

## **Introduction**

Personal development planning (PDP) can involve different forms of reflection and reflective learning. Much has been written and said about reflection in recent times, but for many, it remains a somewhat mysterious activity – or is it a capacity? Whatever it is, if the titles of modules and courses, and references in QAA benchmark statements are anything to go by, we are using it extensively in a range of contexts in learning and professional development in higher education. This paper is intended to provide a background to reflection and reflective learning for the development of PDP within the higher education sector. It will provide a brief guide to current thinking about reflection, a discussion of its application in higher education learning and some practical support for the use of reflective activities.

## **Developing a conception of reflection**

Like many topics in higher education, the notion of reflection has encouraged both a theoretical and a practical literature. The focus of this paper is primarily on the practical uses of reflection but a brief discussion of theoretical approaches will locate the thinking in an academic context and it will facilitate further study of the topic where this is required. The aim in this section is to produce a conception of reflection that takes account of the theory but that can be applied practically and usefully in formal and informal learning contexts. But we start from where we are.....

## **Starting from where we are.....a common-sense view of reflection**

There is no point in defining reflection in a manner that does not relate to the everyday use of the word if further confusion is not to be created. 'Reflection' a word we use in everyday conversation. What might we mean by it?

In common-sense terms, reflection lies somewhere around the notion of learning. We reflect on something in order to consider it in more detail (eg 'Let me reflect on that for a moment'). Usually we reflect because we have a purpose for reflecting – a goal to reach. Sometimes we find ourselves 'being reflective' and out of that 'being reflective', something 'pops up'. There has been no conscious purpose as such – but there is a useful outcome and there may have been a subconscious purpose. It is also apparent that we reflect on things that are relatively complicated. We do not reflect on a simple addition sum – or the route to the corner shop. We reflect on things for which there is not an obvious or immediate solution. Often the latter will be instigated by or associated with a range of feelings and the experience of such reflection may be emotional or spiritual. We return to issues concerning emotion and reflection later.

It would seem that reflection is thus a means of working on what we know already. We put into the reflection process knowledge that we already have (thoughts, ideas, feelings etc), we may add new information and then we draw out of it something that accords with the purpose for which we reflected.

A simple definition of reflection might be:

Reflection is a form of mental processing – like a form of thinking – that we use to fulfil a purpose or to achieve some anticipated outcome. It is applied to relatively complicated or unstructured ideas for which there is not an obvious solution and is largely based on the further processing of knowledge and understanding and possibly emotions that we already possess (based on Moon 1999):

### **Some theoretical approaches to reflection**

Reflection is theorised in so many different ways that it might seem that we are looking at a range of human capacities rather than apparently one. To start with, we review briefly several of what might be called the 'classical' approaches.

**John Dewey** wrote on the educational implications of a range of human mental functions over the earlier years of the twenty first century. His work was based on keen observation of the functioning of others and reflection on his own processes. Dewey's interest in his own processes makes his writing particularly interesting in the current context. It appears that somewhere in the middle part of this century education researchers forgot that they are people too with, between their finger-tips, an amazingly useful resource from which to learn about human functioning. The return to this understanding could be seen to be an important benefit of the interest in reflection. The legitimacy of 'I' and 'my functioning' is being reestablished and the role of personal development planning will also carry this forward in the near future.

Dewey saw reflection as a specialised form of thinking. He described it as: 'a kind of thinking that consists in turning a subject over in the mind and giving it serious thought'. His definition of reflection is that it is:

'Active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and further conclusions to which it leads...it includes a conscious and voluntary effort to establish belief upon a firm basis of evidence and rationality' (Dewey, 1933).

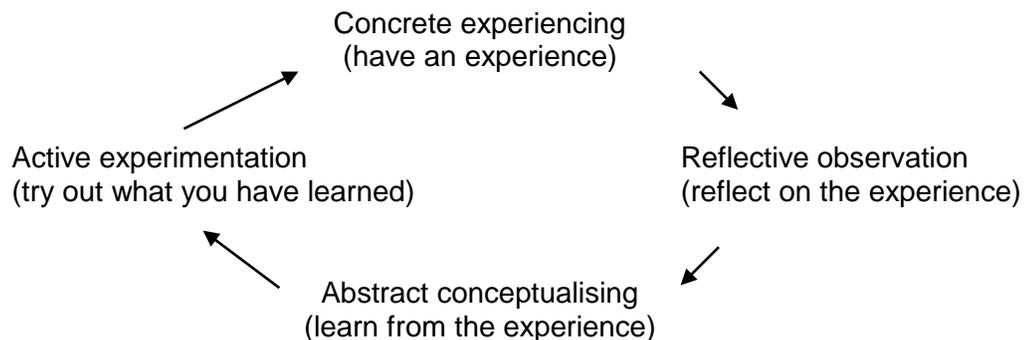
**Jurgen Habermas** (1971) focused on the way in which humans process ideas and construct them into knowledge. Reflection plays a role in this process. Habermas talked about three kinds of knowledge –

- instrumental knowledge – where we know 'how' or 'that' and where the concern of the knowledge is to understand and thereby function within, and control our human environment.
- knowledge that is concerned with the interpretation of human action and behaviour. We largely 'interpret' in the social sciences in order to better our understanding of society and human behaviour.

- knowledge that is a way of working with knowledge, acting on the first two forms of knowledge. This form of knowledge is developed through critical or evaluative modes of thinking and leads towards the emancipation or transformation of personal, social or other situations. It concerns the quality of the bases on which we make judgements.

There is some disagreement about the role of reflective processes in the development of instrumental knowledge – given that the development of sophisticated science can match this form of knowledge. However, it certainly has an important role in the interpretation and comparisons of understanding in the second level and in the critical and evaluative modes of the third.

**David Kolb** (1984) is well known for his development of the Kolb cycle – or cycle of experiential learning. The cycle is drawn in many different ways using different words that sometimes seem to affect its meaning. It is depicted below in a simplified manner that it is not too far from Kolb's words:



The cycle revolves with new learning undergoing active experimentation and 'recycled' through new experiencing. In this way what was a cycle becomes a spiral (Cowan 1998). Thus Kolb considered reflection as a mental activity that has a role in learning from experience. In the Kolb cycle, reflection features as a development of the process of observation – and apparently it occurs before a person has learnt. Others would see reflection as part of learning and part of the processing of material already learned, having a kind of cognitive 'housekeeping role' as well as generating new learning (Moon, 1999a). The notion of reflection as part of the means of learning something new seems to conflict with the common-sense use of the term (above).

There is a massive literature on experiential learning, much of which is based on the Kolb cycle, and much of which perhaps over simplifies what is an immensely complex activity. While the cycle does have value, it may say more about how we manage the learning of others, than about the process of learning *per se* (ie. it is more about the teaching process).

**Donald Schon** focused on reflection in professional knowledge and its development (1983, 1987). He suggested that there is a crisis in the professions related to a mis-understanding of the relationship of theory to practice and of the kind of theory that a professional uses to guide her practice. The espoused theory - as learnt in formal institutions and in professional training - is not the theory that proficient professionals eventually use to guide practice. They build up an expertise from their practice (theory-in-use) by being reflective. Schon noted that the theory in use tends to be tacit. Professionals are not necessarily able to describe the basis on which they act. A particular role of professional development is to make this 'knowing-in-action' explicit so that it can be the subject of further reflection and conscious development.

Schon suggests that there are two types of relevant reflection. Reflection-on-action is the reviewing that occurs after an event while reflection-in-action is part of the processing of an effective practitioner while actually acting. There are doubts expressed about the existence of a form of reflection that occurs while an individual is acting (eg Eraut, 1994) and sometimes Schon has been inconsistent in his writing. However he has had great influence in stirring up debate on the nature of professional knowledge and the role of reflection in professional education.

Many others have written about reflection, most developing ideas from those mentioned above. Examples are Boud, Keogh and Walker, 1985; Boud and Walker, 1998; Cowan, 1998, and Brockbank and McGill, 1998. Much of the material in this paper is derived from Moon, 1999 which takes a broader and sometimes more critical view of reflection and focuses on its relationship to learning.

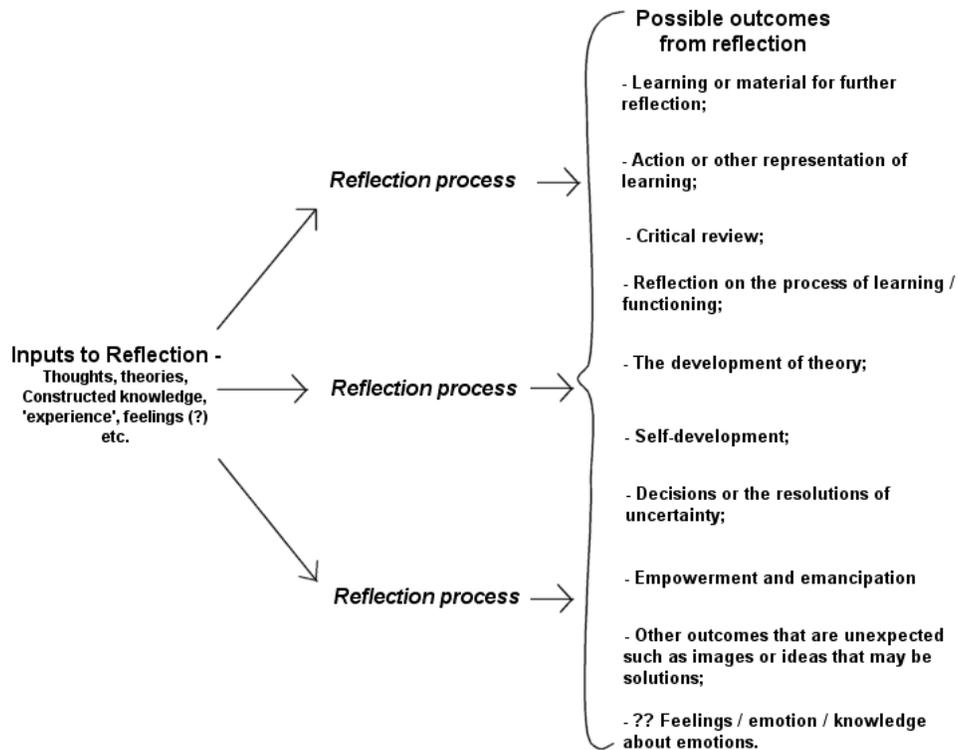
We thus have described a common-sense view of reflection and those of four influential theorists but we could be reviewing four different human activities that happen to have the same name – reflection. Might there be a common idea lurking there, or an explanation as to how the ideas could fit together?

Moon (1999) suggests that the differences in approach are accounted for largely by different focuses - either on the process of reflection, on the purpose for it or the outcomes of reflection – in effect, how it is used. Schon, for example, is concerned about reflection as a mechanism for professional and perhaps personal development while Habermas is concerned with its role in the building of theory. Kolb explores the role of reflection in learning – setting a context for it, but referring relatively little to reflection itself. Dewey is exceptional in taking a holistic view of reflection as a process – a view that accords with the common sense definition above.

Before we pull these ideas into a summarising model there is one more stray factor that some, but not all of the approaches to reflection mention and that is the role of emotion in reflection. Some theorists see the role of emotion in reflection as very significant and frequently neglected (eg. Boud, Keogh and Walker, 1985). However, there are questions to be asked. Is the emotional content of reflection always present and influential? We would seem to be able to reflect on a number of ideas without emotional content to the reflection. Then - are emotional effects the subject matter of the input and output of reflection (like other ideas on which reflection occurs), or do they steer the process of reflection (acting as a kind of milieu in which reflection takes place). Could they be part of the process of reflection? If they are part of the input and / or outcome – is it 'knowledge of how I feel' or is it the actual feeling that is part of the input and / or outcome? All of these seem to fit experiences of reflection and there is no clear answer in the literature.

A relatively simple input – outcome model of reflection seems to summarise the variety of approaches to reflection in the literature. It locates the approach of Dewey and the common-sense definition as concerned with the input and the actual psychological event of reflecting with others largely concerned with the outcomes of reflection. In other words, it suggests that reflection is a simple process but with complex outcomes that relate to many different areas of human functioning. Fig 1 provides a summary of these ideas and a basis for the consideration of reflection in PDP. Broadly it adopts the definition for the process of reflection on page 2 but recognises that there are different contexts for reflection that often influence our understanding of its meaning.

### **Fig 1 An input / outcome model of reflection**



## The relationship between reflection and learning

What is the relationship between reflection and learning? Much has been written about both reflection and learning and there seems to be an assumption that reflection is related to learning – but what is the relationship? We explore it in this section (there is more detail in Moon, 1999)

## Reflection and the learner's approach to learning

One set of ideas that seems to be significant to unraveling the relationship between learning and reflection within the process of learning seem to be the research on approaches to learning (Marton, Hounsell and Entwistle, 1997). This research suggests that there is a fundamental difference in success in learning between adopting a 'deep' approach and a 'surface' approach to a learning task. A deep approach is where the intention of the learner is to understand the meaning of the material. She is willing to integrate it into her existing body of previous ideas, and understandings, reconsidering and altering her understandings if necessary. The new ideas are 'filed' carefully and integrated. In contrast, a surface approach to learning is where a learner is concerned to memorise the material for what it is, not trying to understand it in relation to previous ideas or other areas of understanding. It is as if the new ideas need to be retained for the moment, but not 'filed' for any lasting purpose.

These approaches to learning are not 'either or' situations, but at extremes of a continuum and the same learner may choose to learn differently according to the task at hand. The conception of a continuum of approaches to learning allows us to hypothesise a hierarchy of stages of learning along

the continuum that characterise surface and then progressively deeper approaches to learning. This is a useful device when we attempt to locate reflection in the process.

It is important to note that we cannot actually see that learning has occurred, we can see only the results of learning which can be termed the 'representation of learning'. The same area of learning might be represented in different ways – writing, oral account, graphic display and so on and it is through the description of the representation of learning that we identify the stages of learning. The stages are as follows:

**Noticing**, - the least detailed form of learning – you cannot learn something if you do not notice it at some level (which could be unconscious). Representation is of the material as memorised, modified only by the degree to which it is forgotten.

**Making sense** – getting to know the material as coherent – but only in relation to itself. Facts may be fitted together like a jigsaw but not related to previous understandings. Representation is coherent reproduction, but not related to other ideas and not processed.

**Making meaning** – the beginnings of deep approach – there is a sense of meaningfulness but there is not much evidence of going beyond the given. Representation is of ideas that are integrated and well linked. There is the beginning of development of a holistic view.

**Working with meaning** – a sense now of going beyond the given, linking into other ideas. There is the creation of relationships of new material with other ideas. Representation is reflective, well structured and demonstrates the linking of material with other ideas which may change as a result.

**Transformative learning** – evidence that the new learning has transformed current understandings in reflective processes. Representation demonstrates strong restructuring of ideas and ability to evaluate the processes of reaching that learning. There are creative / idiosyncratic responses.

On the basis of this model, There are at least three ways in which reflection might be seen as relating to learning.

- a) Reflection has a role in the deeper approaches to learning - the last three stages described above, but not in surface approaches to learning (the first two stages);
- b) We learn from representing learning – when we write an essay or explain something or draw a picture of it, we represent it to ourselves and learn from the re-processing (Eisner, 1991). This is a reflective process;
- c) We 'upgrade' learning. For example, we can go back to ideas learnt only to the stage of 'making sense' (eg in the form of facts – bits and pieces) and can reprocess those ideas through reflection, integrating them with current understandings (Vygotsky, 1978). This might be conceived as a kind of 'chewing the cud' exercise - or cognitive housekeeping (see earlier).

These forms of learning from reflection are commonly exploited in the patterns of higher education pedagogy. In the case of the first (a), there is much literature on the encouragement of students to take a deep approach to learning (Marton et al, (1997). At the same time, there is acknowledgement that nature of current higher education may inhibit these attempts (lack of contact with students, the

'boxed' nature of learning in a modular system etc). In particular it is worth remembering that assessment tends to drive student learning and if students (can) perceive that a deep approach is the manner in which to succeed in a learning task, they are more likely to adopt such an approach.

In terms of learning from the representation of learning (b), we ask students to reprocess their learning into essays, examinations, reports and explanations in tutorials. It is interesting to consider the implications of Eisner's suggestion that we learn differently from different forms of representation. In different forms of representation we exploit reflection differently. We probably do not fully enough exploit the representation of learning as a means of enhancing learning in current higher education.

A well functioning tutorial system is an example of a means by which we encourage students to upgrade their learning (c). A student lecture is not ideal ground for taking a deep approach to learning. It seems likely that the attempt to get notes down on paper would interfere with the processing involved in taking a deep approach to learning. Preparation for and involvement in a tutorial is the opportunity for many students to reflect on and process their learning into a more meaningful state – in other words, to 're-file' it. Revision for examinations is another opportunity for review of previous learning such that understanding is deepened (Entwistle and Entwistle, 1992).

It is interesting to note that the value of the Kolb cycle (see above), and the whole notion that learning is enhanced through experimentation or 'doing' is explained by a) and b). If learners are required to represent their learning in some meaningful activity, they will have been forced to adopt a deep approach to the learning in the first place – or to upgrade their surface quality learning (c) into more meaningful material.

## **Reflection provides the right conditions for learning**

We have suggested above some ways in which reflection is immediately related to the learning process, but there also seem to be other forms of this relationship that are usefully described in the notion that the activity of reflection provides the right conditions for good learning (Moon, 1999a). We summarise these ideas below, continuing the lettering system from above since these are more ways in which learning and reflection are interrelated.

- d) Reflection slows down activity, giving the time for the learner to process material of learning and link it with previous ideas. There is evidence that when a lecturer pauses in a lecture, the 'wait time' enables students to learn better (Tobin, 1987). We could more often stop and ask students to think about an issue that has arisen in a lecture (etc).
- e) Reflection enables learners to develop greater 'ownership' of the material of learning, making it more personally meaningful to themselves and improving their grasp of it (Rogers, 1969). It will also enhance the student's 'voice' in her learning (Elbow, 1981).
- f) A particularly important means by which reflective activity generally supports learning is through the encouragement of metacognition. Metacognition is the awareness of one's own cognitive functioning – in this case, learning. There is evidence that good learners have better metacognitive processes than poor learners (Ertmer and Newby, 1996). Study skills programmes that support learner's awareness of their learning processes seem to be more successful than those that focus on techniques (Main, 1985).

- g) We suggested above that reflection occurs when we are dealing with material that is relatively complicated – or ill-structured. If we are encouraging students to reflect, we are, in a sense, challenging their learning. There is evidence that it is by challenging learners with ill-structured material of learning, that they improve their cognitive ability (King and Kitchener, 1994).

## Reflection and personal development planning

We summarise to this point. The initial sections above reviewed the nature of reflection – how it is seen in theory and how theoretical views are related to the common sense view of reflection. The manner in which reflection is both involved in and enhances the quality of learning was explored and illustrated in the latter section.

This brief section suggests a few methods by which reflection can be integrated into the curriculum. On the assumption that reflection has a valuable role to play in higher education, the methods below serve as vehicles for reflection within the curriculum. It is important to note that the methods listed, serve to bring into the curriculum only what the curriculum designer chooses to put in. The concern may be to integrate the skills of reflective practice or to bring about a product or an outcome from the reflective process – as listed in Fig 1. Just asking students to write a learning journal, for example, may bring benefits, but they will be haphazard. A purpose and an idea of the kind of outcome of reflection is required – particularly if the reflective activity is to be assessed (see below).

Some methods for integrating reflective activity into the curriculum are:

- learning journals, logs, diaries. These are usually written (though could be in graphic form or audio-tapes, handwritten or electronic). They generally consist of reflection over a sustained period, maintained with the intention of improving or supporting learning but are of many different forms. They may be structured or unstructured. Learning journals have been used successfully in most disciplines including the sciences and mathematics (Moon, 1999a).
- portfolios: the notion of a portfolio is diverse and most involve some reflective activity. They span a range of methods from the unreflective compilation of work, to collections of coursework and reading with reflective comments, to coursework with an attached overview, to something very akin to a learning journal.
- reflection on work experience – the work may be simply the part time work that students are doing anyway (eg the local bar etc). The aim may be to help the student make sense of the world of work in order to develop employment skills, or to use the experience as a basis for learning about self and personal functioning (eg Colling and Watton, 2000, Watton and Moon, 2002 – in preparation)
- reflection in work-based learning: here the reflection is likely to be used to make sense of a specific area of work practice (Boud and Garrick, 1999).
- reflection on placement learning, fieldwork, year-abroad and so on. Again this may be similar to a learning journal or a portfolio. The underlying intention here may be to enable students to learn to learn from experience, or to make greater use of learning where there is no formal guidance or teaching.

- reflective exercises: there are many 'one-off' exercises for the encouragement of reflection. They may be related closely to the discipline studied or to more generic skill or personal development. These may be followed in the classroom or for assignment work or even beyond the curriculum. Examples are contained in Angelo and Cross, 1990; George and Cowan, 1999; Moon, 1999 and 1999a).
- in peer and self assessment: when students are asked to review their own or the work of others in self or peer assessment they are likely to be reflecting on the work in relation to their perception of how they think it should appear. This activity is enhanced if they are asked to write notes on their experience of the assessment process or, perhaps (in peer assessment) on what they accept and reject of a peer's comments on their work (Moon, 2002).
- in careers or personal development work in the context of student development, counselling, careers work, pastoral tutorials etc.
- in APEL (accreditation of prior experiential learning): in such situations, students are asked to relate their prior (uncertificated) learning experiences to the learning outcomes of an existing programme so that they can claim credit for learning that has already been achieved.

In the context of academic work, if there is to be an emphasis on reflection, it is important that this is signalled possibly in the aim, but particularly in the learning outcomes for the module. Because learning outcomes imply assessment criteria and assessment processes, this enables the proper embedding of reflection into the curriculum, and the justification of it in quality review (Gosling and Moon, 2001; Moon, 2002 - in press).

Another encouragement to embed reflection into the curriculum comes from the QAA subject benchmark statements (QAA, [www](http://www.qaa.ac.uk)). Some subject groups make considerable reference to reflective activities to be expected of students at the honours degree stage (level 3/Honours).

## **Issues relating to the introduction of reflective activity in the curriculum**

We have suggested that reflection has found a specified role in the higher education curriculum in various ways in recent years. It has had a particularly strong role in professional education and development – with nursing, teacher education and social work as the principle examples. It appears now in work-based learning and work experience and in activities such as learning journals (see above). From these uses of reflective learning, we can begin to develop some ideas about the role of reflective learning in the curriculum and the manner in which to introduce it. This is the subject matter of this section.

### ***Students' ability to reflect***

An impetus to the thinking that underlies this section is the frequent observation that not all students find reflection easy when it is introduced as a specific requirement. Some will simply 'take to it', understanding its role in their learning and managing the process well. Some, however, who may be good students otherwise, will not understand what is meant by it – and will ask 'what is it that you

want me to do?’ It is important to recognise that some staff will not understand reflection either. The requirement to write reflectively for the fast-track Institute of Learning and Teaching application form has been as challenging to some staff as setting reflective tasks for some students. Staff who introduce reflective activities are likely to be those who understand reflection. They may not understand how other students or staff could fail to comprehend the concept.

Sometimes there are inter-disciplinary issues. The discourses of some subjects are, by nature, more likely to require reflective activity ‘on paper’. In others, such as science subjects, the same activity probably occurs mentally - and the written report may be the product but not the representation of reflection. We contend that deliberately introduced reflective activity can play a role in supporting any discipline. It is of note that reflective journal activity is described in over thirty-two disciplines in the literature (Moon, 1999a)

There may also be cultural issues to consider in the introduction of reflective activity. Some languages do not have a word for reflection – and without a word, some students find it particularly difficult to grasp the concept. We should be aware that misconceptions about the activity of reflection occur very easily.

In terms of introducing reflective activities to students in a deliberate manner – as, for example, to fulfil PDP requirements, it is worth considering a number of factors. Firstly, it is probable that we all go through the process of reflecting and this occurs whether or not it is introduced as a technique in higher education. When we ask students to reflect in their learning in the academic context, we will probably be asking for an activity that is similar to, but not exactly the same as common sense reflection. Academic reflection will be more structured. There will be a purpose for it. We may be giving structures – such as the Kolb cycle – to follow. We are also likely to be viewing (if not assessing) the results of student reflective activity and it will not be a private and personally motivated activity. If we are viewing the work, we will be wanting the object or context of the reflection to be described. In our private reflections, we do not systematically describe what we are about to reflect on – we just do it. Academic reflection is, therefore, more structured and more formal than what we will term ‘informal’ reflection.

### ***The depth of reflection***

Another observation that has been frequently made about the use of reflective activities with students concerns the depth of reflection. Reflection can be superficial and little more than descriptive or can be deep and transformative (and involved in the transformative stage of learning). This has been discussed in the literature, often alongside the observation that it may be difficult to get many students to reflect at greater depth (Hatton and Smith, 1995). Before the introduction of reflective activity, it is worth considering the depth of reflection that might be required for the intended learning. For many situations within the curriculum, deep reflection will not be necessary – but where students are, for example, reflecting on their professional behaviour, reviewing their attributes and approaches, then deeper levels of reflection, which can result in behaviour change, will be necessary.

### ***The presentation and deepening of reflective activity***

Experience of introducing reflective activities in a work experience module has suggested that a two stage guidance process to reflection may be helpful to students. The ‘presenting reflection’ stage utilises approaches that introduce the idea of reflection.. Later, a second stage of guidance focuses on deepening the process of reflection. At both stages, multiple approaches providing different ideas

and activities around reflection seem to be more successful than attempts at verbal instruction. Suggested activities / approaches are listed below with references to some resources in the Appendices.

## **The first stage – presenting reflection:**

### **Consider - what is reflection?**

Students need to know that they all can reflect consciously, but that it may not be a habit that some use. It can be helpful to give them a simple definition such as that used earlier in this paper. If students feel that they do not know what 'being reflective' is, it can be useful to almost trick them into being reflective for a moment asking them, for example, to think about what they have learnt from experiences of paid work etc.

It may then be helpful to use the map of reflective writing (Appendix 1) as an indication of the kind of events that might be involved in the process of reflection.

### **Consider why reflection is being used to facilitate this area of learning**

The response will depend on the purpose for the work in which reflection is involved. The answer might include the following the idea that we use reflection in order to learn from situations in which there is no curriculum – but where we have to make sense of diverse observations, ideas and data as well as personal research (eg by asking questions). Reflection is used to make sense of unstructured situations in order to generate new knowledge. It is important to be clear that the activity might be introducing the *skill* of reflective learning or *generating knowledge* by using reflection to make sense of something.

### **Consider how reflection differs from more familiar forms of learning**

We tend to use reflection when we are trying to make sense of how diverse ideas fit together, when we are trying to relate new ideas to what we already know or when new ideas challenge what we already know (ie taking a deep approach to learning). Reflection is the process we use when working with material that is presented in an unstructured manner – not organised and purified as in a traditional curriculum.

### **The issues around the use of the first person – 'I'.**

Most students will have learnt that they should not use the first person singular in an academic environment. They can be confused if they are suddenly being encouraged to use 'I'. It may be helpful here to talk about the manner in which knowledge is constructed with the involvement of the individual knower. The use of the first person acknowledges this process. Equally it ought to be reasonable to ask students to look for evidence to support their views.

### **Give examples of reflective writing – good and poor.**

Students find real examples of reflective writing, learning journals, even published work (fiction or biography) helpful. Appendix 2 provides an example of reflective writing to which we will refer several times in this section. It consists of three accounts of the same event, written at three different levels of reflectivity. It also provides some criteria that attempt to distinguish between the levels of reflection. At this stage of presenting reflection, it may be sufficient simply to present the accounts without the criteria (possibly just the first two) and use them as a basis for discussion. Students can be asked which is the most reflective and why.

### **Generate discussions of students' conceptions of reflection**

It is useful at some stage (perhaps as a spin-off from another activity) to encourage students to talk about what they think reflection is. This will provide an opportunity for misconceptions to come to light (eg due to cultural differences). For example, some students will consider that you only use reflection when something has gone wrong – deciding what could be done better next time.

### **Enable practice and provide opportunities for feedback**

Students can be asked to reflect on their own performance in something – for example, their performance in giving a 5 minute talk. They talk and then write a reflective account of how their performance went, weaknesses and strengths, assessment against their expectations, relationships to presentations given before etc. The impact of the activity can be increased if they are asked to write a descriptive account of their performance before they write reflectively.

### **Give a starting exercise that eliminates the blank page.**

Blank pages are threatening to many (but exciting to some). It is a good idea to get students started on their reflective work by getting them to do some reflective writing before they know they have really started. This will mean the development of some structure such as questions that will stimulate reflective writing.

### **Have other tools available to help students to get started.**

There are plenty of exercises to encourage reflective writing. The use of these exercises in occasional class situations can help students to expand the areas in which they are thinking and to begin to deepen their reflection.

### **Expect to support some students more than others**

Some students will need much more support than others. It may be possible to develop a system of peer support.

### **Be open about your need to learn about reflection as a form of learning and how you can improve your management of it**

Demonstrating that it is not only students who need to learn to reflect can be very helpful for staff and students. Staff might write a learning journal about the process of helping students to learn reflectively – and share elements of it with the students.

## **The second stage - deepening reflective work**

The deepening of reflective activity depends partly on developing awareness of the constructed nature of knowledge – understanding, for example:

- that events can be conceived of differently according to the frame of reference;
- that frames of reference may be different at different times;
- the role of emotions in guiding our conceptions of events or people;
- that different disciplines rely on different structures of knowledge and have different ways of working with knowledge.

### **Use examples to demonstrate deeper reflective activity**

We suggested the use of material such as 'The Presentation' (Appendix 2). The focus now would be on the third account and the use of the criteria that distinguish the deeper account to the more descriptive accounts.

### **Introduce a framework that describes levels of reflection**

An example is Hatton and Smith (1995). The framework below resulted from work with students' reflective writing and below it is presented in simplified form. It influenced the criteria used in 'The Presentation' (Appendix 2) – and a simpler version could be prepared from the exercise if required.

**Descriptive writing:** This is a description of events or literature reports. There is no discussion beyond description. This writing is considered not to show evidence of reflection. It is important to acknowledge that some parts of a reflective account will need to describe the context – but in this case, writing does not go beyond description.

**Descriptive reflection:** There is basically a description of events, but the account shows some evidence of deeper consideration in relatively descriptive language. There is no real evidence of the notion of alternative viewpoints in use.

**Dialogic reflection:** This writing suggests that there is a 'stepping back' from the events and actions which leads to a different level of discourse. There is a sense of 'mulling about', discourse with self and an exploration of the role of self in events and actions. There is consideration of the qualities of judgements and of possible alternatives for explaining and hypothesising. The reflection is analytical or integrative, linking factors and perspectives.

**Critical reflection:** This form of reflection, in addition to dialogic reflection, shows evidence that the learner is aware that the same actions and events may be seen in different contexts with different explanations associated with the contexts. They are influenced by 'multiple historical and socio-political contexts', for example.

(developed from Hatton and Smith, 1995)

### **Introduce exercises that involve 'standing back from oneself'.**

Eg students write about their own processes of learning using a semi objective and critical stance.

### **Introduce exercises that involve reflection on the same subject from different viewpoints of people / social institutions etc.**

Eg students could be asked to reflect (or talk / present) on an event in a shop from the point of view of the supervisor, customer, counter assistant, onlooker and so on.

### **Introduce an exercise in which there is reflection on the same subject from viewpoints of different disciplines**

In terms of different disciplinary standpoints, students might be asked to describe a child's pet dog from the point of view of practitioners in sociology, psychology, medical sciences, English, art and so on.

### **Introduce an exercise that involves reflection that is influenced by emotional reactions to events**

Students can be asked to describe a real or imaginary event and to write fictitious reflective accounts at periods after the event, each account illustrating a change of emotional

orientation to the event. The important point here is that emotional state influences the manner in which a subject is viewed. If the state changes, the view may change. Such an exercise enables recognition of issues about the 'correctness' of conclusions at any one time and the constructed nature of knowledge.

### **Collaborative methods of deepening reflection –eg critical friends and group, activities etc.**

Some methods involve small group or pair work. The groups will need to have common ideas about methods by which to deepen reflection and to see themselves as peer facilitators. The groups or pairs may work together over a period, learning how best to help each other by prompting and asking questions, querying frames of reference and so on.

### **Second-order reflection**

Second order reflection is represented in any technique that requires a student to look through previous reflective work and write a reflective overview. One of the most convenient ways to do this is the double entry journal. Students write only on one page of a double spread or on one half of a vertically divided page. They leave space blank until at another time, they go through the initial material writing generating further comments that emerge from their more coherent overview of the initial work.

## **Assessment and reflective learning**

A common scenario is as follows: students have been asked to write a reflective task such as a learning journal. They have been told that the journals will be assessed – and that the completed work is due in next week. No-one has really considered how they will be marked. Nor did anyone think of the assessment process when they gave the initial instructions to the students as to what to do in the journal.

Assessment is a difficult issue when it concerns reflective material. A fair question is that since reflection is an encouragement for learners to follow the lines of their own thinking, to work without a curriculum – how can it be marked? It is entirely reasonable in one sense, however the situation is more complex in ways that this section will briefly explore. To start with there is a justification for assessment of reflective work in many programmes: if we see value in student's reflective work and they will not engage in unassessed work, the work will need to be assessed in some way.

In terms of assessment of reflective (or any) tasks, a first rule is to think about how the task will be assessed at the time that it is developed and relate the form of assessment to the purpose and anticipated outcomes of the it. Sometimes the purpose will be to develop reflective writing / reflective practice skills and then the assessment criteria will need to concern the processes evident in the assignment. If it is the outcome of the process of reflection that is important, then the assessment task can be an essay or an examination that tests the knowledge developed. Since this is no different from other assessment, we focus on the situation where skills of reflection are to be developed.

How, then, is the process of reflection to be assessed? There is a need to develop assessment criteria that can guide the work of the students and enable fair marking. The assessment criteria will depend firstly on the purpose to be fulfilled by the reflection, and secondly on how the task was introduced. If, for example PGCE students have been told that they should reflect on how their teaching facilitated or inhibited the learning of school students, then at least one criterion could reflect just this process. If students are expected to demonstrate that they have engaged in all of the

processes of reflection in the reflective writing map (Appendix 1) then criteria can be developed from the map (for a list of features of reflective writing that can be developed into assessment criteria, see Moon, 1999a). If students are told that they should reflect deeply, then the Hatton and Smith criteria (above) or those in Appendix 2 are likely to be helpful.

There are devices that seem particularly helpful in shaping the quality of reflective work. For example, sometimes it will be useful to assess for such factors as presentation or length of the assignment. Criteria can be set up whereby very poor presentation loses marks; excellent presentation gains marks but the middle range that is adequate, will neither lose or gain marks. In a similar way, students may be told that they will gain a few marks for regularly handing in their work for monitoring.

It is not always necessary to allocate a mark to a piece of student work. A journal may be considered 'adequate' and passed, or 'not yet adequate' and not yet passed. While this does not actually change the need for criteria, it avoids some of the difficult judgements about work that may be very diverse and / or creative. There can be other ways of rewarding students whose work is deemed excellent and these can provide the motivation that would normally be instilled through a grading process.

The message of this section is essentially that there is no one way to assess reflective work. There are no clearly agreed generic criteria for reflection since different people see reflection as different processes (as has been demonstrated in the early sections) and they set reflective tasks in order to achieve different purposes. Assessment criteria should be developed on the basis of the approach to reflection used for a particular group of students or on the basis of the reading that students are expected to do. It is entirely reasonable to engage students in the process of developing or fine-tuning assessment criteria, if not for their own work, for the work of next year's students (Moon, 2002 – in preparation).

Appendix 3 provides a sample of assessment criteria used for a PGCE student journal in which the map of reflective learning was used to introduce reflection.

## **The context of reflection**

It is probably the case with the introduction of many 'movements' in education that they are used in situations for which they are not suitable. This is the case with reflection if we are to consider it as anything more than a teaching / learning method. To encourage a student to be reflective is to encourage the development of a habit of processing cognitive material that can lead the student to ideas that are beyond the curriculum, beyond learning defined by learning outcomes, and beyond those of the teacher who is managing the learning. Boud and Walker (1998) explore the significance of the context into which reflection is introduced in a stimulating and helpful paper, the principles outlined in which should underpin the development of any institutionally based reflective activity. Rather than list the implications of their paper, we incorporate them in a wider checklist in the format of questions that may be helpful in the development of any reflective activity. We assume the activity to be written (and therefore recorded).

- In this activity, are there limitations on the questioning in which students are allowed to engage? (eg – are they allowed to question the curriculum, the teaching situation, the situation of any placement or professional practice learning; their institution; relevant workplaces etc)?

- Does the assessment system enable students to be really free to reflect and express their own views?
- Are student told to 'reflect' when actually they will simply follow a recipe (eg set questions; strict adherence to the Kolb cycle (Kolb, 1984))?
- Is learning really going to occur or are students going through the motions of reflection (eg filling in boxes or responding to questions) without learning from it? In other words, are they either, or both:
  - coming to conclusions about the subject matter?
  - learning how to reflect and perhaps evaluate their processes of reflection?
- Is the material that students are encouraged to produce more than descriptive?
- Are students being encouraged to write for themselves, or is there pressure (through monitoring and assessment) for them to write what they think the tutor wants to see?
- Have there been appropriate guidelines developed for students with regard to ethical issues and confidentiality of material that they produce?
- Knowing about the personal circumstances of a student could be advantageous for staff or others. Is there adequate consideration of the costs / benefits of potentially revealing information for the student, staff and others?

To take better account of the sensitive and ethical issues around reflective work, Boud and Walker talk about the development of a 'local context' – 'like making a space in the organisation for groups of members to operate apart from the immediate pressures to perform'.

## References and Bibliography

Angelo, T and Cross, K  
(1990)

*Classroom Assessment Techniques*, Jossey-Bass, San Francisco

- Collings, J, Watton, P (2001) JEWELS Project: *Learning through Independent Work Experience - Final Report*. JEWELS@exeter.ac.uk
- Boud, D; Keogh, R and Walker, D (1985) *Reflection: Turning Experience into Learning*, Kogan Page, London
- Boud, D and Walker, D (1998) 'Promoting reflection in professional courses: the challenge of context', *Studies in Higher Education*, 23(2), pp191 - 206
- Boud, D and Garrick, J (1999) *Understanding Learning at Work*, Routledge, London
- Brockbank, A and McGill, I (1998) *Facilitating Reflective Learning in Higher Education*, SRHE / OUP, Buckingham
- Cowan, J, (1998) *On Becoming an Innovative University Teacher*, SRHE / OUP, Buckingham
- Dart, B; Boulton-Lewis; G, Brownlee, J and McCrindle, A (1998) 'Change in knowledge of learning and teaching through journal writing', *Research Papers in Education* 13(3), pp291 – 318
- Dewey, J (1933) *How We Think*, D C Heath and Co, Boston, MA
- Dillon, D (1983) 'Self-discovery through writing personal journals', *Language Arts*, 60, (3) pp373 – 379
- Eisner, E (1991) 'Forms of understanding and the future of education', *Educational Researcher* 22, pp5 – 11
- Elbow, P (1981) *Writing with Power Techniques for Mastering the Writing Process*, Oxford University Press, New York
- Entwistle, N and Entwistle, A (1992) 'Experience of understanding in revising for degree examinations' *Learning and Instruction*, 2, pp1 – 22
- Eraut, M (1994) *Developing Professional Knowledge and Competence*, Falmer Press, London
- Ertmer, P and Newby, T (1996) 'The expert learner: strategic, self-regulated and reflective' *Instructional Science*, 24, pp1 – 24
- Flavell, J (1979) 'Metacognitive aspects of problem-solving behaviour', in L Resnick, (ed), *The Nature of Intelligence*, Lawrence Erlbaum, Hillsdale
- Fulwiler, T (1986) 'Seeing with journals', *The English Record*, 32, (3), pp6 - 9
- Fulwiler, T (1987) *The Journal Book*, Heineman, Portsmouth, New Hampshire
- George, J and Cowan, J (1999) *A Handbook of Techniques for Formative Evaluation*, Kogan Page, London

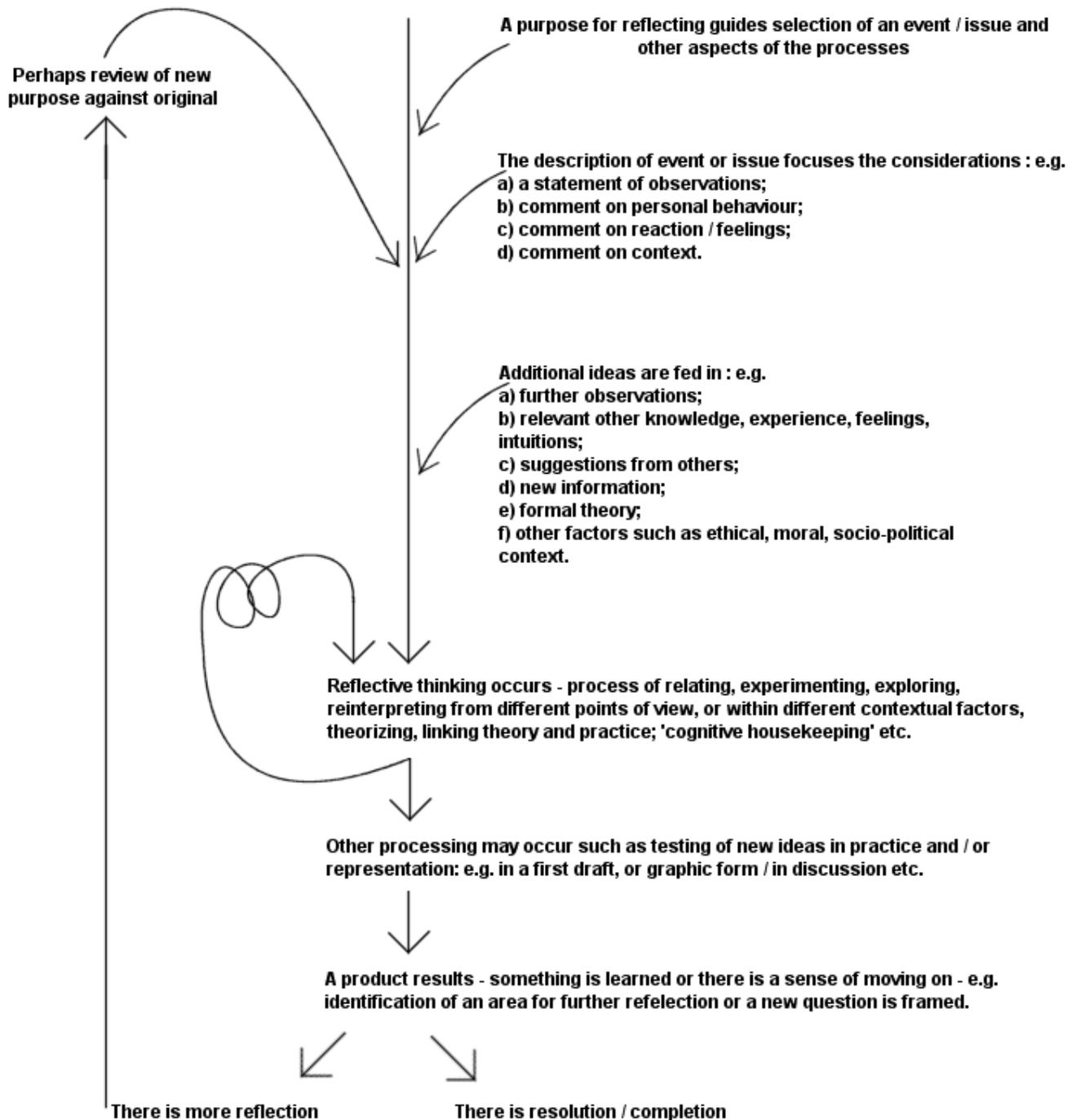
- Gosling, D and Moon, J (2001) *How to Write Learning Outcomes and Assessment Criteria*, SEEC Office, University of East London, London
- Habermas, J (1971) *Knowledge and Human Interests*, Heineman, London
- Hatton, N and Smith, D (1995) 'Reflection in teacher education – towards definition and implementation', *Teaching and Teacher Education*, 11, (1), pp33 – 49
- Hettich, P (1976) 'The journal, an autobiographical approach to learning', *Teaching of Psychology*, 3, (2), pp60 – 61
- Holly M (1991) *Keeping a Personal-Professional Journal*, Deakin University Press, Victoria
- King, P and Kitchener, K (1994) *Developing Reflective Judgement*, Jossey-Bass, San Francisco
- Kolb, D (1994) *Experiential Learning as the Science of Learning and Development*, Prentice Hall, Englewood Cliffs, NJ
- Marton, F, Hounsell, D and Entwistle (1997) *The Experience of Learning*, Scottish Academic Press, Edinburgh
- Main, A (1985) 'Reflection and the development of learning skills', in Boud, D, Keogh, R and Walker, D *Reflection: turning experience into learning*, Kogan Page, London
- Moon, J (1999) *Reflection in Learning and Professional Development*, Kogan Page, London
- Moon, J (1999a) *Learning Journals: a Handbook for Academics, Students and Professional Development*, Kogan Page, London
- Moon, J (2001) *Short Courses and Workshops: Improving the Impact of Learning and Professional Development*, Kogan Page, London
- Moon, J (2002 – in preparation) (Provisional title) *A Handbook of Programme and Module Development: linking levels, learning outcomes and assessment* Kogan Page, London.
- November, P (1993) 'Journals for the journey into deep learning', *Research and Development in HE*, 16, pp299 – 303
- QAA (www) The subject benchmark statements are available at the QAA website – [www.QAA.ac.uk](http://www.QAA.ac.uk)

- Rogers, C (1969) *Freedom to Learn*, Charles E. Merrill, Columbus Ohio
- Schon, D (1983) *The Reflective Practitioner*, Jossey-Bass, San Francisco
- Schon, D (1987) *Educating Reflective Practitioners*, Jossey-Bass, San Francisco
- Selfe C, Petersen, B and Nahrgang, C (1986) 'Journal writing in mathematics' in A Young and T Fulwiler (eds) *Writing Across the Disciplines*, Boynton / Cook, Upper Montclair, New Jersey
- Selfe C and Arabi, F(1986) 'Writing to learn Engineering students journals' In A Young and T Fulwiler, *Writing Across the Disciplines*, Boynton / Cook, Upper Montclair, New Jersey
- Sumsion, J and Fleet, A (1996) 'Reflection: can we assess it? Should we assess it?', *Assessment and Evaluation in HE* 21, (2), pp121 – 130
- Tobin, K (1987) 'The role of wait time in higher cognitive learning', *Review of Educational Research*, 57, (1), 69 – 75
- Vygotsky, L (1978) *Mind in Society, the development of higher psychological processes*, Harvard University press, Cambridge, MA
- Watton, P and Moon, J, (2002 – in preparation) A collection of papers on work experience (not title yet), SEDA, Birmingham
- Wagenaar, T (1984) 'Using student journals in sociology courses', *Teaching Sociology*, 11, pp419 – 437
- Young, A and Fulwiler, T (1986) *Writing across the Disciplines*, Boynton / Cook, Upper Montclair, New Jersey



## Appendix 1

### The processes of writing reflectively: a map of reflective writing



From Moon (1999a)

## Appendix 2

### The Presentation – an exercise in reflective writing

Jenny Moon, SDU, University of Exeter

These are the accounts of a an experience of giving a presentation, written by a 22-year old (Marianne) in her first job after graduating.

#### 1.00

I had to take an agenda item to the weekly team meeting in my third week of working at PIGG PLC. I had to talk about the project that I am on (creating a new database for the management information system). I had done a presentation before and then I relied on my acting skills. Despite the acting, I spent quite a bit of time preparing it in the way that I have seen others make similar presentations.

The presentation at the last team meeting, given by my colleague, went well – she used Power Point and I decided to use it. I decided that a good presentation comes from good planning and having all the figures that anyone might request so I spent a long time in the preparation and I went in feeling confident.

However, I became nervous when I realised they were all waiting for me to speak and my nerves made my voice wobble. I did not know how to stop it. Early on, I noticed that people seemed not to understand what I was saying despite the Power Point. Using Power Point meant that people received my presentation both through what I was saying and what I had prepared on the slides. In a way that meant they got it twice but I noticed that Mrs Shaw (my boss) repeated bits of what I had said several times and once or twice answered questions for me. This made me feel uncomfortable. I felt it was quite patronising and I was upset. Later my colleagues said that she always does it. I was disappointed that my presentation did not seem to have gone well.

I thought about the presentation for several days and then talked with Mrs Shaw about the presentation (there was no-one else). She gave me a list of points for improvement next time. They included:

- putting less on Power Point;
- talking more slowly;
- calming myself down in some way.

I also have to write down the figures in a different way so that they can be understood better. She suggested that I should do a presentation to several of the team sometime next week so that I can improve my performance.

#### 2.00

I had to take an agenda item to the weekly team meeting in my third week of working at PIGG PLC. I had to talk about the project that I am on. I am creating a new database for the management information system. I had given a presentation before and that time I relied on my acting skills. I did realise that there were considerable differences between then and now, particularly in the situation (it was only fellow students and my tutor before). I was confident but I did spend quite a bit of time preparing. Because everyone else here uses Power Point, I felt I had better use it – though I realised that it was not for the best reasons. I also prepared lots of figures so that I could answer questions. I

thought, at that stage, that any questions would involve requests for data. When I think back on the preparation that I did, I realise that I was desperately trying to prove that I could make a presentation as well as my colleague, who did the last one. I wanted to impress everyone. I had not realised there was so much to learn about presenting, and how much I needed to know about Power Point to use it properly.

When I set up the presentation in the meeting I tried to be calm but it did not work out. Early on the Power Point went wrong and I began to panic. Trying to pretend that I was cool and confident made the situation worse because I did not admit my difficulties and ask for help. The more I spoke, the more my voice went wobbly. I realised, from the kinds of questions that the others asked, that they did not understand what I was saying. They were asking for clarification – not the figures. I felt worse when Mrs Shaw, my boss, started to answer questions for me. I felt flustered and even less able to cope.

As a result of this poor presentation, my self esteem is low at work now. I had thought I was doing all right in the company. After a few days, I went to see Mrs Shaw and we talked it over. I still feel that her interventions did not help me. Interestingly several of my colleagues commented that she always does that. It was probably her behaviour, more than anything else, that damaged my poise. Partly through talking over the presentation and the things that went wrong (but not, of course, her interventions), I can see several areas that I could get better. I need to know more about using Power Point – and to practice with it. I recognise, also, that my old acting skills might have given me initial confidence, but I needed more than a clear voice, especially when I lost my way with Power Point. Relying on a mass of figures was not right either. It was not figures they wanted. In retrospect, I could have put the figures on a handout. I am hoping to have a chance to try with a presentation, practicing with some of the team.

### **3.00**

I am writing this back in my office. It all happened 2 days ago.

Three weeks after I started at PIGG PLC had to take an agenda item to the team meeting. I was required to report on my progress in the project on which I am working. I am developing a new database for the management information system of the company. I was immediately worried. I was scared about not saying the right things and not being able to answer questions properly. I did a presentation in my course at university and felt the same about it initially. I was thinking then, like this time, I could use my acting skills. Both times that was helpful in maintaining my confidence at first, at least. Though the fact that I was all right last time through the whole presentation may not have helped me this time!

I decided to use Power Point. I was not very easy about its use because I have seen it go wrong so often. However, I have not seen anyone else give a presentation here without using it - and learning to use Power Point would be valuable. I was not sure, when it came to the session, whether I really knew enough about running Power Point. (How do you know when you know enough about something? – dummy runs, I suppose, but I couldn't get the laptop when I wanted it).

When it came to the presentation, I really wanted to do it well – as well as the presentations were done the week before. Maybe I wanted too much to do well. Previous presentations have been interesting, informative and clear and I thought the handouts from them were good (I noticed that the best gave enough but not too much information).

In the event, the session was a disaster and has left me feeling uncomfortable in my work and I even worry about it at home. I need to think about why a simple presentation could have such an effect on me. The Power Point went wrong (I think I clicked on the wrong thing). My efforts to be calm and 'cool' failed and my voice went wobbly – that was, anyway, how it felt to me. My colleague actually said afterwards that I looked quite calm despite what I was feeling (I am not sure whether she meant it or was trying to help me). When I think back to that moment, if I had thought that I still looked calm (despite what I felt), I could have regained the situation. As it was, it went from bad to worse and I know that my state became obvious because Mrs Shaw, my boss, began to answer the questions that people were asking for me.

I am thinking about the awful presentation again – it was this time last week. I am reading what I wrote earlier about it. Now I return to it, I do have a slightly different perspective. I think that it was not as bad as it felt at the time. Several of my colleagues told me afterwards that Mrs Shaw always steps in to answer questions like that and they commented that I handled her intrusion well. That is interesting. I need to do some thinking about how to act next time to prevent this interruption from happening or to deal with the situation when she starts\*. I might look in the library for that book on assertiveness.

I have talked to Mrs Shaw now too. I notice that my confidence in her is not all that great while I am still feeling a bit cross. However, I am feeling more positive generally and I can begin to analyse what I could do better in the presentation. It is interesting to see the change in my attitude after a week. I need to think from the beginning about the process of giving a good presentation.. I am not sure how helpful was my reliance on my acting skills\*. Acting helped my voice to be stronger and better paced, but I was not just trying to put over someone else's lines but my own and I needed to be able to discuss matters in greater depth rather than just give the line\*.

I probably will use Power Point again. I have had a look in the manual and it suggests that you treat it as a tool – not let it dominate and not use it as a means of presenting myself. That is what I think I was doing. I need not only to know how to use it, but I need to feel sufficiently confident in its use so I can retrieve the situation when things go wrong. That means understanding more than just the sequence of actions\*.

As I am writing this, I am noticing how useful it is to go back over things I have written about before. I seem to be able to see the situation differently. The first time I wrote this, I felt that the presentation was dreadful and that I could not have done it differently. Then later I realised that there were things I did not know at the time (eg about Mrs Shaw and her habit of interrupting). I also recognise some of the areas in which I went wrong. At the time I could not see that. It was as if my low self esteem got in the way. Knowing where I went wrong, and admitting the errors to myself gives me a chance to improve next time – and perhaps to help Mrs Shaw to improve in her behaviour towards us!

\*I have asterisked the points that I need to address in order to improve.

## **Features of the accounts that are indicative of different levels of reflection**

### **1.00**

This account is descriptive and it contains little reflection.

- The account describes what happened, sometimes mentioning past experiences, sometimes anticipating the future – but all in the context of an account of the event.

- There are some references to Marianne's emotional reactions, but she has not explored how the reactions relate to her behaviour.
- Ideas are taken on without questioning them or considering them in depth.
- The account is written only from Marianne's point of view.
- External information is mentioned but its impact on behaviour is not subject to consideration.
- Generally one point is made at a time and ideas are not linked.

## **2.00**

An account showing evidence of some reflection.

- There is description of the event, but where there are external ideas or information, the material is subjected to consideration and deliberation.
- The account shows some analysis.
- There is recognition of the worth of exploring motives for behaviour
- There is willingness to be critical of action.
- Relevant and helpful detail is explored where it has value.
- There is recognition of the overall effect of the event on self – in other words, there is some 'standing back' from the event.

The account is written at one point in time. It does not, therefore, demonstrate the recognition that views can change with time and more reflection. In other words the account does not indicate a recognition that frames of reference affect the manner in which we reflect at a given time.

## **3.00**

This account shows quite deep reflection, and it does incorporate a recognition that the frame of reference with which an event is viewed can change

- Self questioning is evident (an 'internal dialogue' is set up at times) deliberating between different views of her own behaviour (different views of her own and others).
- Marianne takes into account the views and motives of others and considers these against her own.
- She recognises how prior experience, thoughts (own and other's) interact with the production of her own behaviour.
- There is clear evidence of standing back from an event.
- She helps herself to learn from the experience by splitting off the reflective processes from the points she wants to learn (by asterisk system).

- There is recognition that the personal frame of reference can change according to the emotional state in which it is written, the acquisition of new information, the review of ideas and the effect of time passing.

## Appendix 3

### Criteria that underpin the description of a good journal (PGCE secondary)

1. Evidence of critical reflection that results in obvious new and usable learning:
  - a description of the 'stimulant' for reflection (eg incident, quotation, theoretical idea etc);
  - evidence of going back over the incident (etc), thinking about it on paper, bringing to bear relevant extra information (theory, things said, advice, previous experience etc). This is the 'melting pot' stage;
  - the drawing out of some sort of conclusion which may indicate new areas for reflection or something learned;
  - evidence of learning from the reflective process that is then used in the planning or operation of further activities.

(Criteria 2 – 5 were specific requirements of this journal, described in advance to students)

2. Evidence of reflection on teaching experiences and the process of learning to teach.
3. Evidence of reflection on the manner in which pupils (school students) learn.
4. Evidence of learning from the relating of theory to observations and practical situations with respect to any aspect of teaching and learning with inclusion of references to other material.
5. Evidence of a developing self as teacher. This will be demonstrated in accumulating remarks that build towards a 'philosophy of my teaching' or of 'me as teacher' – eg statements of beliefs about procedures, about values, observations that suggest an awareness of taking up a particular style or position as a teacher
6. Presentation in an adequate format- Journals that are excellently presented will gain a few extra marks. Journals that are very poorly presented will lose a few marks but a wide range of presentations will be 'adequate' with no loss or gain of marks. The maximum marks that can be gained and lost as above will be specified in advance.
7. Evidence of 'multi-dimensionality'. Good journals will draw from and refer to a wide range of types of material. For example, a journal that does not display multidimensionality might consider 'what I see happening in the classroom' and relate it to one or two few standard references. A journal that is multidimensional will draw from a range of texts, quotations, pictures, relevant media items and so on. Additionally, it may show evidence of the learner 'standing outside the situation' in order to observe self. It may show evidence of understanding of there being different viewpoints about an event. The opposite to 'multi dimensionality' is likely to be a very narrow journal mostly based on observation or expression of own feelings, with few references etc.

As with presentation, most journals are likely to fall into a wide band of 'adequacy' in respect to 'multi-dimensionality'. A few will lose marks (specified) because they are exceptionally narrow and a few journals will attract extra marks (specified) because they are exceptional in this respect.