

DEVELOPING REFLECTION AND SELF-REVIEW IN PART-TIME BUILDING STUDENTS

Introduction

The decision to include Experiential Learning modules into part-time undergraduate degree awards was partly prompted by employers' requirements of vocational education when the modular programme was devised. At the same time, academic staff realised there was an opportunity to develop a learning approach that links the acquisition of knowledge and skills gained in employment to the concepts studied at university more effectively. Practice can therefore be intertwined with theory. Currently, the module is being offered as part of the final stage of the part-time degree awards in Construction Management, Building Services Engineering, and Civil Engineering. The mode of attendance on these programmes is one day a week, with a one hour period allocated to each programme for this module.

The aim of this case study is to share thoughts and experiences of operating such a module, and in particular, the approach that is being used to develop reflective learning. Over a 5 year period the teaching and learning approach has been modified to take account of student difficulties in this challenging module.

The problem

The academic challenge is to encourage students to become reflective practitioners, who are also capable of self-review. Central to the module is learning how to critically examine workplace experiences and to challenge accepted conventions with a view to clarifying their own thinking. Critical thinking means developing an awareness of the many assumptions and practices that we use everyday (Brookfield, 1987).

Reflective learning is not new. Kolb (1984) identified reflection as playing a major part in experiential learning. Schon (1983) argues that reflection is necessary for practitioners to improve their professional judgement and understanding of new situations. However, from experience as a tutor, it is not always easy to convince students that looking back and reflecting is a valuable part of their education.

Student activity

The activity that students undertake is an investigation into decision making in their own workplace. The brief is to provide a reflective report of approximately 3500 words which explains and critically assesses one work situation that includes a review of self and task-orientated skills. The situation must relate to a complex or unpredictable work incident normally involving contemporary management and/or technical issues. Students are required to critically review the quality of the decisions and actions that have taken place, to analyse the thinking behind the decisions, and to relate these to the skills and knowledge involved. Finally, the students make conclusions and

recommendations on how the quality of practice and their skills can be enhanced for the future.

Examples of situations investigated include designing an office air conditioning system, planning site production activities, restoring a period dwelling, and implementing change to management procedures. Examples of skills, with descriptions, provided in the module guide include initiative, analytical ability, persistence, creativity, planning, negotiating, communication, and leadership.

The report forms the second half of the assessment towards a 20 credit module. The assignment is considered suitable for students who are either engaged in decision making or observing the decisions being implemented.

Teaching and learning strategy

Fundamental to the module is a deep learning approach, the aim of which is to enable students to gain a thorough understanding. Reflection is considered one of the strategies for encouraging a deep approach and improving the quality of student learning (Gibbs, 1992). Gibbs refers to the work undertaken by Biggs (1989) who identified four key elements to a deep learning approach. To some extent, these elements are applied in the module, as follows:

1. Motivational context. The assignment focuses on decision making skills which are highly relevant to employment needs.
2. Learning activity. The investigation involves the student undertaking active and independent learning; the nature of the module is self-directed and self paced. Students enter into a type of negotiated learning contract, setting their own learning outcomes within a framework of module outcomes.
3. Interaction with others. Students can interview others involved in the situation. Adopting a work based mentor, encouraged by the module, also provides an opportunity to discuss the investigation with someone in the same workplace.
4. A well structured knowledge base. The students are able to build upon their existing knowledge and work-based experience.

The first teaching session commences with a group briefing that concentrates on the aims of the assignment, the perceived benefits to the students, and the requirements of the investigation. It is important to explain to students the thinking behind the teaching strategy, that there is an expectation for them to develop a deep understanding using a critical thinking approach which can help them adapt to future work situations, particularly where novel situations arise. Mature final year students seem to appreciate this insight into their learning and view this as an exercise that is helping to develop their way of thinking. In addition, raising self-critical awareness with regard to skills and knowledge may help to address recommendation 20 of the Dearing Report (1997), for each student to have “a means by which students can monitor, build and reflect upon their personal development”(p.141).

Following the briefing, all subsequent student contact is by individual supervisions, normally on a request basis to discuss the report synopsis, progress and draft report sections. E-mail is used extensively to send draft sections for formative assessment, prior to the supervision. From experience, these supervisions draw heavily upon the guidance of the tutor to provide further stimulus and clarification if the students' experience is to be fully exploited.

Initially, when the module started there was a teaching challenge to raise the performance of students in reflection and critical analysis to the standard expected. The module now has, in addition to a module guide, a guidance note booklet to reinforce the briefing and supervision sessions. Provided in the guidance notes is an analytical framework and a set of questions that students are encouraged to use during the investigation. The intention is to provide an aid that will act as a prompt to stimulate the students' imagination without being too prescriptive.

Developing the reflective report

Students start the assignment by thinking back over the previous 12 months to identify a situation where complications existed and which involved self and task orientated skills. The situation may have been problematic or one where the outcome gave personal satisfaction. It is considered just as important to critically assess a situation where the outcome has been successful and to find out why, as it is to reflect on an incident where poor decisions were made. Content in these investigations often include some of the following:

- conflict; risk assessment; cost and time implications; design, production and maintenance
- complications; complex assembly detailing and buildability; health and safety issues; legal matters; environmental concerns.

The next step for students is to produce a 400 word synopsis outlining the aims, content and methodology of their investigation. A statement of their proposed learning outcomes, information sources they intend using (including those to be interviewed), and a possible report structure is to be included. The synopsis is submitted for summative assessment, discussion and revision where applicable, prior to commencement of the report. Work based mentors are also encouraged to provide support and hold discussions with students at this time.

Developing the report is similar to the reflective process proposed by Boud et al (1985). They suggest three important elements, returning to experience, attending to feelings and finally, re-evaluating the experience. The point is made that this is not a stage by stage process but one that is likely to overlap and be cyclical. An early section of the report therefore requires an accurate description of the situation and the events that occurred, clearly indicating those complexities and the skills involved. As Boud indicates, this helps to ensure that reflection is based on the actual events that were experienced. Throughout the assignment students are reminded to maintain an open mind, not to be prejudicial and to provide an honest reflection. There is a temptation

for some students to merely justify their decisions at the expense of being critical.

Before evaluating the decision making, students are first required to explore the views of others. The intention is to enrich and broaden their experience. There is a need to link concepts new to the student with their existing knowledge if preconceived ideas are to be challenged (Boud et al, 1985). An important part of the report is therefore to include a literature review to establish whether there are underlying principles, theories or alternative ideas that are relevant to the situation under investigation. Some students focus their literature review on the main skill element, for example, one student's investigation involved researching the key features of 'good' negotiation skills. There is then the opportunity in the critical assessment section of the report to debate why there may be differences between theory and what happened in practice.

The aim of the critical assessment section of the report is to make judgements on the decision making and the key skills used. To assist students, guidance on the techniques of critical questioning and criteria analysis are provided. Brookfield (1987) considers these techniques are an effective means to elicit and test the underlying thinking. Assumptions, compromises and any risks that were taken can be scrutinised; students are therefore required to use their imagination when developing searching questions. To judge success using criteria analysis, Brookfield warns that this can be subjective; students are therefore required to be objective and use performance indicators where possible. Examples of criteria used have included an assessment on whether quality standards, cost and time limits, environmental standards, or health and safety provisions were satisfied.

Finally, in the report a conclusion and recommendations are made based on the main lessons that have been learnt from the investigation, whether there are skill gaps and whether the decision making should have been different. Students are asked to consider the requirements for being competent in the assessed skills. Students are also encouraged to generate ideas to improve practice and discuss the implications of their proposals with work colleagues.

Before submitting the report to the university, work based mentors are requested to grade the assignment on a pass/fail basis and confirm its authenticity. To date there have not been any substantial differences of opinion between the supervision being provided by a work-based mentor and the academic tutor. Summative assessment of the final report, using assessment criteria, involves double marking by university tutors to ensure fairness and consistency. An example of a draft report structure is included in the appendix.

Evaluation

The evaluation was based on opinions from students, the university tutor and work based mentors. Most of the comments below are results of interviews with students undertaken by an educational advisor, independent of the module tutor.

Some students have seen this decision analysis assignment as a valuable opportunity to review their own, and their employers', approaches and practices. Students considered the module had assisted them to become more aware and to challenge routine practices for the first time. Engaging in this process highlighted the fact that it is easy to be unaware of the underlying reasons for the decisions one makes. Several students mentioned the feeling of producing something of value, not only for themselves but also for their employer. In several cases management had expressed enthusiasm about viewing the final report and using the findings to initiate staff development within the organisation. Those who value the module see this as a challenge to their powers of thinking. Some students considered it had improved skills and would enable them to present a better developed argument when communicating ideas and options to other professionals. However, for some students the level of their employment had made it difficult to identify a significant decision making situation to analyse, consequently they considered they were at a disadvantage.

There are those that value the flexibility and self-directed nature of the module since it gives more control over their time. However, others have said they prefer a more formal classroom process to their studies; this response may partly be due to the pressures of employment and demands to work substantial hours.

In general, students have found a work-based mentor to be useful in enabling discussion on practical and theoretical issues to be inter-linked and clarified. Conversely, several students mentioned difficulties with finding willing mentors and/or support for their educational pursuits within their organisation. Without exception in this last academic year, all students were able to successfully approach someone in industry to act as a mentor. Advice on selecting a mentor is provided in the module guide. To date the feedback evaluation questionnaire from work based mentors has overwhelmingly been in favour of the module.

It was thought the literature review helped to broaden students' knowledge of up to date information and could be used to test decisions against current thinking. In contrast, some said they had experienced difficulty finding relevant literature. Some students also felt daunted by the quantity of work required in this Experiential Learning module, in particular by those who were also undertaking a Dissertation module within the same academic year.

Conclusion

The Experiential Learning module is considered to be valuable by those students who view themselves as independent learners, stretching their powers of thinking and reflection, and making them capable of taking control over their own studies. The quality of reports produced by students indicates the teaching and learning strategy can be effective. Other students who view the module less favourably seem to prefer a more passive approach to their learning, one that is more dependent upon the tutor. Experiential modules can also provide good preparation for other independent project type

modules, for example Dissertation, providing these take place in the following academic year.

References

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Appendix – Draft Report Structure

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