

At a glance

- The article provides an introduction to practical aspects of encouraging reflective practice in the curriculum by summarising some of the recent literature.
- Adopting a more reflective approach to learning provides the student with opportunities to recognise and understand their own learning and its progression, and identify the full range of academic and transferable skills developed at university. It also encourages a questioning attitude, enhanced competence in practice and greater learner autonomy.
- An overview of Learning Journals is presented, with advice for getting started, examples of different approaches, and consideration of assessment issues.
- Other strategies are described: Learning contracts, Critical incident analysis, Action learning sets, and learning partners.
- Case studies from the Schools of Health & Human Science and Art & Design follow that show how reflection can be incorporated in the curriculum.

processes involved. Most of this theory relates to seeing reflection as part of a cycle of learning (figure 1). It may also be viewed in terms of reflection-*in-action*, where understanding of new concepts occurs through improvisation and experimentation during an exercise or experience, or reflection-*on-action*, where the learner looks back over an experience and reviews what was learnt. This article takes the latter perspective (presuming that the former occurs in most teaching at this level anyway). It is neither the intention nor within the scope of this account to review all the various theoretical models and their interpretations, so for further investigation, the reader is directed to appropriate summaries listed in the bibliography.

FIGURE 1:
Kolb's 'Learning Cycle'. After Kolb (1984). See Ghaye and Lillyman (1997) for a concise summary of subsequent modifications to this cycle.



Instead, this account aims to raise awareness of strategies used to encourage reflection by presenting an overview of the recent literature that describes these different approaches. This is followed by two case studies to demonstrate how reflective learning works in practice at JMU. First, the Coaching Science undergraduate programme (School of Health & Human Science) where journals and reflective practice form a major part of the curriculum and second, a Work-based Learning module in the Liverpool School of Art & Design.

Benefits to students of a reflective approach to learning

Most aspects of learning are common to all disciplines, but different subject areas naturally place more emphasis on certain learning skills than on others. Consequently, the benefits of reflective practice mirror the particular skills that characterise that subject. For example (and generally speaking here), in disciplines like maths, engineering and the sciences, more emphasis is placed on the understanding of methodology and the processes of problem-solving where solutions are mostly defined by laws. Here, encouraging reflection helps students to frame the problem beyond

ENCOURAGING REFLECTIVE PRACTICE

An introduction to a range of strategies

In its simplest definition, reflection can be seen as 'consciously thinking about and analysing what one has done (or is doing)'. Of course, everyone does this to an extent. But what structured approaches exist that enable students to reflect upon their learning, to understand their own learning processes and thus allow them to become more autonomous? This article provides an outline of one of the most widely used approaches – the learning journal, considers some of the practical aspects involved in its introduction to the curriculum, and presents an overview of other common strategies that may be adopted.

When delving into the literature to learn more about reflection, one tends to be confronted with a great deal of background theory that is both complex and wide-ranging with various generic and discipline perspectives presenting multiple interpretations of the

models of technical rationality prompting them to detach themselves from the problem *per se* and to step-back, identify and then understand the various stages of learning involved in these processes. In subjects where there is a close interaction between academic work and practical experience like health care, teaching & social-work, the emphasis is on professional competence or craft knowledge as much as technical expertise. Reflective practice in this context is critical in providing opportunities for the learner to identify areas for practice improvement and analyse their in-practice decision making processes. It also bridges the gap between theory and practice. Whichever way reflection interacts with the discipline, it is fundamental in allowing students the opportunity to understand their own thinking and influence their learning, which in turn encourages autonomy and provides opportunities for them to identify and record their progression.

Another benefit of a reflective approach is that it encourages students to look beyond their academic accomplishments to recognise the depth and range of other transferable skills learnt. To illustrate the significance of this point I'll draw on my own experience (teaching in geology), where on a typical 3 year programme, students spend a total of ca.90 days out in the field, (of which ca.40 days are part of an independent project). As well as the geology learnt, the students develop a whole host of transferable skills that make them highly employable. Self-motivation (making notes for 6 to 8 hours in driving rain on the north coast of Scotland in April can be spirit crushing), team-working and inter-personal skills become enhanced through the combination of group-work exercises involved and the highly sociable nature of long residential trips. I mention this because when students come to write their CV's at the end of their degree, they detail the knowledge learnt but almost *always* fail to mention this fieldwork or these secondary (highly employable) skills. How many major companies send their employees to say, Dartmoor for the weekend, to encourage motivation, leadership and team-working? And these students have nearly 100 days worth of comparable experience! For graduates that go on to seek employment outside the subject area, the failure to recognise and fully promote this side of their experience is a great waste of an opportunity. A reflective approach to learning thus provides structured opportunities for students to fully recognise and value past experiences and the complete range of skills developed at university and beyond.

To summarise, encouraging a reflective approach to learning fulfils several functions:

- It allows analysis of an individual's experiences and facilitates learning from this experience,
- It encourages critical thinking, a questioning attitude and leads potentially to greater learner autonomy,
- It promotes professional competence by encouraging the recognition of mistakes and weaknesses,
- If logged, it provides written proof of an individual's progression in thinking and deeper understanding for use at the end of their degree to enhance employability,
- It has the added value of promoting 'adult relationships': i.e. an adult learning model which is perhaps what we aspire to in HEI's.



Approaches to Learning: Reflective Practice

LEARNING JOURNALS

The most popular vehicle for promoting reflection is a 'learning journal' (see Moon, 1999a for an excellent introduction to their practical usage). There are many different types (workbooks, diaries, logs, progress files, profiles) but virtually all serve as a point of focus for students to look back over their recent learning and order their thoughts in order to identify strengths, weaknesses, new levels of understanding learnt and review attitudes. They are also used increasingly to record learning in situations like fieldwork and work placements (see second case-study).

Journals may be confidential or open to share with staff, say as a component of a tutorial programme. For the tutor they provide an excellent record of a tutees development over the length of a programme and allow opportunities to identify exactly where a particular student may be struggling and requires further support. In addition to the deeper pedagogic benefit is the journal's potential as a component of a broader professional development document, presenting to potential future employers an excellent record of that individual's experience and cognitive progression. The process of maintaining such a document is an important step in encouraging the graduate to take control of their professional development and career management as a life-long learner.

Types of Journal:

Many different methods for reflective writing exist and the content of different disciplines will largely govern the technique used (Moon 1999a, provides an overview of journal writing in different subject fields, and appropriate references are included at the end of this article). A description of contrasting approaches to keeping a journal are described by Moon (1999a & b), outlined below:

- Diary and autobiographical writing,
- Prescribed writing sessions at the end of exercises,
- The asking of questions to provide structure and to guide issues,
- Use of a journal to accompany other learning (e.g. to run along-side a research dissertation),
- Built into Professional Development Profiles or Portfolios (which are broader in scope, including other documents relating to one's professional life).

Incorporating journals in the Curriculum:

Journals require time before the benefits start to materialise. To be effective as a long-term strategy, care and commitment is required to fit them into the course design in such a way that they become regularly used and then reviewed periodically. This may involve little more than tweaking of existing programmes to accommodate the journals, say, by including reflection as a short exercise (see Box 2) at the end of tutorial sessions or running them in parallel with a particular course, perhaps allotting 5 minutes for completion at the end of a laboratory class. Alternatively they may form a major component of the curriculum (see our first case study). Most authorities on the subject recommend that journals are completed weekly, although some suggest several times per semester. They also emphasise the importance of allocating time to review and summarise the records in order that themes, issues and patterns emerge and thus progression occurs. This could involve an end-semester write-up in the form of a short report.

Getting started:

Keeping learning journals and writing reflectively can seem threatening to some and the student may be turned off by the idea before they start. Therefore, they need to be introduced to the idea carefully and with guidance. General guidelines and considerations for introducing journals can be found in the books by Moon and Gould & Taylor. Techniques for getting started (Knowles, 1993; Gibbs, 1988; Garry & Cowan, 1986) include the following tips:

1. Prior to introducing the journals, create the right atmosphere to demonstrate their purpose and value. The best way to do this is by discussing one's own personal experiences of reflection and how they progressed their teaching or research.
2. Use a series of exercises in reflective writing to introduce the idea.
3. After students have kept journals for a year, get them to write guidance notes for those students who will be introduced to journals the following year.

Both of our case-studies describe how reflection is introduced to the students.

Structure & content:

A popular way of structuring journals in order that sense may be made from an experience is to prompt responses to set questions. The questions may be set by staff, peer-questioning or the basis of guidelines provided by students from previous years. Example questions are shown in Box 1

Box 1: Example of structured questioning. Based on Reid (1994) in Moon (1999). The term experience can refer to an activity at any scale (anything from a single assignment or weeks-worth of study to an Honours dissertation or overview of a year's learning).

Description	<i>What happened?:</i> Dividing the exercise or 'experience' into stages - E.g., different learning stages throughout the course of a dissertation.
Feelings	<i>What were you thinking & feeling?</i> Personal behaviour; Particular worries - E.g. at which stages in the dissertation did you feel out of your depth?; Did confidence grow? How did you react to criticism from your supervisor?
Evaluation	<i>What was good and bad?</i> Identifying specific strengths and weaknesses.
Analysis	<i>What sense could you make of the situation?</i> E.g. was the failure to understand the data and relate the findings to a wider perspective due to your own lack of reading or other reasons? Where did your inspiration come from?
Conclusion	<i>What else could you have done?</i> List all of the activities that would have enhanced the 'experience' and all those that were unnecessary.
Action Plan	<i>If it occurs again, what would you do?</i> What changes in approach are needed - personal & technical? How can you make the most of situations that inspired original thought?

Such an approach may simply involve one side of paper to be completed weekly, and need only take a 5-10 minutes to complete. The benefit of a regular structured approach like this is that students are constantly reflecting on their strengths and weaknesses and continuously identifying a plan for change which can then form the basis of a more substantial periodic review (E.g. an end semester tutorial).

There are many alternative approaches and exercises that may be used in journals, as summarised in Moon (1999b; Box 2).

Box 2: Exercises for use in journals; adapted from Moon (1999b).

Writing from different perspectives: Asking the student to write about their experience of an exercise/event in the third person may help promote a different viewpoint of their approach to the problem.

Unsent letter: Writing the experience in the form of an honest open letter to someone. The letter is then kept in the journal.

Reflection on a book or reading assignment: Using the journal to keep a running commentary on reading and writing tasks - a good way of encouraging a student's feelings about a piece of literature.

A critical friend: Assigning partners over a set period of time for the purpose of comparing and criticising experiences and approaches (see below).

Describing the process of solving problems: This may be particularly useful in the sciences or subjects that have a structured sequence of stages in the process of problem-solving.

Focussing on past experience that has relevance for current learning. Drawing parallels with different experiences may provide a new outlook and promote a more imaginative approach.

Lists: Writing lists can generate lots of ideas 'What am I good at?', 'Things I could change to encourage me to read more'. Lists could be generated by peer-discussions during a tutorial.

Stepping stones: Starting with a topic/experience in mind, the writer lists in chronological order, their memories of this 'event'. By promoting memory recall, this often brings out unexpected experiences and can be interesting if a whole group of individuals, each working on this topic, share ideas.



Assessing journals:

Should journals be assessed? This is a contentious question, the two opposing views of which as summarised by Moon (1999a) & Boud & Knights (1996) are:

Difficulties with assessment

- How can an individual's personal development be graded?
- What type of evidence can a student collect to demonstrate reflection?
- How does the assessor identify the benefits of the reflective components of a person's work, and how can this be assessed with consistency or equity?
- Criteria for assessment are obscure and are usually a function of the marker's personal interpretation.
- Does the nature of what a student is prepared to write change once they know it will be assessed?

Arguments for assessment

- If reflection is highly esteemed in terms of professional development, we should be able to define criteria.
- As teachers tend naturally to use a reflective approach and inadvertently take the process for granted, defining assessment criteria would help the tutor take a step back and have a clearer insight into the student's learning processes.
- Practically, assessment may be necessary to ensure student participation.

The key evidence sought is that the learner can provide an account of an experience, recognise any emotional responses, and present the outcomes of reflection as new awareness, new questions or new understanding (Boud & Knights, 1996). In terms of the method of assessment, the provision of regular feedback and comment may be seen as most appropriate, and Moon highlights two successful strategies. In the first, a journal's completeness is seen as a necessary step to the progression to the next module, with a mark allocated to journals viewed as adequate, and those viewed as inadequate returned for further work. In the second (described by Jensen, 1987), students are informed that their semester course grade could be improved by up to a third if accompanied by a well-kept journal. Boud & Knights (1996) use the presentation of written reports of the outcomes of reflective activities (journal overviews, and self-assessment schedules) as tasks for assessment. If journals are to be graded directly, Moon warns that much greater sensitivity is required when making comments.

OTHER STRATEGIES THAT ENCOURAGE REFLECTION

(See also Moon, 1999b)

Learning Contracts


These are documents used to plan a learning project, negotiated between the learner and lecturer to outline that a particular activity will be undertaken to achieve specified learning outcomes. Their format usually includes consideration of the learning objectives of the project, the strategies and resources available, the evidence to be produced to prove achievement of the objectives, and criteria to be used for assessment (see Anderson *et al.* 1996 for a practical introduction and examples). Contracts are important prompts for reflection because they oblige the student to step-back and review their learning at various stages. The first stage occurs prior to submission of the initial draft contract where the student is required to reflect on past experiences to establish relevant learning needs and how these may be met. Second, at the negotiation stage, where the proposal is subject to challenge by the tutor, usually requiring a re-evaluation and revision of the document. And third, upon completion of the project when the student needs to review the outcomes of their learning and how they can be presented to another person.

Critical incident analysis

Critical incident analysis is a technique used in disciplines such as health-care where there is a strong interaction between academic work and practical experience (see Ghaye & Lillyman, 1997 for an introduction). Practitioners keep short records to document analyses of an experience or incident, which is then used to improve practice and apply scientific knowledge (the term critical incident can be misleading; it applies simply to any event that can be used as a learning experience, not a major 'emergency' type incident as initially implied). In practice this involves recording the incident and its analysis in a consistent format and usually limited to one side of A4. The format may involve a sequence of set questions, as illustrated in Box 3.

Box 3: Example of a Critical Incident Analysis Form.
From Lillyman & Evans, (1996) / Ghaye, T. & Lillyman, S. (1997):

Critical Incident Analysis

Description of the incident?	
By whom was it handled?	
What learning occurred?	
What were the outcomes of this incident?	
How has this incident affected your practice?	

The key point is that analysis focuses on 'un-picking' the event in order to understand the significance of the practitioner's responses in order to recognise and document progression in their professional competence. This technique differs from learning journals in that they are not used like diaries, but written at the discretion of the practitioner when a significant 'incident' or learning experience is deemed worth noting.

Action learning sets

Action learning sets involve a group of students (a set) working together for a period of time to look back over experiences, generate discussion of issues raised, place deliberate attention on the relationship between reflection and effective action, and to propose a way forward. The main difference between action learning sets and other forms of group discussion is that the focus is on the individual and their issues. McGill & Beaty (1995) describe how a set may operate with three students. After confidentiality has been agreed, the first student acts as a presenter to describe an issue or concern that they have regarding their learning. The second student acts as an enabler to help the presenter think through their 'problem' and specify steps that can be (rather than *ought* to be) taken to solve the problem. The third student has the role of observer, to listen and provide feedback on the effectiveness of the 'enablers' comments and action proposed. This process is rotated so that each student occupies each role.

Learning partners/critical friends

An effective method of encouraging reflection is to assign students a partner with whom they can exchange ideas and discuss general aspects of their learning (a good introduction to peer-assisted learning is Beardon, 1995). The partner is asked to comment deliberately on these ideas in order to deepen reflection. Boud & Knights (1996) point out that this strategy has important benefits for part-time students who have less opportunities to interact with their peers.

The two case studies that follow demonstrate how reflective practice can be incorporated into the curriculum and illustrate the benefits of the method as well as addressing how the problems acknowledged above are addressed. In both cases, adopting the reflective approach had led to definite improvements in the students' learning that has resulted in knock-on effects to the rest of their course. One of the underpinning principles of the Postgraduate Certificate in Learning & Teaching in Higher Education is that it is based on reflective practice and reflexive action.

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Approaches to Learning: Reflective Practice

INTERESTED IN FINDING OUT MORE?

A general note on further reading: In general, references that deal directly with reflective practice as an educational method cover a lot of background history and detailed theory on the different models developed. Many of these books are aimed primarily at trainee teachers or at professions where reflective practice is well-established as an approach to learning & teaching. Good recent overviews with a strong practical focus are Brockbank & McGill (1998) and Moon (1999a & b).

Practical issues: For introductions to practical aspects of designing frameworks to incorporate reflective practice into curricula, or for experiences of how the techniques operate, some of the best books are those from disciplines where reflective practice is well established (education, healthcare, and social work disciplines: of these Ghaye & Lillyman, 1997 and Goud & Taylor, 1996 are particularly useful). Moon (1999a) provides the best overview for learning journals.

Availability: Many of these publications were not held in the LRC's for Learning Development resource stocks at the time of going to press (those currently available are indicated). The rest are at present being obtained to be held for reference purposes in a Learning Development resource room at 2 Maryland Street. [Library Codes: IMM (I.M.Marsh); ALD (Aldham Roberts); AVR (Avril Roberts) LDR (Learning Development Resource room, 2 Maryland Street)]

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WORKSHOPWORKSHOPWORKSHOPWORKSHOPWORKSHOP

A one-day workshop 'Using portfolios, learning journals & diaries to improve learning' by Jenny Moon is organised for June 14th at Oxford Brookes University (Cost ca. £165). If you are interested in attending, visit the web-site of **The Oxford Centre for Staff & Learning Development** at www.brookes.ac.uk/services/ocsd

