

Critical Thinking and Reflective Learning

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Resources

Critical thinking: (2008) 'Critical Thinking, an exploration of theory and practice' or at <http://ESCalate.ac.uk/2041>; and www.CEMP.ac.uk/People/jennymoon/criticalthinking

Critical Thinking

1. Introduction

a) **What is critical thinking?** What do you think it is?

b) **An overview of the process as I see it**

A person who undergoes good critical thinking -

- is involved in sustained deep thinking that involves analysis and / or comparison of situations/issues,
- challenges assumptions,
- will question, and will evaluate evidence or ideas fairly,
- is willing to listen to others,
- can argue a point but is open-minded and willing to change opinion,
- recognises the breadth and context of the issue and argues within a specified context,
- recognises the possibility that different people can see the same idea in different ways because of their different prior experiences,
- recognises that there can be multiple perspectives on an issue -
- and therefore does not necessarily seek absolute responses (ie not black or white; right or wrong; positive or negative answers or responses),
- is critical of her own processes of thinking (checking for her own assumptions, for example),
- is aware of the effects of emotion on the processes of thinking and can reasonably well manage her own emotions in the processes of critical thinking,
- can articulately and appropriately represent her thinking in speech or writing.

2. An example of thinking critically

Sonja's thoughts about the interview for the receptionist post

Sonja's diary entry for Thursday (superficial and not critical thinking)

'We interviewed five candidates for the medical reception post last week. I was on the panel but I was only invited on at the last moment even though I am actually doing the work myself. The job involves a variety of activities so it requires someone with a great deal of experience in medical reception work. It is probably more demanding than most reception jobs and I would say that not one of the candidates was good enough for the post. I was further upset then, that the others in the panel (none of whom are receptionists), selected a young man whom I thought to be particularly unsuited. They said that he had a good attitude to people and 'potential'; that he was sociable and had some medical knowledge. I saw none of those qualities. The others in the office are all female and they will not like having a man there for a start – and a young man at that. He could not possibly have had experience of dealing with people in the manner that is required in reception and medical knowledge is nothing to do with the job as we do it. They have made wrong choice.

Sonja's diary entry for Tuesday (deeper critical thinking)

I have been thinking about my reactions to the interviews last week and the choice of a candidate of whom I strongly disapproved at the time. While I still have doubts about the chosen candidate, I realise that there were good reasons for the choice. I was cross when I wrote that entry in my diary because I thought that, because I do the job, I would be the most influential person in the panel. Having talked this over with others, I realise that the doctors, nurses and the Manager (the rest of the panel) are bound to have a strong point of view on who makes a good receptionist as their work is influenced by the results of the receptionist's activities. Being upset with the situation did not help my judgement. Perhaps I was influenced by that occasion when my opinion was ignored in the last job.

And the choice of a man for the office - I had assumed that the others would not want a man in the office but they were actually pleased. They said it would be good to have a change. When I talked to the Manager about the interview, she said the chosen candidate is a bit young, but she feels that he is good with people and will learn quickly. His curriculum vitae suggests that he will be efficient and she said that our office as a whole needs to become more efficient and she is hoping his presence will stir things up. I realise I was making judgements on the basis of keeping things the same as they are.

So I realise that I had rather a narrow perspective on this interview – of wanting to keep the office the same as it is. I made assumptions that that is what the others would want and I was wrong. I also assumed that I knew best what was required in the job. All of my thinking was influenced by the fact that I was upset about my lack of importance on the panel. Talking to the Manager enabled me to recognise that there are points of view that I had not taken into consideration.

3. Approaches to critical thinking

The literature on critical thinking is very diverse. People think of it in different ways, for example, as

- logic
- as a set of skills and processes
- as something to do with pedagogy (teaching and learning processes)
- as a developmental process
- as an acquired way of thinking about knowledge and experiences in the world

4. The activities of critical thinking

Critical thinking involves different activities and this also causes confusion about what it 'is'. It is seen as:

- review of someone else's argument.
- evaluation of an object.
- development of an argument.
- critical thinking about one's self.
- the review of an incident
- engaging in constructive response to the arguments of others
- a habit of engagement with the world.

5. What does it take to learn to think critically?

A sufficiently challenging environment and an atmosphere in which people are willing to be challenged

A willingness to change one's mind, or fail

A willingness to challenge – sufficiency of academic assertiveness

A willingness to listen to other points of view

An understanding of the issues in thinking critically (as above)

A certain level of epistemological development – or sophistication in the understanding of what knowledge is.

6. Epistemological development

The term 'epistemology' is used here to refer to the learner's view of the nature of knowledge. Epistemological development has been the subject of a number of studies over the last half century that indicate that there is a developmental sequence in learners' epistemological beliefs and that this influences the manner in which learners function intellectually and it significantly affects their capacity for critical thinking, their ability to understand the nature of knowledge, the management of situations of uncertainty, their understanding of the nature of scientific endeavour and the idea of theory and its relationship to evidence.

I mainly refer to four substantial studies that broadly coincide on the nature of the continuum for epistemological development that they propose from experimental. The studies differ in the terminology that they use, in the populations that they studied, in the research method, in their focus on gender issues and in the number of stages in the continuum that they identified. They are Perry (1970), Belenky, Clinchy, Goldberger and Tarule (1986), King and Kitchener (1994) and Baxter Magolda (1992, 1994, 1996) (see comment about references below). With the exception of King and Kitchener, the research method was semi-structured interviewing. King and Kitchener asked subjects to work with ill-structured problems and then discussed with them their experience of the process.

Broadly the studies suggest that there is a qualitative change that occurs in learners' conceptions of knowledge and this is important for the processes of learning at the higher education stage. To describe this, I use Baxter Magolda's terminology for description, though I consider the description of stages a linguistically convenient means of describing a continuum. In this continuum of development, learners generally progress from 'absolute knowing' in which they tend to see knowledge as 'right or wrong', black or white – as a series of facts that they will absorb from a teacher who has the facts. Knowledge tends to be viewed as a commodity. They see teaching as the process of the 'passing over' of knowledge'. The teacher is expert. They shift towards the 'contextual knowing' phase in which they can (eventually) come to recognize that there may be a range of perspectives on any matter. At this stage they can also understand and assess in a sophisticated manner, the relationships between the different perspectives – that might be called theories or paradigms – and the issue in question. They can work in situations of uncertainty, taking appropriate measures to manage the situation in relation to their current purposes. They see their 'teachers' as partners in the development of knowledge. Only four of the undergraduates in Baxter Magolda's original study (1992) actually reached this stage – but I would see this stage – of contextual knowing - as epitomising the stage to which we should expect learners on a Master's programme to reach.

In some later work, Baxter Magolda suggested that learners progress when they are challenged in higher education

learning environments or in situations where they need to exercise independent judgements (eg in work placements or in professional situations), However, they do not do this 'smoothly' but by shifting forwards and sometimes backwards in different elements of this progression as they encounter different challenges to their learning. Most of the population largely functions with absolutist conceptions of knowledge – and it is the language of the absolutist stage that largely is used for general reference to knowledge and learning.

Below, I give you an outline of the four stages of epistemological development described by Baxter Magolda. I have also given you an example of what a student at each stage might say about her or his learning.

7. Exercise on Epistemological Development (after Baxter Magolda)

The exercise is developed by Jenny Moon. It is based on material taken from Baxter Magolda, M (1992) *Knowing and Reasoning in College*, San Francisco, Jossey-Bass. Some of the quotations are slightly modified to make better sense.

The stages of knowing described by Baxter Magolda (1992)

Stage of Absolute Knowing

In this stage knowledge is seen as certain or absolute. It is the least developed stage in Baxter Magolda's scheme. Learners believe that absolute answers exist in all areas of knowledge. When there is uncertainty it is because there is not access to the 'right' answers. Such learners may recognise that opinions can differ between experts but this is differences of detail, opinion or misinformation. Formal learning is seen as a matter of absorption of the knowledge of the experts (eg teachers). Learning methods are based on absorbing and remembering.

Transitional stage

There is partial certainty and partial uncertainty. Learners start to have some doubts about certainty and consider that authorities may differ in view because there is uncertainty. Learners see themselves as needing to understand rather than just acquire knowledge so that they may make judgements as to how best to apply it. Teachers are seen as facilitating the understanding and the application of knowledge.

Independent knowing

Learners understand that there is uncertainty in knowledge but they consider that everyone should develop her/his own beliefs or opinions. This would seem to be an embryonic form of the more sophisticated stage of contextual knowing. Learners now expect to have an opinion and can begin to think through issues and to express themselves. They also regard their peers as having useful contributions to make to the development of their opinions. They will expect teachers to support the development of independent views, providing a context for exploration. However 'In the excitement over independent thinking, the idea of judging some perspectives as better or worse is overlooked' (Baxter Magolda 1992:55).

Contextual knowing

This stage is one in which knowledge is understood to be constructed, and the way in which knowledge is constructed is understood in relation to the consideration of the quality of knowledge claims and the context in which they are made is taken into account. Opinions are now be supported by evidence. The view of the teacher is of a partner in the development of appropriate knowledge.

8. Critical thinking and epistemological development

I consider that to be an effective critical thinker in its more sophisticated meaning, learners need to be reasonably sophisticated in their level of thinking in epistemological development terms. For example, if you believe that there are only right and wrong answers to be sought, then you cannot be a deep critical thinker and recognise that there are multiple perspectives on issues etc.

8. Critical thinking and pedagogy

The classroom or lecture theatre should be a place in which thinking is constantly challenged. This helps both the development of epistemological beliefs and the development of critical thinking (I see them developing in parallel). Students should not sit and just listen. **What do you need to do to facilitate critical thinking?**

Exercise for introducing and for improving the quality of critical thinking: The incident on a walk

This is an activity of critical thinking about an incident and will be a common form of critical thinking in professional practice. In the last two accounts of this exercise, where the writing is deeper, there are more issues with which to deal and the text would be much longer. In these accounts, therefore, we deal mainly with the first of the points raised about the briefing. It is important to remember that it is the quality of the represented critical thinking that matters – and not the content.

Background: Sam and Gill are qualified walk leaders. They are leading a set of four one-day walks around the Shallon hills, on behalf of the Nature Authority. It is a fairly remote and rough area. An incident has occurred and they need to consider it for its implications for their practice as guides. They have a report to write on it. The four accounts are written at different depths of critical thinking

Account 1

Saturday 6th July: We began the circular walk of the Shallon hills at 9.00. There were ten walkers. The briefing was done. Sam and I (Gill) had talked about what we would do if some of the walkers were not equipped for a walk the hills in weather like that. It was very wet and the forecast was for it to continue over the whole weekend. Several of the walkers had lightweight jackets, one was without a hood and one had sandals on instead of walking boots. We were not really happy with the situation, but did not say anything - it was summer after all. Being warm, it was difficult to know what to say to them, especially when they had received the information pack and paid money to come.

We had walked for two hours in very wet conditions and stopped for coffee. Everyone seemed to

be happy and they were all talking, including the two who subsequently had problems. We walked on and not far on I noticed that Sam was having difficulty keeping the back markers up to the pace. We had a long way to go that day and needed to push on. Then I looked back and he had stopped with them eventually I walked back. It seemed that one of them had got very cold and was wet through. We talked about the situation. She was getting a bit vague - a sign of hypothermia. She had to be got back. According to the plans that we had made, Sam took her (with her friend) off the hills. Meanwhile I went on with the rest of the group.

That evening, Sam said that the girls were very cold as he walked them off and one was well on the way to hypothermia - she kept wanting to lie down - a sure sign. It seemed that the incident affected the rest of the group quite a bit and we talked about that too.

There is some thinking to be done about walkers and their equipment. For example, what do we say to them if they are not equipped?

Account 2

Incident of hypothermia on the Shallon Hill walk, July 6th 2006 -

We met the group of ten walkers for a briefing and as a means of checking their equipment. It was very wet and from the forecast was likely to stay that way all weekend. Several had inadequate gear for the conditions. What could we do? I realised that we had not discussed how to deal with this situation. Should we have told them to go away when they had paid? How could we have sent them away at this stage? I felt caught between my instincts as a qualified leader, and the contract we have with the Nature Authority. I was a bit disturbed by this dilemma and because of this and the fact that it was actually quite a warm day we said nothing. Maybe we made a mistake.

We started the walk and they seemed happy enough. We were watching those who were likely to be getting wet. It was after a coffee stop that Sam noticed that the two we were most concerned about were dropping back. On talking with them, he found that one was shivering a lot, and seemed vague. She was clearly too cold to proceed. We put her into dry clothes and as agreed, Sam took her and her friend off the hills. He had difficulty with this; the woman kept wanting to lie down - hypothermia had set in.

I was surprised at the effect that the event seemed to have on us all. I was, of course, very conscious about looking out for signs of cold in the rest of the walkers and we were more careful after this incident. We did not stop for long at a time, for example, and kept moving.

So there were several things in this incident that we need to think about - what should we have done about the poor equipment at the stage of the briefing? Did we manage the situation right when we discovered that the girl was cold? Looking back on the event I recognise that there was the potential for a much more serious situation. We should use the incident to plan what we would do on other occasions which were wet or for other situations like this.

Account 3

Case of hypothermia on Shallon Hills walk series July 6th 2006

The walk was led by Gill D and Sam K and this is a jointly prepared report. The first issues on this

walk arose at the briefing. There were ten walkers, eight were well equipped for the wet conditions and two inadequately dressed – in showerproof jackets, one with no hood. The forecast was for heavy rain all weekend, though it was warm. We were both concerned about the inadequate clothing, frustrated that they had ignored the instructions and worried about the reaction of the Authority if we sent them away. We should have been prepared to talk about it but it was difficult to deal with in this context. We needed to talk in private and make a decision about turning them away – even though they had paid. We did not create an opportunity for the private talk and, partly because it was so warm, we let them come. In retrospect, this was an incorrect decision.

We walked on for two hours, then stopped for 25 minutes. Prior experience should have indicated to us that you can get very cold if wet, even in warm conditions because then there is the issue of condensation. Stopping too long for coffee was probably a mistake. We walked on and at this stage, Sam noticed that one of the two with inadequate clothing was a bit odd. He spoke with her and observed early signs of hypothermia. I went back and we confirmed that she needed to be taken off the hills. We got warm clothes onto her with difficulty and Sam took her and her companion off the hills. During the walk off the hills, he observed that she was showing quite serious signs of hypothermia – wanting to stop and lie down etc. It was only afterwards that we realised how dangerous a situation this could have been.

I (Gill) walked with the other walkers. Because I realised how easy it was to get cold even on that warm day, I took a lot more care to watch for signs of cold and we did not stop anywhere for long.

There are several issues here. First (1) the adequacy of clothing and how we handle that at the briefing; *secondly (2) the management of the walk, given that we had two ill-equipped walkers with us; thirdly (3) the management of the situation when we realised that we had a case of hypothermia and fourthly (4) the management of the rest of the walk. (only the first of these is discussed below)*

1. With regard to the clothing issue, we were disturbed by that. The girls had had the instructions but maybe they thought that they had adequate clothing – it is hard to tell what people understand by 'adequate clothing'. Perhaps the instructions need to be better and they need to be clearer that people could be turned away. In that respect, we were worried that the Nature Authority might not support us if we turned them away. The walkers had, after all, paid for the walk, but safety is an issue that cannot be ignored. There was a difficulty too in how we could manage the situation at the briefing – we need to ensure that we do talk in private and share opinions after the briefing and before we walk. There may be things in that decision-making process that also we need to discuss.

Account 4

Shallon Walk July 6th 2006

A case of hypothermia on a one day walk

This is a jointly written incident report (walk leaders, Gill D and Sam K). We have discussed some of these issues with colleagues before writing it and this version of the report includes issues raised by our colleagues. We note how easily this situation that we describe could have become a dangerous one.

The incident

The ten walkers were sent usual instructions about the importance of appropriate equipment in advance. At the briefing, we noted that two were ill equipped - having shower jackets, one without a hood and one with sandals, not boots. It was very wet, with rain forecasted to continue but it was warm and we let them proceed. When we talked about this later, neither of us was happy about the decision that we made at the time, but we tended to hold back that expression of doubt – perhaps because it was the easier option to let them walk. We have realised that we need to be able to get away from the group to have a conversation after the briefing, sharing any concerns – and we need to be honest – only then should we make a decision.

We walked for two hours, stopped for 25 minutes, then walked on and it became evident that one of those in inadequate clothing was becoming hypothermic. Having put warm clothes on her, Sam took her and her companion off the hills. During the walk off the hill, it became evident that the hypothermia was quite advanced. The event had a considerable impact on the day and we wish to consider our management of the situation within this report, as well as the incident itself.

Considerations

There are several issues here for more general consideration.

1 The broad issues of equipment; the instructions about it in the joining information – and the management of ill-equipped walkers at the briefing.

2 Our management of the walk under those weather conditions, given that we had let ill-equipped people come.

3 Our handling of the case of hypothermia.

4 The overall management of the walk once the incident had happened.

And other issues may emerge.

(Only the first of these points is discussed below)

1. We deal first with issues around equipment, reference to equipment in the joining instructions and the management of the briefing. In going over the situation in several discussions and in writing this report, we feel that we made an error in allowing the ill-equipped walkers to come with us on that walk.

We noted that the walkers had received instructions to wear suitable clothing and they had a warning that they may not be able to proceed if they did not wear enough. However, it is very difficult to turn them away at the briefing situation. They have paid for the walk, traveled here, and are expecting to go walking. However there is the safety issue, obviously theirs, and, one could argue, that of the other walkers who were left with one leader for a long day in difficult conditions.

Clearly we have to be able to turn people away on occasions. It may be that the joining instructions could be strengthened. For example, they could stress the distinction between waterproof gear and showerproof jackets. It is possible that they girls thought what they were wearing was adequate. Just because we know the nature of proper equipment does not mean that more casual walkers understand. They probably had no understanding of just how wet these hills can be. It would be useful to get the opinions of the occasional walkers about the issues of clothing and what they think they need for particular conditions.

There is also the relationship between us and the Nature Authority. Both of us, as leaders, were disturbed by the kind of relationship we have with the Authority and it influenced in our decisions on the day of the walk. We know of an incident four weeks ago when a walker in sandals was turned away. He complained to the Authority and the guide was 'ticked off'. We, as leaders, need to feel confident enough to turn people away if necessary and we should not be concerned about the Authority when we make such a decision. We have talked to other colleagues and we feel that we would have better confidence to make decisions if we knew that we had the full backing of the Nature Authority.

A problem arose at the briefing when we did not feel at ease to have a private talk away from the group in order to discuss our concerns and make a decision about action. There seemed to be an assumption that the briefing was about the walk itself and not about preparedness for the walk. We need to be clearer about the briefing, and to build in a brief meeting between the two leaders in order to go over any concerns (there could be other issues) and – as would have been in this case, to decide on whether we should turn away the ill-equipped walkers.

Actions on point 1: (Gill and Sam drew out issues for action or for further consideration at a meeting with colleagues at the ends of consideration of the points made)..

Shifts in the texts of the scenario as the critical thinking deepens

In the shift from superficial critical thinking to deep critical thinking, text shifts in the following ways:

- - from description about the surface matters (possibly a narrative) to text that is shaped by the critical thinking process towards the required outcome(s). There is a shift from a structure in which there is little focus – to a structure that is focused and purposive;
- - from the absence of argument and comparison to the presence of argument/comparison;
- from dealing with surface characteristics of the words and ideas in the task to a deeper consideration (eg, assumptions in word meanings will be dealt with in deeper accounts, but not in descriptive accounts);
- from a descriptive text to one in which questions are raised, to one in which there is a response to questions raised;
- from not noticing or not dealing with emotional aspects of the issue – to noticing, dealing with and reasoning about emotions in relation to the issue;
- from the giving of unjustified opinion as conclusion to the presentation of a considered conclusion based on evidence provided with a note of limitations of the thinking;
- from a one dimensional account (with no recognition of there being further points of view, perhaps of others) to a recognition of other points of view;
- from the no recognition of the role of prior experience to the taking into account of prior experience and the effects it might have on judgement;
- from a text in which there is a drift from idea to idea rather than a deliberated persistence in dealing with selected and relevant topics
- from no metacognition /reflexivity, to reflexivity and metacognition.

Framework for critical thinking and its representations

In these descriptions of critical thinking, the word 'issue' is used as a shorthand form for the topic that is under consideration or the task. Different activities of critical thinking and different forms of representation may necessitate the modification of the language

Descriptive Writing with little evidence of critical thinking

The text is descriptive and it contains little questioning or deepening of any issue. It may provide a narrative account which is from one point of view, in which generally one point at a time is made. Ideas tend to be linked by the sequence of the account rather than by meaning and there may be no overall structure and focus.

There is no real argument and not much comparison

Any introduction to the issue to be examined may tend to miss the point of the issue and pick up the surface characteristics of it – such as words used, rather than the meaning of them. It is taken at face value.

Assumptions are likely to be left unexamined and probably unnoticed

The text may refer to past experiences or opinions, but just as direct comment with no analysis and all in the context of this single viewpoint

There may be references to emotional reactions but they are not explored and not related to any conclusions that may be drawn.

There may be ideas or external information, but these are not considered in depth, questioned or integrated.

There is little attempt to persist in the focus on particular issues. Most points are made with similar weight.

A conclusion may either not be properly drawn, or it is drawn but it is not justified by the text. It may be opinion and unrelated to any reasoning in the text.

Descriptive text that moves towards critical thinking

This is similar to the above, but there is some attempt to recognise the task and broadly but still descriptively, structure the material towards the reaching of some sort of conclusion. It is not the kind of structure that will enable proper critical thinking.

There may be some comparisons made between ideas but probably no more than two ideas at a time.

There a form of introduction of the issue to be discussed, in which something of the critical thinking task is recognised,

Assumptions or points for analysis may be noted or questioned but they are not explored in depth – or they are fully related to the task or not drawn into any conclusion

There may be some drawing in of additional ideas, reference to alternative viewpoints or attitudes to others', comments but these are not explored at depth or focused on in the working though the issue towards a conclusion.

There is recognition of the worth of further exploring but it does not go very far.

Any conclusion, tend to be partly opinion or not fully or justified by the text.

Critical thinking (1)

The structure of the text begins to change towards being a vehicle for critical thinking. It is no longer a straight-forward account of an event, but it is definitely reflective and analytical and the writing seems more intentionally designed and focused. The issue is introduced and probably the wording is explored in order that any deeper meaning or assumptions can be elicited.

There is a more appropriate conclusion that does relate to the text, drawing from it and relating back to the issue raised in the introduction.

There is evidence of external ideas or opinions and where this occurs, the material is subjected to reflection and consideration in relation to the task.

There is appropriate questioning of the ideas, and assumptions; some obvious mulling over. Assumptions are examined and sub-conclusions are drawn into the text.

Where relevant, there is willingness to be critical of the action of self or others. There may be evident willingness to challenge one's prior ideas or those of others.

There is evident 'standing back' from the event, consideration and reconsideration of it.

There is recognition of emotional content, a questioning of its role and influence and an attempt to consider its significance in shaping the views presented.

There may be recognition that things might look different from other perspectives; that views can change with time or the emotional state. The existence of several alternative points of view may be acknowledged, though not necessarily fully analysed (depending on the task).

The text may recognise in a limited way that personal and others' frames of reference affect the manner of thinking, but analysis of this is not fully demonstrated in the making of the judgement or conclusion.

The conclusion is based on evidence in the text.

Critical thinking (2)

There is an introduction of the issue, an examination of the wording (eg meanings and assumptions) or context of it as appropriate. It may be reinterpreted so that it can be more clearly analysed.

The context, purpose for or limitations of the current thinking may be mentioned.

The selection of the evidence for examination is appropriate and sufficiently wide ranging.

The evidence is examined in a systematic manner that is well structured in relation to the task or issue. There is an appropriate balance between discussion of evidence and deliberation towards the response. There is good 'signposting' within the writing.

The account shows deep reflection, and it incorporates the recognition that the frame of reference or context within which the issue is viewed, could change and affect the conclusion.

A metacognitive stance is taken (ie there is critical awareness of the processes of critical thinking in themselves).

The account may recognise that the issue exists in a historical or social context that may be influential in the on the response to the task. In other words, multiple perspectives recognized and account is taken account.

There may be evidence of creativity in the processes of thinking and reasoning or in the range or nature of evidence used in the critical thinking

Self questioning and possibly self challenge is evident.

There is a recognition of any influences on thinking and judgement such as the timing of the reponse, emotion, contextual matters, prior experience, personal interest in the outcome etc.

The conclusion effectively draws together the ideas developed in the text as evidence and makes a judgement in response to the topic introduced or given, recognizing any particular limitations of the judgement.

Reflective learning

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Some resources

Reflection - <http://www.cemp.ac.uk/People/JennyMoon/reflectivelearning/> (50 pages)

Learning journals <http://www.cemp.ac.uk/People/jennymoon/learningjournals/> (30pages)

Production Analysis - <http://www.cemp.ac.uk/People/jennymoon/productionanalysis/> (on reflective work for undergraduates who have a final year project that involves reflective writing on process). It is directed towards media and art and design students' work.

See also Academic assertiveness - <http://www.cemp.ac.uk/People/jennymoon/academicassertivenessinhe/>

Some definitions of reflection

There is no one definition of reflection. This is the definition which I use.

Reflection is a form of mental processing - like a form of thinking - that we may use to fulfil a purpose or to achieve some anticipated outcome. Alternatively we may simply 'be reflective', and then an outcome can be unexpected. The term 'reflection' is applied to relatively complex or ill-structured ideas for which there is not an obvious solution and it largely refers to the further processing of knowledge and understanding that we already possess.

In academic situations there is more to say:

In academic contexts the notion of reflection has been developed as a tool to support learning. In an academic context, reflection is likely to involve a conscious and stated purpose for the reflection, with an outcome that is specified in terms of learning, action or clarification. The academic reflection may be preceded by a description of the purpose and / or the subject matter of the reflection.

The process and outcome of the reflective work is most likely to be in a represented (eg written) form and to be seen by others and to be assessed. These factors can affect its nature and quality. (From Moon, 2004)

Metaphors can be helpful!

'Harry stared at the stone basin. The contents had returned to their original silvery white state, swirling and rippling beneath his gaze.

"What is it?" Harry asked shakily.

"This? It is called a pensieve", said Dumbledore. "I sometimes find - and I am sure that you know the feeling - that I simply have too many thoughts and memories crammed into my mind."

"Er", said Harry, who couldn't truthfully say that he had ever felt anything of the sort.

"At these times", said Dumbledore, indicating the stone basin, "I use the pensieve. One simply siphons the excess thoughts from one's mind, pours them into the basin, and examines them at one's leisure. It becomes easier to spot patterns and links, you understand, when they are in this form". (From 'The Goblet of Fire', JK Rowling).

The Park - An exercise to introduce and improve the quality of reflection

The Park (1)

I went through the park the other day. The sun shone sometimes but large clouds floated across the sky in a breeze. It reminded me of a time that I was walking on St David's Head in Wales – when there was a hard and bright light and anything I looked at was bright. It was really quite hot – so much nicer than the day before which was rainy. I went over to the children's playing field. I had not been there for a while and wanted to see the improvements. There were several children there and one, in particular, I noticed, was in too many clothes for the heat. The children were running about and this child became red in the face and began to slow down and then he sat. He must have been about 10. Some of the others called him up again and he got to his feet. He stumbled into the game for a few moments, tripping once or twice. It seemed to me that he had just not got the energy to lift his feet. Eventually he stumbled down and did not get up but he was still moving and he shuffled into a half sitting and half lying position watching the other children and I think he was calling out to them. I don't know.

Anyway, I had to get on to get to the shop to buy some meat for the chilli that my children had asked for for their party. The twins had invited many friends round for an end-of-term celebration of the beginning of the summer holidays. They might think that they have cause to celebrate but it makes a lot more work for me when they are home. I find that their holiday time makes a lot more work.

It was the next day when the paper came through the door – in it there was a report of a child who had been taken seriously ill in the park the previous day. He was fighting for his life in hospital and they said that the seriousness of the situation was due to the delay before he was brought to hospital. The report commented on the fact that he had been lying unattended for half an hour before someone saw him. By then the other children had gone. It said that that several passers-by might have seen him looking ill and even on the ground and the report went on to ask why passers-by do not take action when they see that something is wrong. The article was headed 'Why do they 'Walk on by'? I have been terribly upset since then. James says I should not worry – it is just a headline.

The Park (2)

I went to the park the other day. I was going to the supermarket to get some meat to make the chilli that I had promised the children. They were having one of their end-of-term celebrations with friends. I wonder what drew me to the playground and why I ended up standing and watching those children playing with a rough old football? I am not sure as I don't usually look at other people's children – I just did. Anyway there were a number of kids there. I noticed, in particular, one child who seemed to be very overdressed for the weather. I try now to recall what he looked like - his face was red. He was a boy of around 10 – not unlike Charlie was at that age – maybe that is why I noticed him to start with when he was running around with the others. But then he was beginning to look distressed. I felt uneasy about him – sort of maternal but I did not do anything. What could I have done? I remember thinking, I had little time and the supermarket would get crowded. What a strange way of thinking, in the circumstances!

In retrospect I wish I had acted. I ask myself what stopped me - but I don't know what I might have done at that point. Anyway he sat down, looking absolutely exhausted and as if he had no energy to do anything. A few moments later, the other children called him up to run about again. I felt more uneasy and watched as he got up and tried to run, then fell, ran again and fell and half sat and half lay. Still I did nothing more than look – what was going on with me?

Eventually I went on I tell myself now that it was really important to get to the shops. It was the next day when the paper came through the door that I had a real shock. In the paper there was a report of a child who had been taken seriously ill in the park the previous day. He was fighting for his life in the hospital and the situation was much more serious because there had been such a delay in getting help. The report commented on the fact that he had been lying, unattended, for half an hour or more. At first, I wondered why the other children had not been more responsible. The article went on to say that several passers-by might have seen him playing and looking ill and the report questioned why passers-by do not take action when they see that something is wrong.

The event has affected me for some days but I do not know where to go or whom to tell. I do want to own up to my part in it to someone though.

The Park (3)

The incident happened in Ingle Park and it is very much still on my mind. There was a child playing with others. He looked hot and unfit and kept sitting down but the other children kept on getting him back up and making him play with them. I was on my way to the shop and only watched the children for a while before I walked on. Next day it was reported in the paper that the child had been taken to hospital seriously ill – very seriously ill. The report said that there were several passers-by in the park who had seen the child looking ill and who had done nothing. It was a scathing report about those who do not take action in such situations.

Reading the report, I felt dreadful and it has been very difficult to shift the feelings. I did not stop to see to the child because I told myself that I was on my way to the shops to buy food for a meal that I had to cook for the children's party – what do I mean that *I had to cook it?* Though I saw that the child was ill, I didn't do anything. It is hard to say what I was really thinking at the time – to what degree I was determined to go on with my day in the way I had planned it (the party really was not that important was it?). Or did I genuinely not think that the boy was ill – but just over-dressed and a bit tired? To what extent did I try to make convenient excuses and to what extent was my action based on an attempt to really understand the situation? Looking back, I could have cut through my excuses at the time – rather than now.

I did not go over to the child and ask what was wrong but I should have done. I could have talked to the other children - and even got one of the other children to call for help. I am not sure if the help would have been ambulance or doctor at that stage – but it does not matter now. If he had been given help then, he might not be fighting for his life.

It would be helpful to me if I could work out what I was really thinking and why I acted as I did. This event has really shaken me to my roots – more than I would have expected. It made me feel really guilty. I do not usually do wrong, in fact I think of myself as a good person. This event is also making me think about actions in all sorts of areas of my life. It reminds me of some things in the past as when my uncle died – but then again I don't really think that that is relevant - he was going to die anyway. My bad feelings then were due to sheer sadness and some irrational regrets that I did not visit him on the day before. Strangely it also reminds me of how bad I felt when Charlie was ill while we went on that anniversary weekend away. As I think more about Charlie being ill, I recognise that there are commonalities in the situations. I also keep wondering if I knew that boy....

The Park (4)

It happened in Ingle Park and this event is very much still on my mind. It feels significant. There was a child playing with others. He looked hot and unfit and kept sitting down but the other children kept on getting him back up and making him play with them. I was on my way to the shop and only watched the children for a while before I walked on. Next day it was reported in the paper that the child had been taken to hospital seriously ill – very seriously ill. The report said that there were several passers-by in the park who had seen the child looking ill and who had done nothing. It was a scathing report about those who do not take action in such situation.

It was the report initially that made me think more deeply. It kept coming back in my mind and over the next few days - I begun to think of the situation in lots of different ways. Initially I considered my urge to get to the shop – regardless of the state of the boy. That was an easy way of excusing myself – to say that I had to get to the shop. Then I began to go through all of the agonising as to whether I could have mis-read the situation and really thought that the boy was simply over-dressed or perhaps play-acting or trying to gain sympathy from me or the others. Could I have believed that the situation was all right? All of that thinking, I now notice, would also have let me off the hook – made it not my fault that I did not take action at the time.

I talked with Tom about my reflections on the event – on the incident, on my thinking about it at the time and then immediately after. He observed that my sense of myself as a 'good person who always lends a helping hand when others need help' was put in some jeopardy by it all. At the time and immediately after, it might have been easier to

avoid shaking my view of myself than to admit that I had avoided facing up to the situation and admitting that I had not acted as 'a good person'. With this hindsight, I notice that I can probably find it more easy to admit that I am not always 'a good person' and that I made a mistake in retrospect than immediately after the event. I suspect that this may apply to other situations.

As I think about the situation now, I recall some more of the thoughts – or were they feelings mixed up with thoughts? I remember a sense at the time that this boy looked quite scruffy and reminded me of a child who used to play with Charlie. We did not feel happy during the brief period of their friendship because this boy was known as a bully and we were uneasy either that Charlie would end up being bullied, or that Charlie would learn to bully. Funnily enough we were talking about this boy – I now remember – at the dinner table the night before. The conversation had reminded me of all of the angonising about the children's friends at the time. The fleeting thought / feeling was possibly something like this:– if this boy is like one I did not feel comfortable with – then maybe he deserves to get left in this way. Maybe he was a brother of the original child. I remember social psychology research along the lines of attributing blame to victims to justify their plight. Then it might not have been anything to do with Charlie's friend.

So I can see how I looked at that event and perhaps interpreted it in a manner that was consistent with my emotional frame of mind at the time. Seeing the same events without that dinner-time conversation might have led me to see the whole thing in an entirely different manner and I might have acted differently. The significance of this whole event is chilling when I realise that my lack of action nearly resulted in his death – and it might have been because of an attitude that was formed years ago in relation to a different situation.

This has all made me think about how we view things. The way I saw this event at the time was quite different to the way I see it now – even this few days later. Writing an account at the time would have been different to the account – or several accounts that I would write now. I cannot know what 'story' is 'true'. The bullying story may be one that I have constructed retrospectively - fabricated. Interestingly I can believe that story completely.

In deepening reflection, there are shifts –

- from description to reflective account;
- from no questions to questions to responding to questions;
- emotional influence is recognised, and then handled increasingly effectively
- there is a 'standing back from the event'
- there is a shift from self questioning, challenge to own ideas
- from recognition of relevance of prior experience
- in the taking into account of others' views
- towards metacognition - review of own reflective processes

A Generic Framework for Reflective Writing

Descriptive Writing

This account is descriptive and it contains little reflection. It may tell a story but from one point of view at a time and generally one point at a time is made. Ideas tend to be linked by the sequence of the account / story rather than by meaning. 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 may be references to emotional reactions but they are not explored and not related to behaviour.

The account may relate to ideas or external information, but these are not considered or questioned and the possible impact on behaviour or the meaning of events is not mentioned.

There is little attempt to focus on particular issues. Most points are made with similar weight.

The writing could hardly be deemed to be reflective at all. It could be a reasonably written account of an event that would serve as a basis on which reflection might start, though a good description that precedes reflective accounts will tend to be more focused and to signal points and issues for further reflection.

Descriptive account with some reflection

This is a descriptive account that signals points for reflection while not actually showing much reflection.

The basic account is descriptive in the manner of description above. There is little addition of ideas from outside the event, reference to alternative viewpoints or attitudes to others, comment and so on. However, the account is more than just a story. It is focused on the event as if there is a big question or there are questions to be asked and answered. Points on which reflection could occur are signalled.

There is recognition of the worth of further exploring but it does not go very far. In other words, asking the questions makes it more than a descriptive account, but the lack of attempt to respond to the questions means that there is little actual analysis of the events.

The questioning does begin to suggest a 'standing back from the event' in (usually) isolated areas of the account.

The account may mention emotional reactions, or be influenced by emotion. Any influence may be noted, and possibly questioned.

There is a sense of recognition this is an incident from which learning can be gained, – but the reflection does not go sufficiently deep to enable the learning to begin to occur.

Reflective writing (1)

There is description but it is focused with particular aspects accentuated for reflective comment. There may be a sense that the material is being mulled around. It is no longer a straight-forward account of an event, but it is definitely reflective.

There is evidence of external ideas or information and where this occurs, the material is subjected to reflection.

The account shows some analysis and there is recognition of the worth of exploring motives or reasons for behaviour

Where relevant, there is willingness to be critical of the action of self or others. There is likely to be some self questioning and willingness also to recognise the overall effect of the event on self. In other words, there is some 'standing back' from the event.

There is recognition of any emotional content, a questioning of its role and influence and an attempt to consider its significance in shaping the views presented.

There may be recognition that things might look different from other perspectives, that views can change with time or the emotional state. The existence of several alternative points of view may be acknowledged but not analysed.

In other words, in a relatively limited way the account may recognise that frames of reference affect the manner in which we reflect at a given time but it does not deal with this in a way that links it effectively to issues about the quality of personal judgement.

Reflective writing (2)

Description now only serves the process of reflection, covering the issues for reflection and noting their context. There is clear evidence of standing back from an event and there is mulling over and internal dialogue.

The account shows deep reflection, and it incorporates a recognition that the frame of reference with which an event is viewed can change.

A metacognitive stance is taken (ie critical awareness of one's own processes of mental functioning – including reflection).

The account probably recognises that events exist in a historical or social context that may be influential on a person's reaction to them. In other words, multiple perspectives are noted.

Self questioning is evident (an 'internal dialogue' is set up at times) deliberating between different views of personal behaviour and that of others).

The view and motives of others are taken into account and considered against those of the writer.

There is recognition of the role of emotion in shaping the ideas and recognition of the manner in which different emotional influences can frame the account in different ways.

There is recognition that prior experience, thoughts (own and other's) interact with the production of current behaviour.

There is observation that there is learning to be gained from the experience and points for learning are noted.

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.

Material developed by Jenny Moon, Bournemouth University

'Answers' Epistemological Development Exercise

Absolutist – knowledge is certain or absolute;

I just like to listen – just sit and take notes from an overhead. The material is right there. And if you have a problem, you can ask the teacher and he can explain it to you. You hear it, you see it and then you can write it down (p 73)

I like getting involved with the class – by answering questions and asking questions. Even if you think you know everything, there are still questions you can ask. When the lecturer asks questions, you can try to answer them to your best ability. Don't just let the lecturer talk to you, have him present questions to you (p 73)

I have to see what I'm learning, and I have to know why. I have a good memory and it's very easy for me to memorise facts. The advantage is that it's kind of cut and dried. The information is there – all you have to do is to soak it up in your brain (p77).

I like teachers who will give you as much as you need and not just leave you with a little small idea and have you talk it out. I like it when they give you a lot of information. Then you can discuss it (p31)

In my opinion, the best way to learn is to listen in class and not be distracted (p34)

Transitional knowing – There is partial certainty and partial uncertainty

My French teacher is getting away from the book exercises because everyone falls asleep. She's started getting us into group discussions using our reading, but she corrects our tenses and sentence structure. It's much more real, much more practical and I think that's what we need. People are glad to be learning something that we can actually use (p 39)

When you've got fifty other people in the room challenging your views every ten seconds, you learn to assimilate everything. You try to piece out what you think is the best out of a conglomerate whole. That's the best (p105)

I had a different teacher in the sophomore level of the subject, and I learned to interpret things differently. When you have someone else give you a different interpretation of the same subject, you're forced to go back and do comparisons. And I thought, well, why would this person teach this subject this way and be successful and at the same time there's a person teaching it in a different way but still being successful? It begins to change you a bit (p103).

We'd start a class having read the material and then the lecturer would walk in and say something completely wrong. A shout would break out from the back of the class and we'd just start knocking at each other going back and forth at the same topic for the entire class period. Doing that just ingrains in your mind that no matter how right you think you are, you've got to hear somebody else out because they're to some extent right too (p105)

I have a tutor this semester who puts an outline on the board, of things he's going to cover. That way, even if I don't have the clearest notes – at least I know what he intended to cover.

Independent knowing – Learning is uncertain – everyone has her own beliefs

I've decided that the only person that you can really depend on is yourself. Each individual has their own truth. No-one has the right to decide 'this has to be your truth too' (p136)

I don't set anything that I feel in cement, which is what I did before. I've found that my foundations completely crumbled out from under me when I went on that exchange programme. I had to rebuild them for myself, which is the best thing that ever happened to me (p 137)

I want to be challenged. I am in a gender theory course that has a lot of women's studies students in it. There I feel challenged. My own politics are closely like theirs, but I don't have the background that they have. When I speak up, I have to really concentrate on what I think, communicate it effectively, and then when there's a discrepancy between what I think and what someone else thinks then I feel I can grow (p53)

It's funny. You read the same thing yet people see three different stories or three different meanings or interpretations. It helps you to reaffirm your own opinion, modify it or whatever is necessary (p50)

I guess I take everything in and then I go home at night and kind of sort out what I want and what I don't want. Some things, I guess – maybe because of my morals and values – will sit better with me and will seem like fact for me. And other things, I'm just like "I don't really think so". And I throw them out (p141)

Contextual knowing — Knowledge is constructed and any judgement must be made on the basis of the evidence in that context.

As you hear other people's opinions, you piece together what you really think. Who has the valid point? Whose point is not valid in your opinion? And (you) come to some other new understanding. Even if it's the same basic belief, maybe (you will be) able to look at it from a more (multi)dimensional perspective (p173).

I spent time getting a general feel for the topic as a whole before I made any generalisations. And then, after that, I started piecing together any general ideas that I believed in or general principles that I then tried to defend....And if it

seemed like I was going against that principle too often or disagreeing with it too often, then I would sit down and reevaluate. Like maybe I'd learned something new that changed my way of thinking. So then I'd have to sit down and reevaluate that and then possibly change my mind accordingly (p174)

It's super-subjective. It is largely a matter of weighing other people's opinions and their facts against what you, yourself, have previously processed (p59)

In some classes, particularly when you're talking politics, you have people that are super-fired up on the left and on the right. Those people who are totally impassioned by their thoughts and feelings help to offset each other, so you can kind of arrive at something in the middle. You have then to take it in and let it process before you form a reaction (p59)

You can look at an issue from both sides and it's still history and you're still getting those facts and those different opinions about things and that's a kind of basis. But now you're taking that and working with it to come up with some sort of conclusion, or maybe not a conclusion and that's the conclusion in itself (p177)