Lynch, M.J and Gregory, L.D. (2017). A reflection on the state of Disaster Risk Management (DRM) in Timor Leste from 2008 to the present time with a focus on the effects of government decisions and NGO/UN Agency initiatives, frameworks and agreements in relation to the region.

Abstract

This paper examines existing source material that has been produced over the reflection time period (2013 to 2017). Through this the authors will determine whether principles of reflection in action (Schon, 1983) have been used by key stakeholders including the Timor Leste Government as part of the decision-making process influencing and determining the directions Timor Leste has taken in DRM. Examples of the materials used will be diary notes, reports, papers, government meeting minutes, NGO and representative meeting minutes and general comments from attendees and participants in events and meetings.

Introduction/overview

Timor Leste (TL) is responsible for its own Disaster Risk Reduction and Management but needs to comply with global and regional DRR/DRM directions and is a signatory to the major initiatives (ADB, 2014; AMCDRR, 2014; ASEAN, 2007; Carabine, 2015; PACNEWS, 2015; UNISDR, 2015). These accords and agreements directly influence the laws and policies of the Ministries responsible for DRM in TL (MSS,2009; IOM, 2016; Government of Timor Leste, 2008, 2015).

For better or worse, TL has had a great number of international organisations and consultants giving it advice in DRM (GoTL, 2010; RMSI, 2015). As one of the youngest countries in the world, it was in the position to observe all the approaches to DRM used by various regions and countries and also to become involved in global initiatives without the previous policy baggage of many other nations. The major initial influences on DRM laws and policies were those of the United Nations, especially through its cluster approach (IOM, 2016; NGOs and Humanitarian Reform Project, 2010), Lusophone nations and their approach to DRM, and individual expert consultants that were either sought by the Government or came of their own accord in response to international tenders from Donors (ADB, World Bank, USAID, DFAT, JIKA, KOICA, GTZ, EU and others to name a few).

From all of these inputs, the Government of Timor Leste has attempted to create laws and policies across a number of Ministries that attempted to integrate all of these directions and advice into workable templates and frameworks (Government of Timor Leste, 2015).

There has been an attempt to ensure that no duplication of laws with the roles and responsibilities defined by the national disaster risk management policy and those of other ministries involved in DRM occurs. (Government of Timor Leste, 2008). Of course, this is not always the case as has also been noted by a number of bodies (MSS, 2009). Timor Leste eventually produced policies and directives in DRM

(Government of Timor Leste, 2008; 2015), but these are still subject to change through political machinations as well as global policies as has already been noted.

Rationale/significance

The situation as the authors arrived into Timor Leste in 2012 was best described in the paper by Westgate and de Deus (2012):

Underlying issues that needed to be addressed included:
- the limited disaster profile;
- the general levels of governance capacities in Timor Leste;
- the poor state of infrastructure, particularly the road network;
- the absence of DRR as a strategic priority in the Timor Leste Strategic Development Plan (2011 - 2030);
- the DRM agenda has been largely external and donor driven;
- there is a confusion at national level over clear responsibilities for DRM - NDMD versus civil protection.

The issues identified specific to NDMD included:
- there is no comprehensive DRM agenda in the country;
- NDMD is overwhelmingly involved in emergency response and recovery;
- NDMD's location in the MSS is misleading to other sectors and stakeholders;
- NDMD does not have the authority to coordinate other sectoral ministries;
- the NDOC has little capacity or equipment to act effectively;
- NDMD is attempting to deal with largely local issues from a centralised perspective;
- NDMD focal points in the districts are not permanent staff;
- the current NDMD policy runs until 2013 when a new policy will be needed;
- climate change issues are not the responsibility of MSS but another ministry;
- the multi-stakeholder CBDRM Working Group is ad hoc and meets irregularly;
- there is no specific agreement between NDMD and the CVTL concerning CVTL's role in supporting DRM.

The authors were assigned by AusAid in 2013 to contribute to key priorities of the NDMD. They were to play an important role in assisting the NDMD to develop better networks in government, to identify its own plans for engaging with districts, and support NDMD staff to engage in policy and planning discussions with other ministries. Working with the NDMD to instigate donor coordination meetings was also seen as a beneficial outcome. The position would also contribute to development of a revised national disaster response plan, a new disaster management policy, and better engagement with some high-risk districts.

Specific duties included (Terms of Reference):
1. Contribution to development of NDMD's key priorities, including a revised national disaster response plan and a new disaster management policy.
2. Assist the NDMD to develop networks in government, to identify its own plans for engaging with high-risk districts, and to support NDMD staff engage in policy and planning discussions with other ministries.

3. Assist the NDMD to develop a stronger and systematic coordination and communication approach to liaise with key international actors; including donors.

The major force for disaster risk reduction (DRR) has been the NGOs and the Red Cross National Society CVTL in country with little if any carried out by the NDMD. The major reason for this is still the lack of resources for the organisation. NDMD receives equipment from major donors (TV's etc) but often there is a lack of 'connecting' hardware for this technology. For example, the agency had state of the art plasma TV's for presentations and viewing of weather maps, but had no way of connecting the devices to computers or to the internet (this changed in 2016). The hardware that is practically used is at least 5-8 years old and often cannot 'talk' to newer donated devices.

NDMD responds to immediate disasters with a basic response structure in place. If the event is too large or occurs too frequently (within a short time frame) the overall resources of NDMD are stretched to breaking point. Because there is not a clear communication line between the government and NGOs working in the disaster area, there is a shortfall in overall logistic movement during an event. A paper produced by a consortium of NGOs - Humanitarian Country Team (HCT) - (Inter-Agency, 2012) goes to some length using a cluster approach to detail the roles of each player in a disaster. Although the scenarios used in the paper are a realistic and practical approach to any event, the NDMD does not use the paper, and the overall coordination of communication between groups tends to be picked up by UN agencies or the NGOs themselves rather than the government appointed body. A cluster approach is generally used in a failed or failing state where the government cannot cope with natural and complex disasters. Timor Leste is not in this position so it is probably not the best approach for integration of resources and activities in disaster management.
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NDMD is aware of its shortfalls and has attempted to overcome them through meetings of staff, scenario planning and to a lesser degree with ministerial bodies. The NDMD managers realise that standard operating procedures (SOP) are required at the community level (neighbourhood, Suco and District) but even after highlighting this in workshops, little is done to address this need. DRR falls into this category.

Lessons learned after the event are documented and meetings of major players called and well attended. But again, it seems that they are 'bottom-drawered' and the next event starts from scratch.

Both authors were attempting to bridge the gaps that are shown through personal experience and the points raised in the Westgate (2012) paper and the authors TOR.

The authors have acted as a 'critical friend' to senior NDMD managers who now see the authors as part of their team and a way of interacting more with expats, donors and NGOs. NDMD is aware of the skills the authors have and have been using them to create high level submission documents (MOU with corporates and corporate social responsibility opportunities; initial revision of policy documents; presentations at workshops; and accompanying senior staff to ministerial conferences, meetings

and seminars, again as a person with a different view and background to discuss the results of these events and their impact on NDMD.)

Although fully aware of the problems of becoming too integral to the success of projects in country (ie replacing local capacity and building dependency), the authors must play a facilitating role in order for some of the major donors to be involved. In this situation, the authors cultivate the relationships with the Government of Timor Leste (GoTL) staff and ministers and gain their trust to ensure that the roles undertaken are replacing GoTL staff but rather as an addition to them. Because of this role, the authors also work across departments and line ministries and so act as advisors to the Minister and the Vice Minister of Social Solidarity. As native English speakers, the authors are asked to interpret the presentations of the major donors and to give their views as to the impact of multimillion dollars projects across various stakeholders and TL as a whole.

Of course, this, by necessity, is a slow process and can be perceived as laborious. But with the experience of the authors, it is known that relationships take some time to develop and with this comes trust. The next issues to arise revolve around the communications between NDMD and the NGOs and UN bodies. During this time of (hopefully) no major, recurrent disasters (specifically floods and related events), NDMD and the authors have been assisting in replenishing emergency response stocks, especially centrally, and examining DRR possibilities.

The authors are maintaining and growing their contact network within the ministries and NGO community to aid NDMD in its lobbying for more authority and financial support. There is sometimes a lack of respect for the work of the NDMD staff by stakeholders and this can come across in meetings. The authors are ensuring that this is softened somewhat and focus is maintained with the major points being extracted from what can sometimes be a confrontational approach. This usually occurs as a debrief with NDMD managers after the meetings.

Theoretical Framework

Reflective Practice

There is a large amount of material written on reflective practice in the fields of nursing (health) and especially pedagogical processes (teaching). The seminal work comes from Schon (1983).

Schon (1983) made practitioners aware of the importance of their knowledge that they had gained over their involvement in projects and programs. He showed how thinking about what they had done (reflecting) would ensure that their processes were more relevant to the outcomes of their ongoing involvement their projects. His main concern was to facilitate the development of reflective practitioners rather than describe the process of reflection. He identified two types of reflection: reflection-on-action (after-the-event thinking) and reflection-in-action (thinking while doing)

Schon (1993) and Bleakley, (1999) make a valuable distinction between reflection-on-action and reflection-in-action. Reflection-on- action is retrospective—thinking about an event after it has happened. Reflection-in-action is an intuitive reflectivity

involving what has happened and what may happen, where thinking and doing coincide in a moment-to-moment adaptation.

Definitions of types of reflection

In the case of reflection-on-action, professionals are understood consciously to review, describe, analyse and evaluate their past practice with a view to gaining insight to improve future practice. With reflection-in-action, professionals are seen as examining their experiences and responses as they occur. In both types of reflection, professionals aim to connect with their feelings and attend to relevant theory. They seek to build new understandings to shape their action in the developing situation.

The thrust of this approach is learning through and from experience towards gaining new insights of self and/or practice (Boud et al 1985; Boyd and Fales, 1983; Mezirow, 1981, Jarvis, 1992). This often involved examining assumptions of everyday practice. It also tends to involve the individual practitioner in being self-aware and critically evaluating their own responses to practice situations. The point of this is to recapture practice experiences and think about them critically in order to gain new understandings and so improve future practice.

Given that the reflection for this paper is initially looking at events in the past, reflection on action, using a critical reflection format, is the appropriate approach. Reflection in action is technical problem solving within a broader context of reflective inquiry (Schon,1983).

Critical Reflection approach

There are four characteristics that distinguish critical reflection from other versions of reflection: (1) it is concern to question assumptions; (2) it is social rather than individual focus; (3) the particular attention it pays to the analysis of power relations; and (4) its pursuit of emancipation (Reynolds, 1998).

Reynolds argues that when managers critically reflect (rather than just reflect) they become aware of the wider environment in which they operate. They begin to grasp the social power exercised by their organisation through its networks and relationships.

Critical reflection is rather the constant returning to one's own understanding of the problem at hand. This is the process in which, as Schon (1983) describes it, one "may then find a way of integrating, or choosing among, the values at stake in the situation" (p.63).

Schon (1983) explains this non-linear process as being the ability to find new meaning in a situation, use that new meaning to reframe the question, and then further inquire into a situation to be able to understand better and possibly move to action. This "further inquiry" may be seen as the process spiraling onward through the processes of descriptive, comparative, or critical reflection, similar to action research (see below). Reflection rarely ends with a simple solution, but rather ends with material for further reflection, new questions, and improved understanding.

Valli (1990) says that critical reflection involves taking in the broader historical, socio-political, and moral context (in this case, of schooling).

Action research is an example of more reflection in action. This is not to say that action research is not a valid tool for reflection, but in the approach in this paper, the major emphasis is on review and reflection over time, rather than immediate action related outcomes. Having said that, the reflection phase of the cycle is similar, if not the same as that in the approaches already discussed. Sanford (in Reason and Rowan, 1981) describes action research as a process of analysis, fact-finding, conceptualization, planning, execution, and then more fact finding or evaluation, all followed by a repetition of the same pattern

Action research was built upon the traditional scientific paradigm of experimental manipulation and observation of effects (Clark, 1976). A change is made, and the results are studied in order to inform future change efforts

Another difference between traditional and action research lies in their approaches to action. While the former collects or establishes information for the purpose of learning and usually ends with the point of discovery, the latter intends to use any information to guide new behaviour. Chein, Cook and Harding (1948) contend that action researchers differ from scientists in that they must not only make discoveries, but must also ensure that those discoveries are properly applied.

Action research consists of a team of practitioners, who cycle through a spiral of steps including planning, action, and evaluating the result of action, continually monitoring the activity of each step in order to adjust as needed (Kemmis and McTaggart, 1988). The cyclical nature of action research recognizes the need for action plans to be flexible and responsive to the environment. Kemmis and McTaggart note that `Lewin's deliberate overlapping of action and reflection was designed to allow changes in plans for action as people learned from their own experience' (p. 8), that is through reflection.
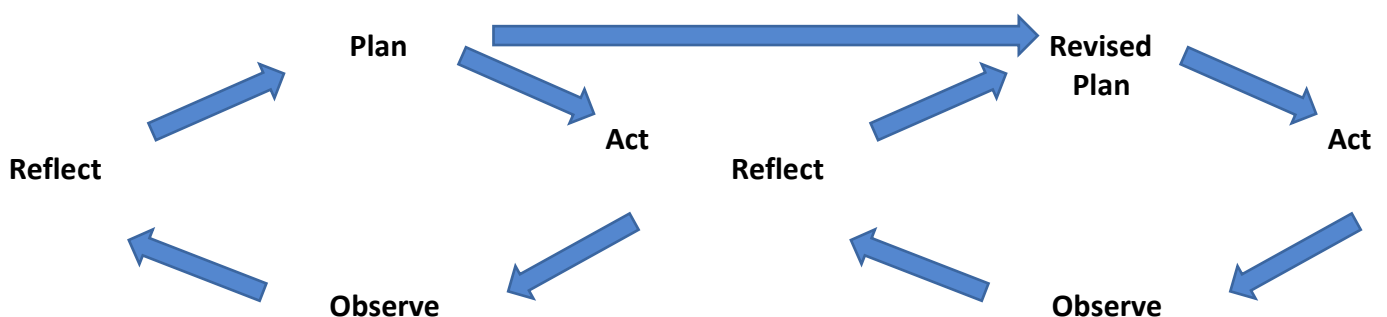

Figure 1

(Adapted from Kemmis and McTaggart (1988))

'The research element of action research requires people to observe and monitor their actions and then reflect on them' (McNiff and Whitehead, 2008, p.288)

Eby (2000) incorporates this critical reflection in his diagram (figure 2). He breaks it into three sections that overlap to form a reflective practice. For his paper, the important sections are critical thinking and reflection.

Self-awareness
Roots: phenomenology
- The cognitive ability to think, feel, sense and know through intuition
- To evaluate the knowledge derived through self-awareness to develop understanding

Reflection
Roots: existential phenomenology and critical theory
-interpretive and critical theory
- tool for promoting self- and social awareness and social action
- improving self-expression, learning and co-operation
- links theory and practice

Reflective Practice

Critical thinking
Roots: scepticism and critical theory
- identifying and challenging assumptions
- challenging the importance of context
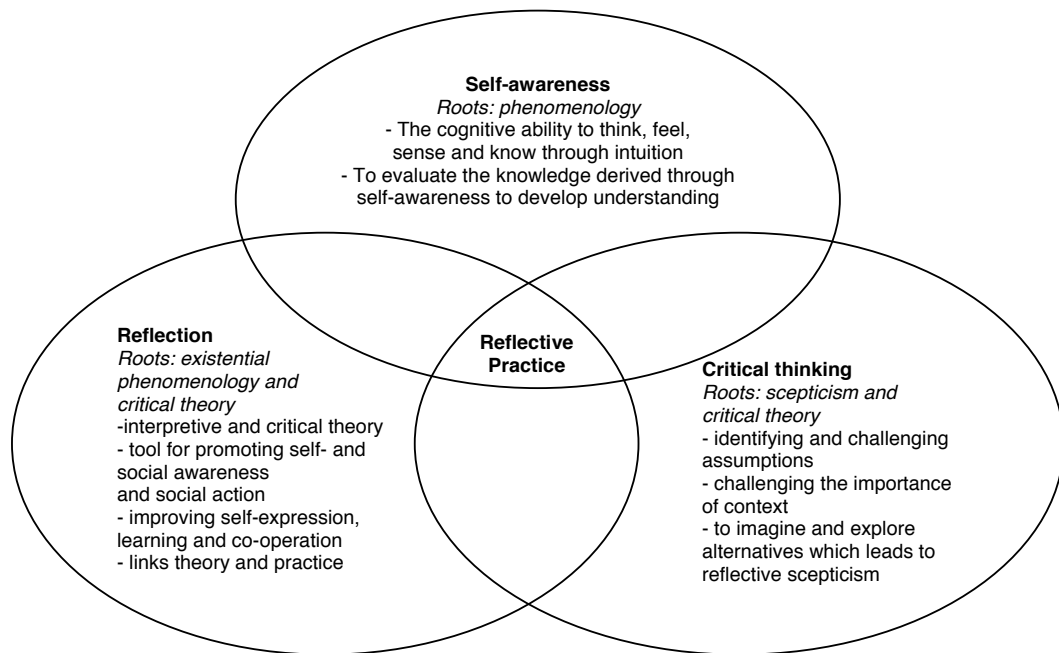- to imagine and explore alternatives which leads to reflective scepticism

Figure 1 Skills underpinning the concept of reflective practice.

Figure 2 (from Elby, 2000)

Questions

Schon (1983) argues that true practitioners in any discipline – 'reflective practitioners' – have a professional duty to be continually questioning and critical.

Thinking critically about the system leads to identifying options for change which leads to 'disruption' (Christensen and Raynor, 2013). Their discussion is about innovation and growth. What they are talking about is the conditions for step change, and the necessity for step change to allow innovation and progress.

. Gibbs (1988) posed a number of questions for the process of his model (figure).

Description
What happened?

Action Plan
If it arose again what would you do?

Feelings
What were you thinking and feeling?

Gibbs
Model for Reflection

Conclusion
What else could you have done?

Evaluation
What was good and bad about the experience?
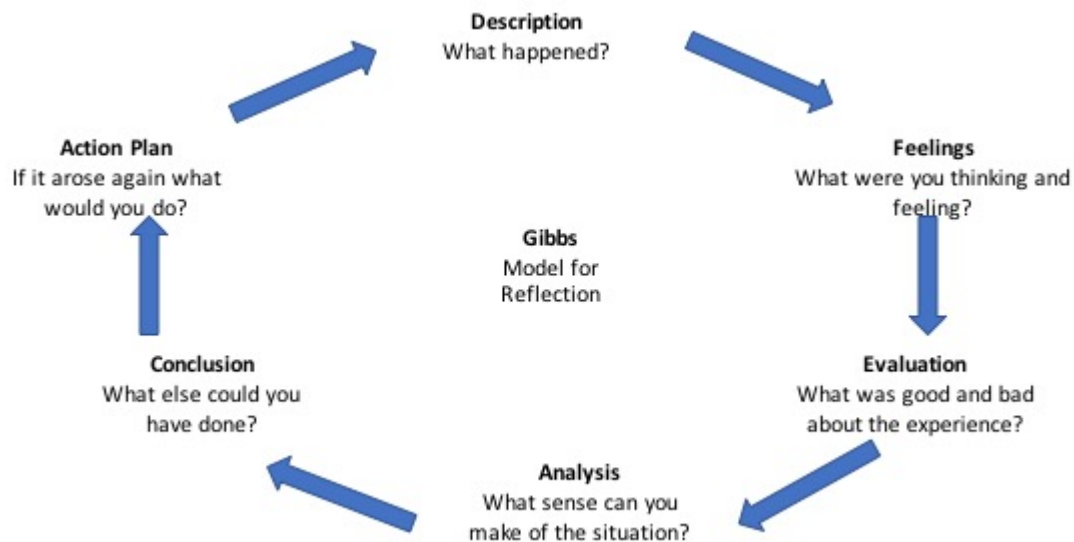
Analysis
What sense can you make of the situation?

Figure 3 (Adapted from Gibbs, 1988)

Further examples of questions, incorporating values of the reflector, that can be used in this reflection are shown below in table 1 (Joelle et al (2002))

Dimension	Definition	Typical Questions
Descriptive	Describe the matter for reflection	What is happening? Is this working and for whom? For whom is it not working? How do I know? What am I pleased and/or concerned about? What do I not understand? Does this relate to any of our stated goals and to what extent are they being met?
Comparative	Reframe the matter for reflection in light of alternative views, others' perspectives, research, etc	What are alternative views of what is happening? How do other people who are directly or indirectly involved describe and explain what is happening? What does the research contribute to an understanding of this matter? How can I improve what is not working? If there is a goal what are some other ways of achieving it? How do other people accomplish this goal? For each perspective and alternative, who is served and who is not?
Critical	Establish a renewed perspective based on implications of the matter	What are the implications of the matter when viewed from these alternative perspectives? Given these various alternatives, their implications and my own morals and ethics, which best for this particular matter? What is the deeper meaning of what is happening? What does this matter reveal about the moral and political dimensions of the organization/project? How does this reflective process inform and renew my perspective?

Table 1 (adapted from Joelle et al (2002))

In order to reflect on past practice in a meaningful way, appropriate questions that guide this reflection need to be asked.

Critical thinking is about more than action and disruption; it depends on the duo of action and reflection. Kolb (1984) enshrined this idea in his 'learning cycle' model. At its simplest it is learning by doing, with the key step of questioning what you have done and using that questioning to do it better, differently or even not at all (Kolb 1984).
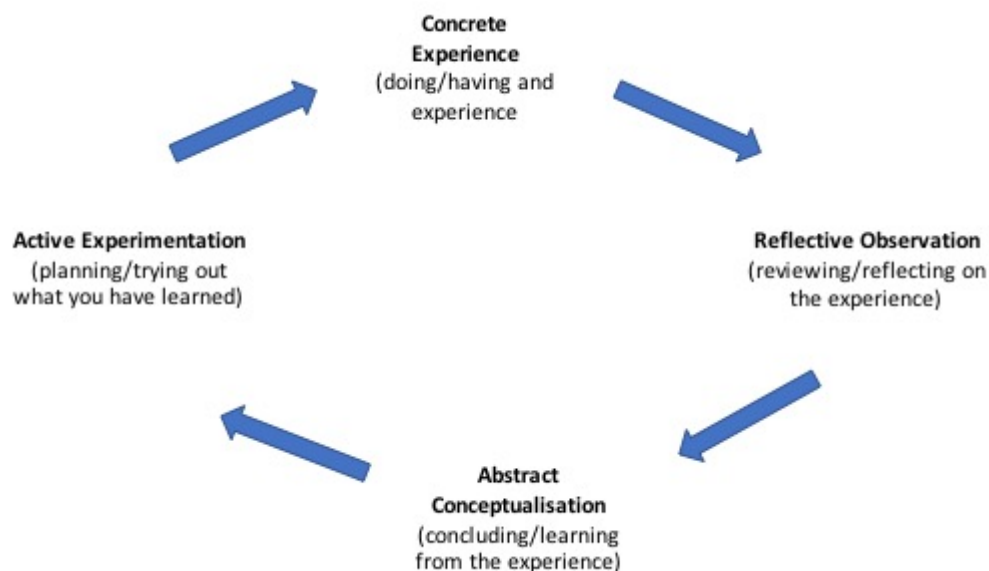

Figure 4 (Adapted from Kolb, 1984)

1. **Concrete Experience**- (a new experience of situation is encountered, or a reinterpretation of existing experience).
2. **Reflective Observation**(of the new experience. Of particular importance are any inconsistencies between experience and understanding).
3. **Abstract Conceptualization**(Reflection gives rise to a new idea, or a modification of an existing abstract concept).
4. **Active Experimentation**(the learner applies them to the world around them to see what results).

The Experiential Learning Cycle
(Kolb,1984 and Borton,1970)

Questions from the cycle:

–What? Report the facts and events of an experience, objectively.
–So What? Analyze the experience.
–Now What? Consider the future impact of the experience on you and the community.

Examples of Reflection Questions

What?
—What happened?
—What did you observe?
—What issue is being addressed or population is being served?

So What?
—Did you learn a new skill or clarify an interest?
—Did you hear, smell, or feel anything that surprised you?
—How is your experience different from what you expected?
—What impacts the way you view the situation/experience? (What lens are you viewing from?)
—What did you like/dislike about the experience?
—What did you learn about the people/community?
—What are some of the pressing needs/issues in the community?
—How does this project address those needs?

Now What?
—What seem to be the root causes of the issue addressed?
—What other work is currently happening to address the issue?
—What learning occurred for you in this experience?
—How can you apply this learning?
—What would you like to learn more about, related to this project or issue?
—What follow-up is needed to address any challenges or difficulties?
—What information can you share with your peers or the community?
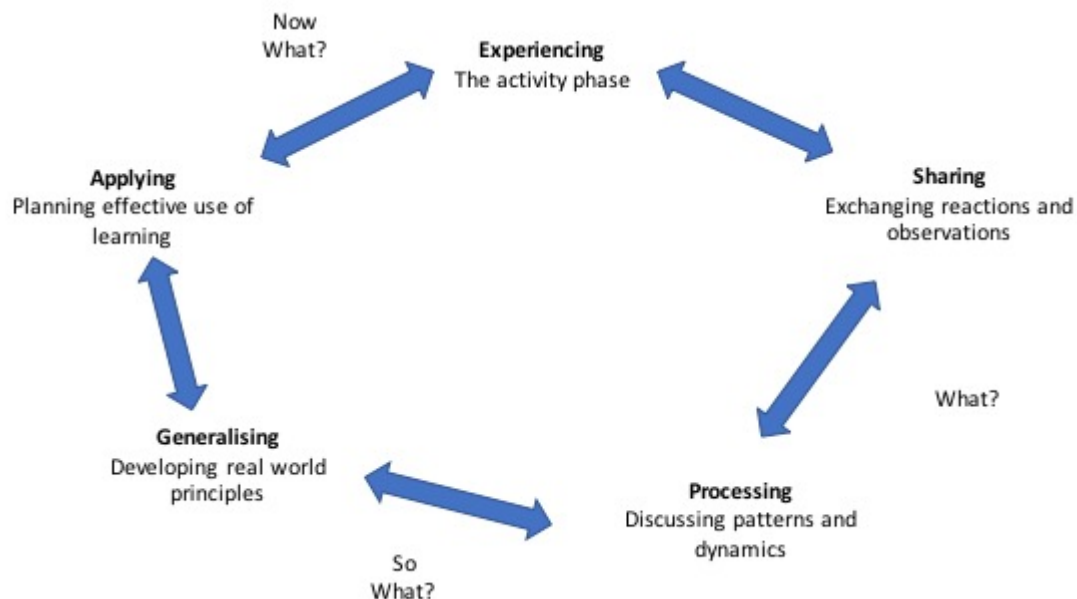—If you could do the project again, what would you do differently?

Figure 5 (Adapted from Borton and Kolb (combined))

The Four Cs of Reflection
(Eyler and Giles,1996)

Effective strategies for fostering reflection are based on four core elements of reflection known as *the Four Cs*.* These elements are described below:

Continuous reflection: Reflection should be an ongoing component in the learner's education, happening before, during, and after an experience.

Connected reflection: Link the "service" in the community with the structured "learning" in the classroom. Without structured reflection, students may fail to bridge the gap between the concrete service experience and the abstract issues discussed in class.

Challenging reflection: Instructors should be prepared to pose questions and ideas that are unfamiliar or even uncomfortable for consideration by the learner in a respectful atmosphere.

Contextualized reflection: Ensures that the reflection activities or topics are appropriate and meaningful in relation to the experiences of the students.

Bortons' (1970) framework

This reflective model is very simple and often used as the first step on the ladder of the reflective practitioner. This model encompasses three simple questions to be asked of the experience or activity to be reflected on, what? So what? Now what? Jasper (2003) Endorses the use of this model by novice practitioners and students as this model allows novices to reflect in the "real world of practice" (Jasper 2003, p99), therefore allowing novices to be analytical of their developing practice.
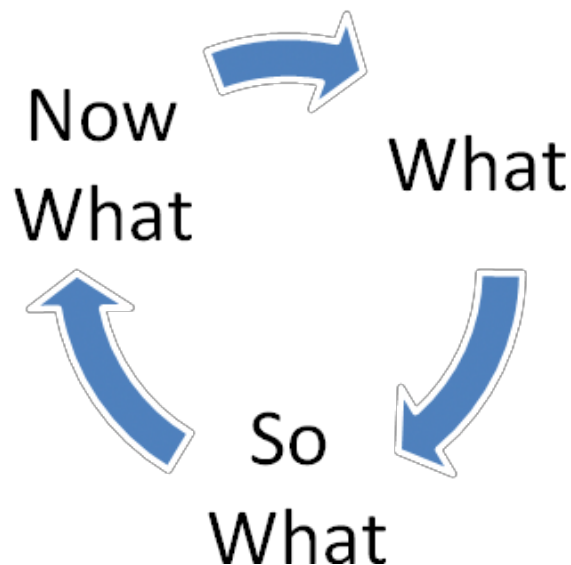

Figure 6 (Adapted from Jasper (2003))

What?	So What?	Now What?
This is the description and self-awareness level and all questions start with the word 'what?'	This is the level of analysis and evaluation when we look deeper at what was behind the experience	This is the level of synthesis. Here we build on the previous levels the questions to enable us to consider alternative courses of action and chose what we are going to do next
Examples: What happened? What did I do? What did the other do? What was I trying to achieve? What was good or bad about the experiences?	Examples: What is the importance of this? What more do I need to know about this? What have I learned about this?	Examples: What could I do? What do I need to do? What might I do? What might be the consequences of this action?

Table 2
(adapted from Borton's (1970))

The 5 Whys Method

(Kohfeldt and Langhout, (2012),

The Five Whys was developed by Sakichi Toyoda (Ohno, 1978) to identify the root causes of manufacturing and production problems. Educators and social scientists have adapted it to aid in the development of problem definitions and relevant interventions (e.g. Altman,et al, 1994; Hetzel, 1992). It involves transforming a problem into a 'why' question. Participants brainstorm five answers on the basis of their knowledge and experience. The most plausible answer is selected and turned into another 'why'.

This cycle repeats five times. Participants are encouraged to theorise the cause of problems in a way that avoids unsubstantiated assumptions, maintaining linkages to their lived experiences. The use of the Five Whys method thus requires careful facilitation by people skilled in the practice of critical questioning and reflection and who are adept at developing contexts where people feel comfortable sharing (Montero, 2009).

A methodological strength is the structured format for examining problems in a manner that concretely illustrates their multiple causes. It challenges the Western social scientific notion that problems are unidirectional, easily understood by simple cause and effect (Seidman & Rappaport, 1986).

The *exhaustion of the whys* approach is a technique that facilitators use to encourage people to identify, and at times even question, the mental models that influence their actions or interpretations of situations. Through a series of questions focused on uncovering why people do what they do, facilitators lead people to explain the reasoning behind their decisions, opinions or perceptions, and thus obtain a deeper understanding of the experiences or situations being discussed

Critical Moments Reflection Methodology

(McDowell, et al, 2005)

The objective in each of these activities and experiences is to create awareness in the practice of community development by enabling the practitioner to question and confront deep-rooted biases and assumptions about people or groups that influence outcomes for communities

The Critical Moments Reflection process traditionally consists of four steps:

1. *Setting the frame and the inquiry question*

2. *Naming of critical moment*

their 'critical events' that occurred throughout the set time frame. These critical events or moments are experiences, both positive and/or negative, that have been important in advancing or setting back people's work.

3. *Selection of critical moments to be analyzed*

4. *Lessons and Implications*

Johns' 1994 model

Core question: What information do I need access to in order to learn through this experience?   Johns (1994) uses what he calls 'cue questions' that guide the reflector in their introspective moments. For example, as part of the reflection on the experience he suggests that the user asks the following:

What was I trying to achieve?

Why did I intervene as I did?

What were the consequences of my actions for?

- myself?

- the patient/family?

- the people I work with?

How did I feel about this experience when it was happening?

How did the patient feel about it?

How do I know how the patient felt about it?

He goes on to look at the factors that influence the actions that were taken by asking questions such as, 'What internal factors influenced my decision-making? What external factors influenced my decision-making?' He concludes with looking at ways the operator could have dealt better with the incidents under question.

Model for Structured Reflection (adapted from Johns, 2006)

Reflective cue Link with Carper's ways of knowing Bring the mind home Personal Focus on a description of an experience that seems significant in some way What issues are significant to pay attention to? Aesthetics How are people feeling, and why do they felt that way? (empathic inquiry) How was I feeling, and what made me feel that way? Personal

What was I trying to achieve, and did I respond effectively? What were consequences of my actions on the patient, others and myself? What factors influence the way I was/am feeling, thinking and responding to this situation?

What knowledge informed me or might have informed me? To what extent did I act for the best and in tune with my values? How does this situation connect with previous experiences? How might I respond more effectively given this situation again? What would be the consequences of alternative actions for the patient, others and myself? What factors might constrain my responding in new ways? Personal How do I NOW feel about this experience? Personal Am I better able to support myself and others as a consequence? Reflexivity What insights have I gained through this reflection?