

Recording and Reflecting on Workplace Experience: A CEBE Briefing Guide

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Context: Built Environment Perspective

There is evidence to suggest that certain aspects of the development of professionals are best learned in the workplace, rather than through more formal academic situations. Research suggests that learning in the workplace can be enhanced through the use of techniques that encourage reflection. This briefing guide outlines how educators can encourage meaningful and useful reflection by students during periods of workplace experience. A number of professional institutions responsible for the Built Environment subject areas provide systems that encourage students to reflect upon their work place learning, some using online recording tools. The Royal Institute of British Architects have created an online Professional Education and Development Record (PEDR) (RIBA, 2008), which is designed to record experience and to encourage a degree of reflection. Architecture graduates wishing to take the final professional examination in architecture are also required to produce a CV, a reflective professional experience evaluation and an evaluative case study related to a particular project. Students in other Built Environment disciplines can use the web-based RAPID system which allows students to evaluate their skills and competencies, and to amass evidence to support that (Maddocks and Wright, 2004).

In addition to these Built Environment specific systems academic institutions may provide electronic portfolio (or e-portfolio) systems that

can be tailored for any discipline. These portfolios may contain a variety of pieces of work and information which might represent evidence that some degree of learning has occurred. A portfolio is typically developed over time and hence can tell a story of an individual's development (Barrett, 2007). A portfolio however is more than just a collection of evidence, as it is commonly expected that some degree of reflection will be present in its contents (Butler, 2006; Rees, 2005).

This guide has been based on the findings of a JISC funded project into the use of E-Portfolios during periods of workplace experience. The project consisted of a literature review that looked at how high levels of reflection could be encouraged in students. Previous precedent comes mainly from the disciplines of nursing, teaching and management studies, where it is common for students to complete a reflective journal, diary or log as part of any work-based experience they undertake. The project also interviewed 21 students who were undertaking a period of workplace experience in architecture and construction management order to elicit the benefits of recording and reflecting upon experience, and to understand how these benefits might be maximised.

Why ask students to record and reflect upon their experiences?

There are two principal reasons to ask students to complete some form or record of their experience whilst undertaking a period of workplace experience. Firstly the record may be required to demonstrate that a certain set of competences have been met. For instance the RIBA's PEDR includes a log sheet where different student experiences, at different work stages can be recorded. In the case of this document, emphasis is placed on the number of hours spent by the student at each workstage. Other systems may ask the student to record more generic skills and competences achieved. Sometimes these might be used to showcase a student's experience to a future employer. (Zeichner and Wray, 2001)

The second reason to ask students to complete a record is to encourage them to reflect on their experiences. In itself this might be useful as it encourages students to become reflective practitioners – something that Schon (REF) argues is a key attribute of being professional. In addition reflecting upon workplace experience has benefits that:

- It can help students make the link between the theoretical work that they have carried out in academia and their professional practice.
- It can help students to contextualise their experience, and relate their immediate task to the project they are working on, or to their practice as a whole. It helps students to make sense of what they are doing.
- It can help to encourage students to recognise the significance of what they have learned in practice. Often this remains tacit, and students don't realise the extent of their learning until they reflect. This in turn can help to develop the student's confidence.
- It can help students to identify their strengths and weaknesses, and highlight gaps in their experience that need further development.

- Although it is recognised that significant learning commonly occurs during periods of workplace experience, reflection enables students to 'upgrade' that learning to higher levels (Moon, 1999)

Experience from other disciplines suggests that it is not sufficient for students to be given what amounts to a blank sheet of paper and ask them to write something reflective. Some students are more inclined to reflect on their experience than others, and so some form of guidance or structure needs to be provided. (LaBoskey, 1993)

Levels of reflection

Whilst there may be benefits in asking students to reflect upon their experience, how they reflect, and particularly the depth of their reflection is likely to impact upon the benefits for the student. At the lowest level, asking a student to reflect, may lead to something that is little more than a description of an event that might have happened. At the highest levels, students may attempt to relate, and question the activity as part of its wider social, political and ethical context, leading perhaps to new and emancipatory views of the world (Hatton and Smith, 1995; Van-Manen, 1977; Betts, 2004). As a result, a number of researchers have proposed taxonomies that describe the different levels of reflection that students typically achieve. One such taxonomy generated by Bain and colleagues (1999) describes 5 levels of reflection is provided in appendix I. This can be used as an assessment tool and to provide feedback to students on the quality of their reflection.

How can reflection be maximised?

In order to facilitate a level of reflection that goes beyond the level of basic description (reporting) it may be necessary to provide some form of support and structure to the student. The support provided can include guidelines and headings, and individual help and feedback to the student.

Choice of Recording System

1. The choice of an appropriate recording system is important. Many universities now have access to E-Portfolio systems which often form part of their wider Virtual Learning Environments. Alternatively it is possible to use an externally based system such as Pebblepad, or one of the more discipline orientated systems such as the RIBA's PEDR and RAPID. Ideally there should be a degree of flexibility in these systems to allow tutors to tailor the system to meet the needs of the students and their course, rather than relying on a standard institutional set up. Tutors may wish to create a series of pro-formas that students can complete to help them record and reflect in an appropriate manner.
2. Some recording systems permit the inclusion of graphics in the work that students create. There is little evidence to suggest that including graphics can enhance the level of reflection on a student's part, and in some cases weaker students will include examples of graphical work simply to demonstrate the quantity of work they have done. Nevertheless, in subjects such as Architecture, providing a clear, graphical layout is considered to be part of the professional culture. The inclusion of some graphic images interspaced within text can make text easier to read and can provide a point of reference. This may ease the burden on those asked to provide feedback to the student.
3. Many recording systems have quite poor facilities for allowing students to produce visually pleasing graphical layouts. If this is desired, it may be easier for students to create their reflective documents outside of a formal recording system, and then embed their documents, perhaps in PDF format.

Framework and Guidelines

It is important that students are clear as to why they are being asked to reflect on their experience and what areas that they are expected to record

or reflect upon. Are students expected to reflect upon the work they are doing, their personal and professional development or on the wider context of their offices and the profession/industry? Students also need to know whether they are expected to simply record (the quantity of) what they have done, or whether a deeper level of reflection is required.

The approach to recording and reflection can take a variety of forms. For instance students might:

1. Write in turn about each project that they have worked on during a period of experience. This often leads to a series of descriptions of what the student has done. It can also lead the students feeling that they need to write something about every project they have been involved in and ignore contextual issues that are not directly related to their projects.
2. Focus on their overall experience over a period of time. This may provide more reflective writing that allows students to relate their experiences over a series of projects. This may be done using a diary or blog (web-log). An alternative method might be to use some graphical format such as a mind map (Buzan, 1995) which allows them to make connections between experiences.
3. Focus on particular (critical) incidents that they have encountered, for instance a particular problem or challenge that they have had to address. This allows the students to ask themselves a series of probing questions about how they dealt with that incident, and what they might do differently in the future. This is seen as a particularly effective way to raise levels of reflection (Griffin, 2003) although many students do however find it difficult to identify a suitable incident (Cox, 2005)
4. Focus on how they might have developed in terms of a particular professional competence. Students are provided with a list of competences that they are expected to

Tutors need to decide whether one of these is more appropriate, or whether students should have the flexibility to choose their own approach.

Providing students with a series of prompts can help them to reflect upon a particular experience, to relate experiences or to consider incidents that they may have witnessed but not directly participated in. Prompts might ask students about:

- What they regarded as challenging and why?
- Their feelings, beliefs and assumptions and how these might have changed
- The relationship between their experience and their initial expectations of practice
- Their roles and relationships to those of their colleagues
- How they addressed the challenges encountered
- The support and feedback they had and needed
- What could be done better next time

A five stage model which can also be used to derive prompts for reflection was developed by Johns (1994). This model was written primarily to assist with guided supervision in nursing, but has been revised by Cox (2005) to cover more generic issues. A copy of this is included in appendix 3.

A further question arises about how frequently students should record their experience.

Students often find it helpful to make paper-based notes while they work, and then at a specified period of time (for instance every few months), use this information to compile a more formal reflection using the provided framework. This helps them to contextualise, make sense of their experience and recognise the relative importance of different pieces of work.

Support and Feedback

In addition to providing prompts for reflection, intervention by other individuals may be necessary to steer the direction of thought, or to ensure that misconceptions do not occur.

1. Students engaging in workplace experience may not have the necessary skills to be able to reflect at a sufficiently high level. It may be helpful to engage students in reflective activities before they commence their periods of workplace experience. Walker (1985) provides a set of guidelines, based upon his own experience which can be of assistance when introducing reflection to novice students.
2. It is useful to provide feedback to students on the level of reflection that they achieve. Research suggests that students find this more useful than providing general advice to the students on their experience (Bain et al., 2002). Feedback should be provided at timely intervals during a period of experience, so that students can act on that experience.
3. If students perceive reflective work is as an assessed task, then they may be less inclined to provide personal, deep reflection (Walker, 1985). Nevertheless, the recognition that work will be assessed may encourage students to engage in the process of reflection (Biggs, 2003).
4. Self and Peer and assessment of reflective work can be a useful means to encourage higher levels of reflection as it helps students to recognise what might be regarded as high or low levels. In order for this to work,

students need guidelines on how to assess work in terms of levels of reflection. Appendix 4 contains an pro-forma developed by Samuels and Betts (2007) that is designed to help students self assess their work.

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Appendix I: Five-point level of reflection scale

From Bain, J. D., Ballantyne, R., Packer, J. & Mills, C. (1999) Using Journal Writing to Enhance Student Teachers' Reflectivity During Field Experience Placements. *Teachers and Teaching*, 5 (1), 51 - 73.

Level 1 (reporting)	<ul style="list-style-type: none"> ▪ The student describes, reports or re-tells with minimal transformation, no added observations or insights
Level 2 (responding)	<ul style="list-style-type: none"> ▪ The student uses the source data in some way, but with little transformation or conceptualisation ▪ The student makes an observation or judgement without making any further inferences or detailing the reasons for the judgement. ▪ The student asks a 'rhetorical' question without attempting to answer it or consider alternatives ▪ The student reports a feeling such as relief, anxiety, happiness, etc...
Level 3 (relating)	<ul style="list-style-type: none"> ▪ The student identifies aspects of the data which have personal meaning or which connect with their current experience ▪ The student seeks a superficial understanding of relationships ▪ The student identifies something they are good at, something that they need to improve, a mistake they have made or an area in which they have learned from their practical experience ▪ The student gives a superficial explanation of the reason why something has happened or identifies something they plan to do or change
Level 4 (reasoning)	<ul style="list-style-type: none"> ▪ The student integrates the data into an appropriate relationship, e.g. with theoretical concepts, personal experience, involving a high level of transformation and conceptualisation ▪ The student seeks a deep understanding of why something has happened ▪ The student explores or analyses a concept, event or experience, asks questions and looks for answers, considers alternatives, speculates or hypothesises about why something is happening ▪ The student attempts to explain their own or others' behaviour or feelings using their own insight, inferences, experiences or previous learning, with some depth of understanding ▪ The student explores the relationship between theory and practice in some depth
Level 5 (reconstructing)	<ul style="list-style-type: none"> ▪ The student displays a high level of abstract thinking to generalise and/or apply learning ▪ The student draws an original conclusion from their reflections, generalises from their experience, extracts from general principles, formulates a personal theory of teaching or takes a position on an issue ▪ The student extracts and internalises the personal significance of their learning and/or plans their own further learning on the basis of their reflections

Appendix 2 – Typology of what typically is learned during periods of workplace experience

Based on a typology developed by Eraut et al (2004)

- 1) **Task Performance**, which includes speed and fluency and the development of the appropriate skills and know-how. This might also include knowing where to find help and being able to communicate with those able to give help.
- 2) **Awareness and Understanding**, of your workplace contexts, your colleagues and other people you have to work with
- 3) **Personal Development**, which might include, managing oneself becoming self critical, building relationships and handling emotions,
- 4) **Teamwork**, including working with others, joint planning and problem solving, engaging in mutual learning.
- 5) **Role Performance**, which is learning how to perform your particular role, and might include leadership, prioritisation, crisis management, and range of responsibility
- 6) **Academic Knowledge and skills**, such as the use of evidence and argument, theoretical thinking and learning how to use theories in practical situations
- 7) **Decision making and Problem Solving**, including knowing when to seek expert help, dealing with complexity, solving problems in groups, generating, formulating and evaluating options and making decisions under pressurised conditions.
- 8) **Judgement** of priorities, quality of performance, levels of risk and value issues

Appendix 3 – Figure 1 Cox’s version of Johns’ model of structured reflection

From Cox, E. (2005) Adult learners learning from experience: using a reflective practice model to support workbased learning. *Reflective Practice*, 6, p 464)

1. Description of Experience
 - 1.1. Phenomenon
Describe the here and now experience
2. Reflection
 - 2.1. What was I trying to achieve
 - 2.2. Why did I intervene/react as I did?
 - 2.3. What were the consequences of my actions for myself, my clients, the people I work with
 - 2.4. How did I feel about the experience when it was happening
 - 2.5. How did the other person/people feel?
 - 2.6. How do I know how the other person/people felt
3. Influencing Factors
 - 3.1. What internal factors influenced my reactions
 - 3.2. What external factors influenced my reactions
 - 3.3. What sources of knowledge did/should have influenced my reactions
4. Learning
 - 4.1. What other choices did I have
 - 4.2. What would be the consequences of these choices
 - 4.3. How do I feel about my experiences now
 - 4.4. How have I made sense of this experience in the light of past experience and future practice
 - 4.5. How has this experience changed my ways of knowing
 - Practically (How have your skills or contextual knowledge been affected?)
 - Aesthetically (How has your understanding of appropriate response been modified)
 - Ethically (Has there been any internal conflict/negotiations with your values?)
 - Personally (Has your self awareness, self esteem been altered?)

Appendix 4 –Self Assessment Schedule

From: Samuels, M. & Betts, J. (2007) Crossing the threshold from description to deconstruction and reconstruction: using self-assessment to deepen reflection. *Reflective Practice*, 8, 269-283.

Self assessment of professional development journal entries	
<p>I am reflecting on an experience?</p> <ul style="list-style-type: none"> ▪ Did I notice/register what happened? ▪ Did I record how I felt and how I responded? ▪ Did I pay attention to something significant that happened? ▪ Did I value my experience and my response as worth reflecting on and learning from? 	
<p>I am reflecting on ideas and concepts that I have read or heard about or thought of myself?</p> <ul style="list-style-type: none"> ▪ Am I making sense of the ideas by linking them to past experience or learning and to other concepts? ▪ Am I questioning ideas and concepts, testing them against experience and other opinions? ▪ Am I challenging my assumptions and my judgements? ▪ Am I prepared to think about ideas in a new way? 	
<ul style="list-style-type: none"> ▪ Am I planning ways to try out new ideas in practice? ▪ Am I working out, thinking through action plans 	
<ul style="list-style-type: none"> ▪ Have I experimented with new ideas and ways of doing things? ▪ Am I consciously learning from my experiments? 	
<p>What have I discovered by self-assessing my journal entry and what do I want to do about this?</p>	