

## Research Student Supervision: Developing Reflective Practice in Higher Education

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**Abstract:** Reflection is a useful technique for aiding and reinforcing learning. It is a valuable tool in professional development and range of educational situations. Through exercising judgement and critical evaluation of personal progress the reflection process can internalise skills and criteria involved in supervision practice. Though there are diverse types of reflection activities which may be appropriate at different stages, however, reflection on personal experience is more systematic reflection. It incorporates systematic objectives to reach comprehensive understanding. It is considered a higher order reflection, which may be on several events or on the results of reflection that has already occurred, and could be seen as reflection-on-action that goes well beyond the event.

**Keywords:** Research Supervision, Reflective Practice, Higher Education

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### 1 Introduction

In 1933, Jon Dewey documented that reflective practice can only be initiated after a problem has been identified and that one must accept the uncertainty that this generates. Later in 1983, Schon classified knowledge into two types: technical rationality and professional artistry. Technical rationality is scientific knowledge that has been generated by research, and is often referred to as 'facts'. In contrast, professional artistry is intuitive knowledge derived from individual experience, and is referred to as 'knowing how'. Both types of knowledge are required in reflective practice. Professional artistry is developed through the use of critical reflection.

Reflection is a path towards desirable and effective practice, undertaken in a meaningful and practical way. Its purpose is to allow the possibility of learning through experience, whether that is the experience of a meeting, a project, a disaster, a success, a relationship, or any other internal or external event, before, during or after it has occurred. Reflective practice is simply creating a habit, structure, or routine around examining experience. A practice for reflection can vary in terms of how often, how much, and why reflection gets done. A person could reflect very frequently, bringing a high level of awareness to his/her thoughts and actions, but rarely stopping to look across what s/he has noticed to consider what could be learned by exploring his/her patterns of thinking across different situations (Amulya, 2004).

There are many diverse ways that reflective practice can be structured (Dewey, 1933; Schön, 1987; Amulya, 2004), nevertheless in 1978 Carper introduced a model for structured reflection which has been further modified in 1994 by Johns, who developed a series of questions to guide the reflective process in practising professionals (appendix 1). Johns suggested that the process of using guided reflection needs to be supervised, preferably by the practitioner's line manager. He recommends that the reflection is written in a 'reflective diary', with one side of the page consisting of the descriptive material (with actual dialogue where possible) and the other side consisting of the reflection and exploration. Reflection can be practiced at different frequencies: every day, at long intervals of months or years, and everything in between. Reflection can also vary in depth - from simply noticing present experience to deep examination of past events - as well as in the numerous purposes it can serve, such as examining patterns of thinking, documenting learning, realigning daily activity with deeper values, developing shared thinking, and many other objectives (Table 1).

**Table 1** Some of the ways in which reflective practice has been applied in the professions

Ways in Reflective Practice	Definition	Involve
<b>Reflective practice as a set of abilities and skills</b> (Claderhead and Gates, 1993)	Reflective teaching; is a list of abilities set in the context of appreciating the political context of teaching and gaining empowerment	Teacher's abilities to discuss their own practice, appraise ethical and moral issues in teaching, take greater responsibility for their own development and develop personal theories of educational practice
<b>Reflective practice and criticality</b> (Proctor, 1994)	Reflective practice is the process of looking back in a critical way at what has occurred and using the results of this process, together with professional knowledge (with technical and ethical aspects), to tackle new situations	Critical view of the content of an action, or of the self or of the context of the professional or profession. Particular issues in teaching will be tackled with continuous evaluation in the process of reflection
<b>Reflective practice as a state of mind</b> (Jaworski, 1993)	Reflective practice is a gentle process of noticing and being concerned.	Noticing aspects of teachers own practice, perhaps triggered by some form of surprise, or by some question from an external observer Reinforcement of thinking by its articulation for more knowledgeable position, for future decision making and professional action
<b>Reflective practice as an orientation to problem solving</b> (Copeland, Birmingham and Lewin, 1993)	Reflective practice is a conscious process of identifying problematic issues in their practice and pursuing solutions that bring about valued effects on student learning	Or the seeking of understanding (Grimmett, 1988; Russell and Munby, 1992)

In many cases, the individual takes a turn recounting a key event and getting feedback on analysing it, naming assumptions, making connections, and formulating critical questions that emerge. The kinds of questions that emerge from reflection aimed at individual experience tend to relate to the development of practitioner thinking.

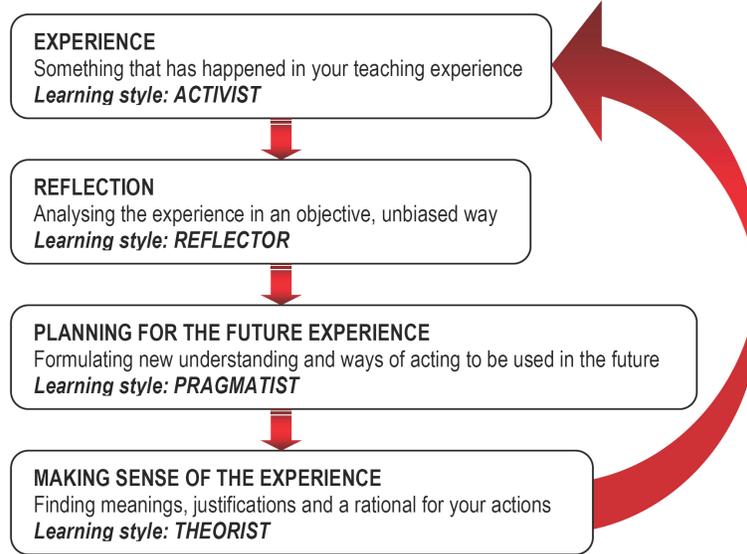
It worth mentioning that individual reflective practice needs to make sense out of a week's worth of meetings, frustrations, and turning points in order to decide how to proceed with a project? For instance, when supervising research student, the supervisor might explores key issues that are connected to the decision s/he needs to make.

Some academics welcome reflection as a means of extending themselves intellectually, examining their own ideologies and enhancing their professional role (Wildman and Niles 1987; Calderhead and Gates, 1993).

In 1986, Morrison highlighted that lack of consistent definition with regards; if the notion of reflective practice is important in professional life, it is correspondingly important that students and practising professionals understand what it is they are attempting to achieve (Morrison, 1996).

## 2 Reflective Practice and Profession Development

In academia, reflective practice is essential for profession development, as it enables learning from experience. Not merely, reflective practice allows practitioner to view problematic situations and translate them into potential learning opportunities but it also permits expertise development through practice. While supervising research students, one must move beyond collecting, processing and reviewing data and infor-



**Figure 1** Learning cycle with associated learning styles

mation, and ask several important questions. Why is it happening? What is the implication? What does one do next? Figure 1 illustrates the learning cycle process.

The following section provides an account on the essential components required when supervising research students and practicing critical reflection. This involves interpreting personal experience, self assessment, problem-based learning, potential development plans to create new insights and then arriving at an agreement about the necessary action(s).

### 2.1 Self Assessment

Self assessment permits judgement about the quality of work in relation to established criteria. It is focused mainly on interpretation of practice. Use of the self-assessment approach encourages qualitative comments about the individual's work.

### 2.2 Problem-Based Learning

Problem-based learning engages the individual in real problems that require the selection, analysis and application of information and theories to solve or manage a situation effectively. Problem-based learning encourages critical thinking and develops reflective capacities.

### 2.3 Personal Development Plan

A personal development plan provides structure for the consideration and planning of development. It may be seen as a mechanism by which learning and reflection can be demonstrated, and provides an overall picture of an individual's capabilities. A portfolio is a useful way of getting a scientist used to writing reflectively and providing evidence for their reflection and encourages thinking of what they know, what they do not know and how they might develop skills to bridge the gap.

### 2.4 Reflection: The Process

Reflection is a process of self-development, of becoming the kind of practitioner one would wish to be. It is necessary to evaluate and reflect in order to learn from situations, and then to apply such learning flexibly to new experiences. To practise well requires a strong sense of vision, good judgement, the ability to grasp and interpret an unfolding situation, and a skilful, appropriate and effective response. Table 2 summarises

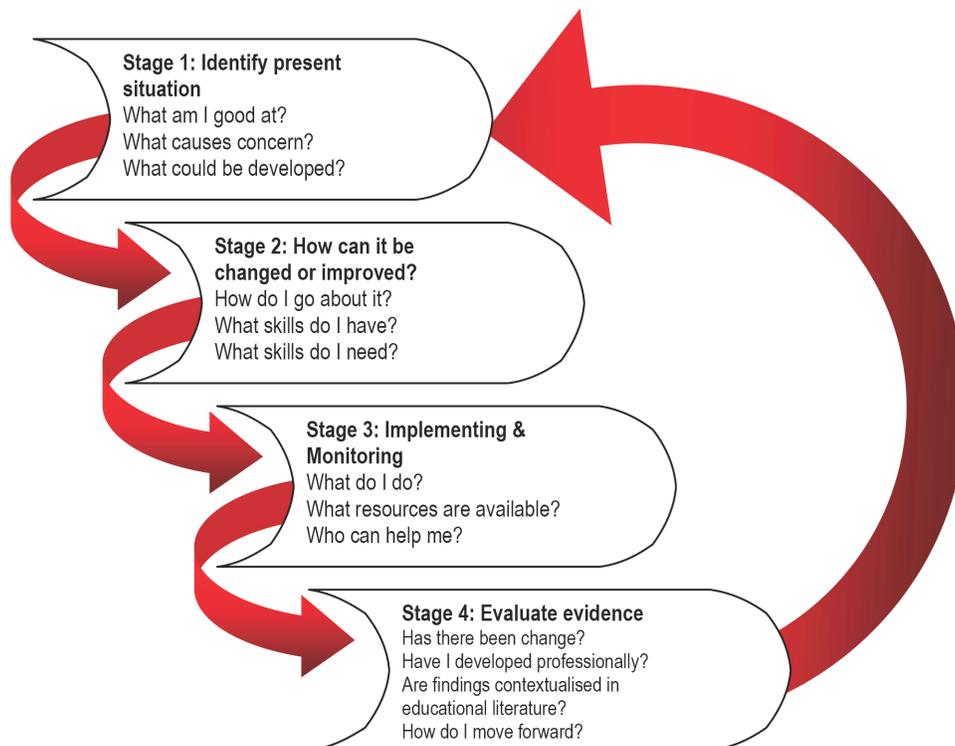
**Table 2 The 10 Cs for an effective reflective practitioner**

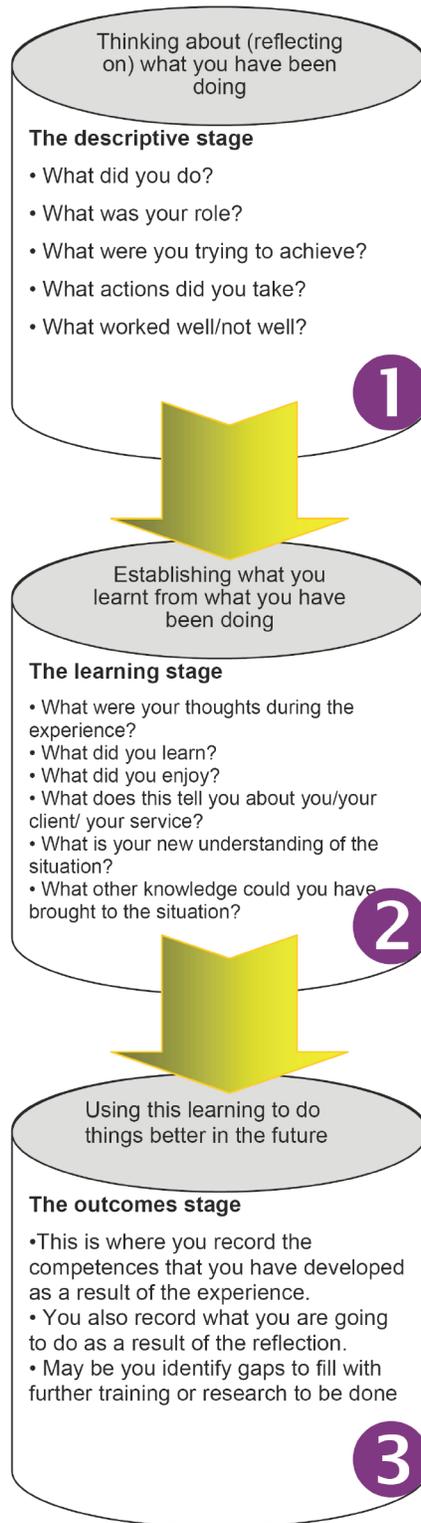
<b>Commitment</b>	Accept responsibility and be willing to challenge normal responses to a range to situations
<b>Contradiction</b>	Expose and understand the contradiction between desirable practice and actual practice
<b>Conflict</b>	Harness the energy of conflict in contradiction to become empowered to take appropriate action
<b>Challenge and support</b>	Confront the practitioner's normative attitude, beliefs and actions in ways that are not threatening
<b>Catharsis</b>	Work through negative feelings
<b>Creation</b>	Understand new ways of viewing and responding to practice
<b>Connection</b>	Connect new insight with the real word of practice
<b>Caring</b>	Realise desirable practice as an everyday reality
<b>Congruence</b>	Reflection as a mirror for caring
<b>Construction</b>	Weave personal knowledge with relevant theory

the 10 Cs for an effective reflective practitioner. Figure 2 demonstrates the six stage process which will help me to structure and gain most benefit from my reflective analysis.

The following figures (fig. 2 and fig. 3) are two examples that can assist you when reflecting on your professional practice.

By using the stages in figure 2, you can generate a series of questions which help structure the process of reflection to maximise the potential or actual changes in behaviour. Figure 3 is a simpler as it involves a three stage cycle to structure a reflective practice. Nonetheless, in order for reflection on practice to count,

**Figure 2 A six stage process to structure a reflective practice**



**Figure 3** A three stage process to structure a reflective practice (adapted from [www.nutritionociety.org](http://www.nutritionociety.org))

you need to record it. This way the value of the learning experience and the fact that learning has taken place is written down and can be verified and shared by others.

To help focus your thinking and efforts effectively, conduct your reflection on manageable and discreet parts (e.g. a project, seminar or individual consultation) of your professional practice. However, individual should consider and be aware of the advantages and disadvantages of reflective practice (table 3).

Reflective practice is associated with different stages of professional development, therefore in theoretical terms, there appears to be no one form of practice that can be called reflective practice, but there are many different ways of regarding it. There is not consistency within or across professions. There is a general sense that reflective practice is good, but the identity of the main beneficiary is not clear – the professional or their students?

By engaging in collective dialogue about a story or a question, we build our understanding of it and locate the significance of that story or question in the larger context of our work. Even when there is not a clear problem or question driving reflection, it is through the exploration of stories and the practice of dialogue that we can unpack the richness of experience and evaluate which issues emerging from that experience we need to pursue. In deeper forms of reflection, it becomes possible to identify learning edges, those questions or issues that an individual or group is seeking to understand in order to advance their work.

Good lecturers are by definition reflective practitioners – they are relentless about striving for improvement in their practice, they challenge and question themselves, they look for new and improved ways of working so that all of their learners are enabled to make the best possible progress.

If you are a qualified lecturer you should be well established in this reflective culture, you know that in order to continue to improve and learn more about effective teaching, you need to make time and space to think carefully about what you are doing in your sessions and for the organisation as a whole. By reflecting and constructively analysing in this way you will find new and better ways of teaching and you will develop your professional competence across an increasingly broader range of knowledge, skills and expertise.

At the same time no one needs to tell you that teaching and delivering courses anywhere in the learning and skills sector is an involving yet time consuming process. The organisations where you work are complex places where time for analysis and reflection is at a premium. But it is precisely because of this complexity, the pace of life and the scale of change and development in the sector that every lecturer needs to be given both the time and tools to think about their own individual part in the educational enterprise.

### 3 Conclusion

Reflection is a process of deriving learning from experience, self-development and becoming the kind of supervisor one would wish to be. It is necessary to evaluate and reflect in order to learn from situations, and then to apply such learning flexibly to new experiences. Now we can become more purposeful-not just about our learning but about how to work in more creative and sustaining ways. However, to encourage re-

**Table 3 The advantages and disadvantages of reflective practice**

Advantages	Disadvantages
■ It makes you a more confident and competent practitioner	■ People can become more introspective and anxious about their actions
■ It makes you more sensitive and guides choices for further learning	■ It can be time consuming
■ It makes you uncover new information and improves practice	■ A national framework or profile can limit rather than allow freedom
■ It makes you facilitate action that has broad ownership	■ Need to adhere to ground rules
■ It makes you learn from the experience of others	■ Lack of experience can affect reflective practice

flective practice one must avoid a blame culture, seek staff opinions, provide constructive feedback, review incidents with staff, and teach practical implications and key concepts.

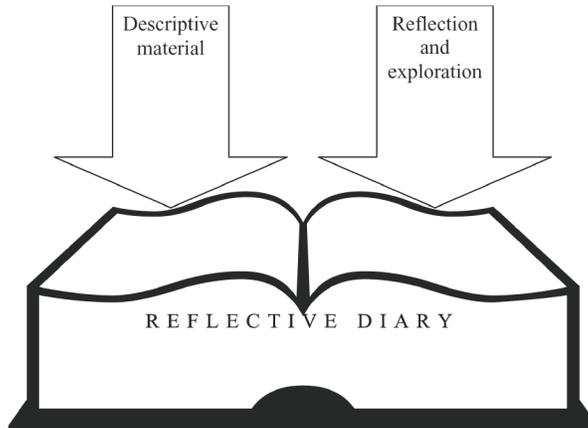
For many practitioners, doing swallows up learning. Even staying aware of what we are doing does not itself create learning. Learning is a purposeful activity, although not a complicated one. Recognising the necessary role of reflection in excavating learning from experience and becoming familiar with the basic elements of a reflective practice will allow practitioners to begin to act on the notion that knowledge is embedded in the experience of their work, and to realize the importance of this knowledge in furthering their practice.

Finally, the engagement in collective dialogue about the research supervision can significantly assisted you to build your student and supervisor relationship as well as helped achieving the research project successfully.

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**Appendix 1 John's model for structured reflection (1994)**



*Core question - What information do I need to access in order to learn through this experience?*

**Cue questions -**

**1. Description of experience**

- 1.1. *Phenomenon* - describe the here and now experience
- 1.2. *Causal* - What essential factors contributed to this experience?
- 1.3. *Context* - What are the significant background factors to the experience?
- 1.4. *Clarifying* - What are the key processes for reflection in this experience?

**2. Reflection**

- 2.1. What were you trying to achieve?
- 2.2. Why did you intervene as you did?
- 2.3. What were the consequences of your actions for:
  - Yourself?
  - The patient / family?
  - The people you work with?
- 2.4. How did you feel about this experience when it was happening?
- 2.5. How did the patient feel about it?
- 2.6. How did you know how the patient was feeling about it?

**3. Influencing factors**

- 3.1. What internal factors influenced your decision making?
- 3.2. What external factors influenced your decision making?
- 3.3. What sources of knowledge should have / did influence your decision making?

**4. Could you have dealt better with the situation?**

- 4.1. What other choices did you have?
- 4.2. What would the consequences of these choices have been?

**5. Learning**

- 5.1. How do you now feel about this experience?
- 5.2. How have you made sense of this experience in light of past experiences and future practice?
- 5.3. How has this experience changed your ways of knowing:-
  - empirics?
  - aesthetics?
  - ethics?
  - personal?