

Chapter 7

Integrated environmental research: platforms for dialogue and reflection

Case Four: The Watershed Talk project

They were nothing more than people by themselves...But all together, they had become the heart and muscles and mind of something perilous and new, something strange and growing and great. Together, all together, they were instruments of change.

Keri Hulme, *The Bone People*

7.1 Introduction

This is the second of the two case stories based on the ICM Mouteka programme. As outlined in Chapter 6 the social learning capacity building work in the ICM programme centred on two areas of effort: (i) the development of frameworks for assessing and understanding the social processes of the ICM programme, and (ii) the trialling of platforms for dialogue, reflection and systems thinking. The first of these was discussed in Chapter 6, using the example of the Social Spaces Framework, and the second is reviewed here.

The ICM programme's ambitions as an engaged research endeavour relied on the creation of opportunities (or platforms) to enable multi-stakeholder dialogue, exchange and analysis of information, and collective problem solving. Furthermore, the transdisciplinary orientation of the programme specifically requires platforms that foster collaborative interpretation of both science- and non-science-generated information. The knowledge and skills to create such platforms are a fundamental part of the ICM programme's social learning capacity.

In this chapter I examine the experience of one particular sub-project in the ICM programme – Watershed Talk – which developed, implemented and evaluated a method for promoting the collective capacity of a diverse group of individuals to unpack and understand local environmental management problems. Importantly, the previous cases have described programmes where evaluation approaches have been used to introduce reflection

and formative learning in a number of spheres, i.e. to scope the problem situation, support programme management, improve capacity in the programme to enquire and problem solve, or aid research and programme development. In these programmes the evaluation has often been the only structured means of inquiry. In contrast the Watershed Talk project was designed to promote different levels of individual and group reflection, and the formal steps and techniques of P & D evaluation were fully embedded in the project as a fundamental means of delivering on the project's objectives, making the overall methodology for Watershed Talk grounded in P & D evaluation.

Another significant feature of the Watershed Talk project was its timing in relation to this thesis. Starting late in 2006 this project was an opportunity to test evolving ideas about social learning as a concept, and how to build social learning capacity in environmental management programmes. In particular Watershed Talk was set up to examine ways to address some of the key challenges of operationalising social learning identified by theorists and practitioners elsewhere (summarised in Chapter 2 section 2.3.1). The Watershed Talk project was also accompanied by rigorous debate and reflection among the project team and in this way represents the fifth action-research cycle in this thesis (see Chapter 1, Figure 1.2).

This chapter begins with an overview of the Watershed Talk project, and how it was intended to contribute to the ICM programme's social learning capacity needs. It then outlines the particular challenges of practice in social learning examined by the project. Subsequent sections review the design and implementation of Watershed Talk, and the outcomes. It follows with some observations on the strengths and limitations of the approach used in Watershed Talk, and its contribution to the social learning capacity of the ICM programme. The final section makes some observations on the shifts in practice and views around social learning during the length of the ICM programme, as a conclusion to the overall ICM programme case story.

7.2 Overview of the Watershed Talk project

Watershed Talk was an action-research sub-project within the ICM research programme, which ran from October 2006 to July 2007 (see summary Box 7.1).

Box 7.1 Watershed Talk: a platform for dialogue, reflection and systems thinking

Location: Mouteka Catchment , Nelson region

Duration: October 2006 – July 2007

Synopsis: Watershed Talk was an action-research sub-project within the ICM programme which trialled a platform for multi-stakeholder dialogue, and collaborative learning, meeting needs of the ICM programme for capacity development in this area. The premise to the project was that ways in which conversations are conducted around complex environmental issues can have consequences for the ongoing capacity of communities to adapt and respond to local concerns.

The platform rested on six core principles (respect, diversity, empowerment, reflection, generosity, and active cultivation). These principles were used to guide platform conception and implementation across the project phases of engagement, conversation, evaluation and feedback. Innovative techniques were employed to address common challenges of multi-stakeholder platforms such as addressing unequal power and voice, and adherence to a priori problem definitions. Over 8 months, 18 people from widely different backgrounds local to the Motueka Valley, or with strong local connections, took part in Watershed Talk. Participation involved individual interviews, take-home tasks, and attendance of two group meetings.

Evaluation activity: The previous cases describe programmes where evaluation approaches have been used to introduce reflection and formative learning in a number of spheres. In these programmes the evaluation has often been the only structured means of inquiry. In contrast the Watershed Talk project was designed to promote different levels of individual and group reflection, and methods of evaluation were fully embedded in the project as a fundamental means of delivering the project objectives. The evaluation methods used frequently had multiple purposes. For instance the individual interviews at the start and end of the project helped prepare participants for the meetings, and enabled them to reflect on their experiences. Also, the information from the interviews, coupled with feedback from a post-meeting questionnaire, were used to assess shifts in important social learning goals for the platform, i.e. shifts in content and process learning, and development of networks and relationships.

The outcomes of the project endorsed the idea that integration of P & D evaluation techniques into collaborative platforms for multi-stakeholder dialogue can support the capacity of groups to build both content and process knowledge around complex problems. An arguable limitation of the project was its applicability to politically constrained resource management settings.

Current status: The story of Watershed Talk was published in January 2009 (Atkinson et al. 2009). Negotiations continued with TDC staff interested in utilising ideas from Watershed Talk in local environmental planning.

Role in project: I was one of three team members carrying out Watershed Talk, along with ICM programme leader Andrew Fenemor and Maggie Atkinson, a local Nelson artist with a specialist interest in community and landscape. My role was as a social researcher with an interest in practices of engagement and dialogue. I was also the principal facilitator for the meetings.

Sources for case story: Formal reports, Watershed Talk publication, project notes, reflections with Watershed Talk team; and feedback on the Watershed Talk publication.

Its purpose was to trial a platform for multi-stakeholder dialogue, information sharing and collaborative learning, meeting needs of the ICM programme for capacity development in this area. The team members carrying out the work included the ICM programme leader Andrew Fenemor, Maggie Atkinson, a local Nelson artist with a specialist interest in community and landscape, and myself as a social researcher with an interest in practices of engagement and dialogue (Atkinson et al. 2009).

Over 8 months, 18 people from widely different backgrounds local to the Motueka Valley, or with strong local connections, took part in Watershed Talk. The project had four phases: engagement, conversation, evaluation, and feedback (Figure 7.1). Each phase had a number of activities and a reflection component. Participants went through the entire project, taking part in the activities in each phase, including individual interviews, take-home tasks, and attendance of group meetings (see Figure 7.1).

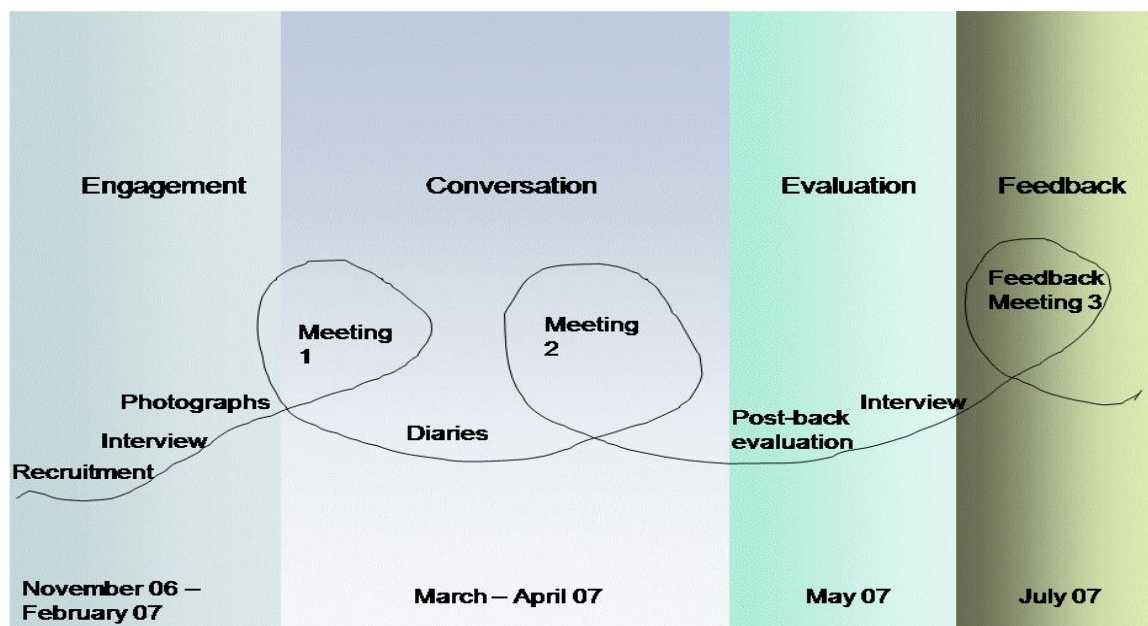


Figure 7.1 Phases and events of Watershed Talk

Platforms have both a physical and a process component. The former refers to the location and timing¹ of events and the latter refers to the way in which participants are engaged and conversation is facilitated. While it is common to consider platforms as single events, or groups (or even networks), in Watershed Talk all project phases were equally important to

¹ Timing of events includes both the time of day or season that events occur and their sequence alongside other influential activities – such as after those that build relationships, or occur before more formal proceedings.

establishing the conditions for dialogue and learning, not just the meetings which physically brought people together. Box 7.2 gives a summary of the phases and events in Watershed Talk.

Box 7.2 Phases and events of Watershed Talk
<p>Phase 1 Engagement: This phase of the project prepared the ground for individual participation and the capacity for dialogue at the meetings. Participants were actively recruited (rather than relying on self-selection). The pre-meeting time period was used to cultivate confidence and ability to take part.</p>
<p>Recruitment</p> <p>ICM programme contacts were asked to recommend participants who would bring diverse perspectives on the Motueka catchment, based on their different knowledge and experience. The project deliberately sought participants with particular qualities, including, being thoughtful, and good at sharing ideas in conversation as well as listening to others. Participants were not asked to represent an interest or a group, i.e. were not position-takers. Care went into contacting individuals, explaining the purpose of the project, the tasks that would be involved, and the likely time commitment. People were given an opportunity to withdraw from the project, (although only one did). The Travelling River exhibition catalogue (Atkinson et al. 2004) was offered as koha² to all who gave their time to assist in the recruitment phase. Two groups were formed of nine individuals each. Each group included one member who was a biophysical scientist undertaking research in the Motueka catchment and one member who worked in policy and planning for the TDC.</p>
<p>Pre-meeting interview</p> <p>Before the first meeting participants took part in an individual semi-structured interview lasting 1–2 hours (see Appendix 10) which asked them to reflect on their current views of how care and responsibility were manifest in the Motueka catchment. They considered their own knowledge and sources of information, their contacts, beliefs and values around the community and the Motueka environment. This was preparatory thinking for participants and provided baseline information for comparison in the final interview.</p>
<p>Pre-meeting task</p> <p>To assist conversation at the first meeting participants were asked to carry out a pre-meeting task. During their everyday activities in the catchment participants were asked to record, with a disposable camera, images that, to them, illustrated that <i>someone cares and is taking responsibility... or... No one is taking care and responsibility</i>. Participants could take up to 15 photographs, which were developed and returned to them. They then selected five images to talk about at the first meeting.</p>
<p>Phase 2 Conversation: Participants were placed in one of two groups which approximately coincided with their connections in the catchment. The venue for both groups and both meetings were the local community centres at Tapawera (upper reaches of the Motueka Catchment), and Ngatimoti (mid-catchment). The groups met twice at meetings held 2 weeks apart.</p>

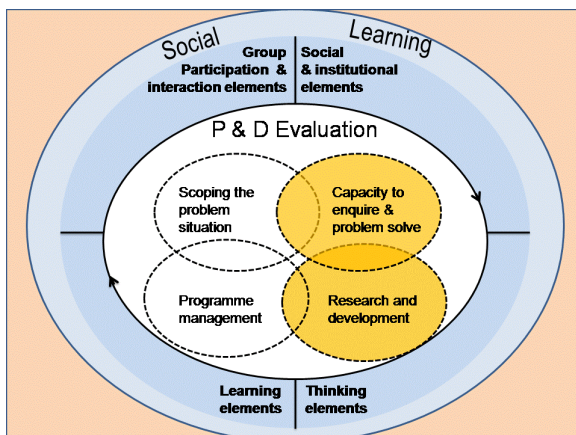
² Koha – Māori term meaning gift or appreciation.

<p>1st meeting. The purpose of the first meeting was to bring people together and open up the range of ideas about care and responsibility within the catchment. The overarching question was: <i>Is our catchment (the Motueka River) being cared for...and how do we recognise that?</i> The meeting was held in the evening, took 5 hours and there was a shared meal. It included: an icebreaker exercise; a presentation of participant's photographs; and discussion around the general themes of care for the catchment. It finished with outline of a take-home task; and the question for the next meeting.</p>
<p>2nd task – Diary: To provide continuity between meetings participants were asked to keep a diary of ideas, conversations and observations over the intervening 2 weeks. A prompt question was offered: <i>What is at the heart of building resilience (sustainability), and what are we going to do about it?</i> They were also asked to note any new concerns, new ways of thinking about an issue, creative opportunities, ways to work with others, or things they wanted to know more about.</p>
<p>2nd meeting: At the second meeting the groups looked closely at one issue, and considered how a community and/or individuals might respond. The topics were different for each group and reflected the emphasis that had been placed on these issues by participants during their first meeting. The Tapawera group discussed management of invasive weeds, and the Ngatimoti group discussed subdivision and changes in rural land use. The meeting was facilitated using techniques based on a soft-systems-methodology approach to complex problem solving (Checkland 1999). It included (i) expanding a problem from its original definition to identify and challenge underpinning assumptions, and make links to other parts of the problem system; and (ii) back-casting, i.e. asking participants to explore what the resolution to a problem might look like, then comparing this with current conditions, and considering what steps or options could link the current situation to the ideal.</p>
<p>Phase 3 Evaluation: Activities in this phase were aimed at learning about the strengths and limitations of the Watershed Talk platform, and any shifts in participants' thinking around care and responsibility in the catchment. The evaluations also promoted participants' own reflection.</p>
<p>Post-back evaluation: At the end of the second meeting participants were given a set of questions about the processes used during the two meetings to complete and return by post (Appendix 12); 15 out of the 18 participants returned the form.</p>
<p>2nd interview: A second, semi-structured interview was held with individuals approximately 3weeks after the last group meeting (Appendix 11). This interview returned to issues discussed in the first interview and asked participants to reflect on any shifts in their views following taking part in Watershed Talk. This also provided a further opportunity for participants to reflect on their experience in the project.</p>
<p>Phase 4 Feedback: Initially feedback was intended to be via circulation of a summary of the project to all participants. However, participants expressed an interest in a joint meeting. This took place at the Ngati Moti community hall in July 2007. Members of both groups attended and a potluck meal was shared. A presentation was given on the preliminary results, and a discussion was held on the implications of being involved in such a project. All images taken as part of the project were on display and participants nominated those they would like to see in the final publication. A full copy of the final publication was later sent to all participants.</p>

There were three important contextual elements which shaped the development of the Watershed Talk project: (i) the specific needs of the ICM programme; (ii) prior experiences of platforms for dialogue and learning in the ICM programme; and (iii) the previous experiences of the Watershed Talk project team.

7.2.1 ICM programme needs

As a research programme with ambitions to contribute to real-time complex catchment management issues, the ICM programme faced a number of social learning challenges (Chapter 6, section 6.3). Particularly it needed some capacity to facilitate multi-party critical reflection around diverse sources of knowledge about the Motueka catchment. This meant integrating science and non-science knowledge, and assembling and interpreting data at a system-wide scale. Thus the design of platforms for multi-stakeholder dialogue and learning was an important element in the ICM programme. Furthermore, since there were no blueprints for how this should take place, this required not only development of capacity,



but also research into different kinds of approaches, and their relative merits. Using the framework of intersection between evaluation and social learning (see Figure 3.3 repeated here), the Watershed Talk project therefore contributed to the ICM programme's **capacity to enquire and problem solve**, and undertook **research** into the viability of particular methods for

supporting multi-party dialogue.

Another important aspect of the social learning capacity of the ICM programme was the relationship between the programme and the local environmental management agencies. Hitherto the ICM programme had made little ground in negotiating with TDC for an opportunity to integrate experimental and adaptive approaches to addressing environmental problems with ongoing management activities. The Watershed Talk project was consequently set up to operate outside regular resource management arrangements (but with TDC staff involvement). The hope was that this would provide a chance to both investigate and model new approaches to working with communities around complex environmental problem solving. However, it also ran the risk of Watershed Talk being regarded as 'nice

but irrelevant' when set alongside the constraints of what one TDC staff member referred to as the 'real world' resource management context.

7.2.2 Platforms for dialogue and learning in the ICM programme

Platforms for active dialogue between those with different interests and ways of seeing the Mouteka catchment had been trialled throughout the ICM programme. In each instance there was a point of difference and purpose which shaped the physical and process components (see Box 6.3). Examples include the Community Reference Group and the Sediment Learning Group. The Community group was set up with participants that reflected a diversity of interests and knowledge about the catchment. The intention was that the group become a constructive yet low risk space where researchers could develop new skills in presenting and discussing their work, and develop a better understanding of the problem context in which their research was situated. The Sediment group, in contrast, was a group of selected experts (practitioners and researchers), that met over 18 months to generate a shared system-wide understanding of sediment management in the catchment.

Both previous examples contrast with the River Gravel workshop, which was a single-day event focused on bringing together views on a specific and longstanding resource management problem – the extraction of river gravels from the Motueka River and its tributaries. However, although the workshop itself took place over one day, it was positioned in a continuum of relationship-building events over several years that enabled a more frank exchange of views than would normally be possible.

Watershed Talk borrowed something from each of these platform experiences with the ICM programme. Participants in Watershed Talk, like those in the Community Reference Group, were not selected as representatives of particular interests but were those who would bring different perspectives as scientists, artists, tangata whenua, farmers, policymakers, long-term residents or newcomers to the community. Watershed Talk also used workshop events, and developed specific facilitation devices designed to short-cut the trust-building necessary to enable open discussion. As with the Sediment group, facilitation of the workshops promoted system wide understanding rather than resting with a priori definitions of problems and their boundaries.

7.2.3 Previous experience of the Watershed Talk team

The three team members of Watershed Talk had worked together previously on the arts³ collaboration project Mountains to Sea which created the Travelling River exhibition (Atkinson et al. 2004; Kilvington & Horn 2006). The genesis for Watershed Talk came out of this experience. In particular, questions had arisen about whether the range of ideas on well-being, and the sometimes even seemingly opposed notions of care for the catchment environment, expressed by different people through the exhibition could be reconciled, or, even further, be used to facilitate learning, action and change in communities. As a team we were interested in a project that would start from the premise that such values existed, and were diverse in their expression, and the challenge was to use these as a basis for growing community capacity to tackle concerns. We also wanted to learn how much could be gained from establishing platforms for dialogue-and-learning that were not foremost about addressing a particular issue but on fostering the ability for meaningful conversation and problem solving.

Finally, the project team wanted Watershed Talk to leave a legacy with participants – specifically a shift in their individual capability and collective capacity for learning, problem solving, and action. In their work on cooperative inquiry Heron and Reason (2001) make a distinction between transformative and informative inquiry culture in action-research. In informative-oriented inquiry, actions are chosen on the basis, firstly, of how much information they are likely to generate on the phenomena in question. In contrast, if the aim is to be transformative, actions are chosen for their likely impact and any information generated about this is a secondary output. The culture of inquiry at the heart of Watershed Talk was primarily transformative, and the action elements were aimed at creating opportunity for dialogue and learning. These included who was engaged as participants in the project, how they were brought together, and what processes were used to generate good dialogue. The reflection or evaluation elements were opportunities to observe shifts and changes (i.e. be informative), and to critique the effectiveness of the actions. However, the location of evaluation as critical to the project was not merely to ensure the learning of the project team, but was recognition that processes of reflection play a pivotal role in cementing observations and new learning. Thus reflection by the participants was

³ Artsci is a common abbreviation for projects which unite artists and scientists.

supported at every phase of the project (see Figure 6.1), through the initial interviews, the photographic pre-meeting task, diary exercise, post-back evaluation, and final interview.

7.3 Addressing social learning challenges in Watershed Talk

The Watershed Talk project incorporated central theoretical elements of social learning, and explored some of the challenges to the practical application of social learning already noted elsewhere (Chapter 2 section 2.3.1). Many of these challenges are common to all multi-party deliberations such as managing differential degrees of power and influence. Others are more specific to social learning, such as flexibility in administrative systems to enable more experimental and adaptive approaches to planning and decision-making. Given the breadth of the social learning concept it was important to bound the project as being about ‘improving the social learning capacity of the situation’ and to make some specific choices around which aspects of the inherent social learning potential were most amenable to improvement. Consequently Watershed Talk concentrated on three particular issues: (i) dealing with barriers to learning, (ii) addressing ‘too early’ and a priori problem definition, and (iii) managing an open-ended dialogue process.

Firstly, in the practice of implementing social-learning-oriented initiatives, a number of authors had observed barriers to learning. These include inability to motivate learning in non-crisis situations and, somewhat ironically, successful learning of the ‘single loop’ variety which can result in a reluctance to look at more fundamental aspects of a situation. Learning barriers are also intimately related to issues of power and confidence. In group settings it is a well-observed phenomenon that existing power dynamics influence the dominance or otherwise of particular voices. However, of equal importance can be assumptions by participants about what knowledge is valid and, consequently, who is most readily believed. An example of this is the tension between expert and non-expert. Where specific individuals or groups are regarded as experts, it can happen that other stakeholders attribute proficiency beyond the boundaries of the actual knowledge they hold, i.e. because they are acknowledged for their contribution in one area their opinion is preferentially valued in other areas. Similarly, the image a stakeholder has about their own capacities and roles (their auto-image) may differ significantly from that held by other stakeholders, and may result in self-limitation of a participant’s possible contribution (Craps 2003).

This phenomenon is particularly important in the context of Watershed Talk, as the intention was to design a platform that could inform the practice of transdisciplinary research which rests on the successful integration of science- and non-science-derived knowledge about situations. Both groups in Watershed Talk had a participant who was a scientist working on environmental science questions in the catchment, and a participant who worked in planning and policy for the local government agency (TDC). Both scientists and local authority staff are commonly regarded (and often regard themselves) as experts. The challenge in a dialogue situation aimed at maximising the potential contribution from a variety of sources is to apportion expertise more widely among the participants, and to counter the effect of preferential bias towards particular individuals.

Secondly, in collective problem-solving situations, there can be a tendency to leap to a solution without sufficient consideration of critical and influential elements. What may predicate this is the acceptance of a priori problem definitions. Problem statements issued by authoritative voices (such as agencies, NGO spokes-groups, and key political figures) can be among the most powerful assumptions underpinning complex problems (Tàbara & Pahl-Wostl 2007). A consequence of this is that while the need for multiple perspectives on issues is increasingly recognised, less acknowledged (and consequently less likely to be addressed) is the need for wider thinking to be employed prior to establishing the boundaries of a problem situation. Introducing systems thinking at the stage of problem definition in multi-party dialogue situations can be challenging, with participants feeling an understandable resistance to 'stepping backwards' and the sense of anti-progression that this phase of discussion can engender. Related to this is a third issue, important to developing Watershed Talk as a social learning platform: how to create a space for an open ended result (Bouwen & Taillieu 2004). This includes considering how the 'unexpected' can be accommodated in a multi-party dialogue situation while still meeting the very real need for participants to have a satisfactory sense of direction and purpose.

Finally, one of the recognised challenges for social learning is integration with existing decision-making institutional arrangements. The primary purpose of Watershed Talk was to generate an opportunity for good (even transformative) dialogue, and by operating independently of formal planning and environmental management structures the process was not bound by conventions that surround local government consultation exercises.

Nevertheless, the Watershed Talk project offered an opportunity to postulate distinctions in process between what was termed ‘resilience oriented approaches’ to collective problem solving, and approaches to engagement with public, sectors and interest groups conventionally employed in addressing local issues. These resilience-oriented approaches are those that have an intention to develop community capacity for learning and change through enhancing individual and social capital. Table 7.1 made a coarse comparison between conventional and resilience approaches to public deliberation. Making these comparisons from outside the constraints of formal processes may seem contrived; however, TDC staff who took part in Watershed Talk found the consequences of employing a different approach genuinely novel and expressed interest in the potential application in mainstream events.

Table 7.1 Traditional and resilience approaches to problem solving⁴

Challenges with traditional approaches to problem solving	What resilience approaches can offer
Reinforce existing power arrangements (loudest voice, most popular, most influential)	Look to different expressions of leadership in participants
Efficiency focused, e.g. one stakeholder representative	Abundance of ideas (generosity, profusion, wealth)
Favours a priori understanding of the problem	Problem revealed, reinterpreted by participants
Generates polarity of viewpoints	Respects and relies on diversity and fosters commonality
Often based on extraction of information for use by ‘official’ decision-makers	Important for all participants to be learning and participating in decision-making
Focused on reaching a decision	Interested in what goes on beyond decision, i.e. shifts in view, values, action
Unconscious learning about negative social interaction	Conscious what messages about social interaction are modelled

⁴ This table was compiled by me for the Watershed Talk public outreach document (Atkinson et al. 2009).

Summary of social learning challenges addressed in Watershed Talk

The Watershed Talk project was an opportunity to bring together diverse knowledge sources on local Motueka catchment issues. It was also a chance to develop a platform for dialogue, learning and systems thinking that had a clearly articulated theory of learning at its basis, and which was addressing specific social learning challenges, i.e. (i) barriers to learning, (ii) too early / a priori problem definition, (iii) managing open-ended processes.

The challenges of methodology for the project were to develop means to build trust and self-efficacy; mitigate the effect of preconceptions about roles, knowledge and contributions among participants; and introduce a systems thinking approach to addressing complex issues; all within a limited time frame (6 months) – as well as leave a legacy for participants of enhanced skills in collective problem-solving.

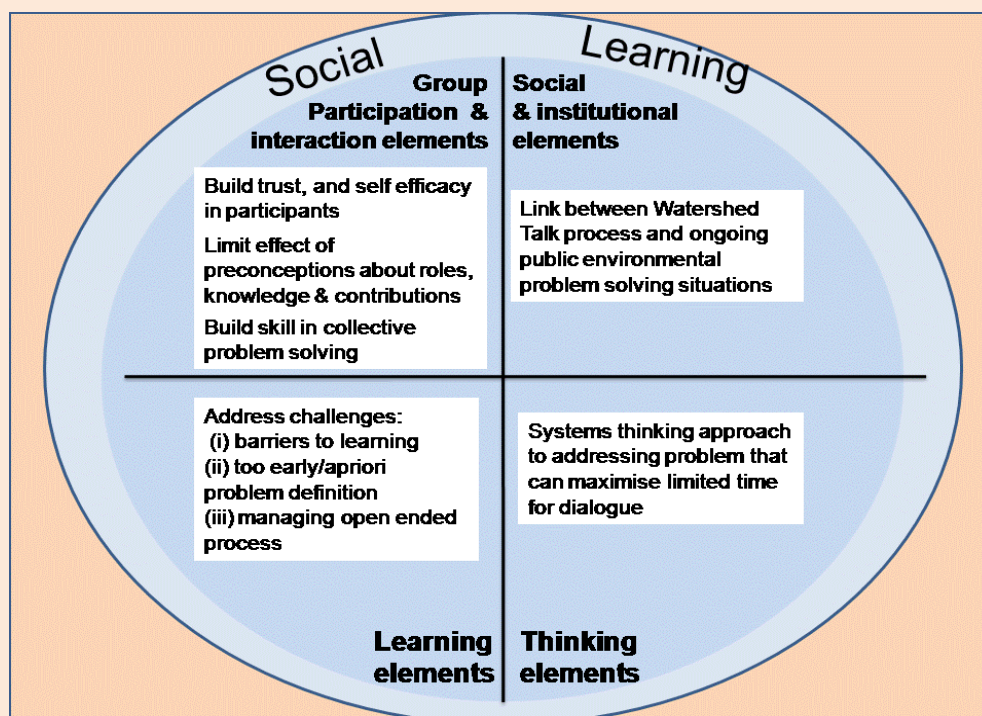


Figure 7.2 Aspects of social learning addressed in Watershed Talk

The Watershed Talk project was designed to meet and explore challenges across all four quadrants of Social Learning Framework (Chapter 2 Figure 7.2). However, its weakest contribution was its link with ongoing public environmental problem solving situations. By setting up the project to work outside the constraints of prescribed formats for public meeting and problem solving, Watershed talk was able to employ an approach to dialogue

about local issues that could circumvent predetermined problem definitions dictated by interests of management agencies. However, this exposed Watershed Talk to criticisms that it lacked realism since it did not have to deliver on political or social expectations.

7.4 Design of Watershed Talk

There are two features of the design of Watershed Talk it is useful to explore more fully: (i) the use of principle based design, and (ii) the integration of evaluation to support both learning and development for the project team and participants.

7.4.1 Design principles

With the previously discussed social learning challenges in mind, the design of Watershed talk was based on ideas that were well rehearsed in settings of community development, dialogue, conflict management and participatory action research. These included: affirmative questioning (derived from appreciate inquiry; Cooperrider & Srivastva 2001) and an approach to conversation termed ‘camping out’ where the tendency for ‘quick answers’ is deliberately constrained (derived from work on conflict resolution by Kahane 2004). Concepts from Checkland’s (1999) soft system’s methodology were employed in the problem scoping process in meeting two; and the idea that formal shared meals can support civil conversation was borrowed from the work of Cronin and Jackson (2004), who used this in their exploration of ways to promote dialogue on biotechnology in New Zealand.

The project team also decided on a set of core principles as a basis to the work practice. These were **respect, diversity, empowerment, reflection, generosity, and active cultivation**. Box 7.3 expands on these principles and their use in Watershed Talk.

Box 7.3 Core principles in Watershed Talk

Respect for the unique contribution and potential of all participants was an important guiding ethos for the Watershed Talk project team. This manifest as respect for views, and knowledge, as well as time and effort, and was expressed as much through the courtesy of how people were contacted, as in the active facilitation of meetings.

Diversity is a recognised factor for resilience and therefore an important ingredient in conversational approaches that are designed to contribute to community resilience outcomes (Walker & Salt 2006). In Watershed Talk this was reflected through the wide range of views, knowledge and standpoints of the invited participants, who included scientists, TD staff, landowners, artists, tangata whenua, teachers, hunters, people new to the district and those who had long family histories in the area.

Good conversations do not just happen and the Watershed Talk project considered ways of **empowering** participants with confidence in the value of their own contribution as well as creating good conditions for open discussion. Similarly, fostering **reflection** for individuals and groups can help reveal to them their own knowledge and enable them to reach beyond initial assumptions and ideas. Reflecting on what has been newly discovered (through evaluation) is also a way of reinforcing this new knowledge.

Finally, in Watershed Talk there was an interest in exploring how the idea of **generosity** could be used as a counter notion to scarcity which is commonly associated with resource management conversations. As one project participant observed: *Generosity – it is actually so easy to do something that will change the whole tenor of an interaction or situation.* Enacting these principles relies on **active cultivation**, and consistent reflection on the effect of actions, rather than adherence to formula.

7.4.2 Evaluation, learning and development in Watershed Talk

To address the informative intention of the project three mechanisms were employed: a post-meeting evaluation, project team reflection, and participant interviews. Firstly, post-back evaluation forms were completed by participants immediately after the second group meeting (Appendix 12). These forms asked participants to comment on and critique various aspects of the meeting events and encouraged participants to think through their experience and make some record of their observations, reinforcing this new knowledge. Secondly, as facilitators of the meetings Maggie Atkinson and I reviewed our observations after each session, noting comments and actions from participants that were illustrative of different

responses to the engagement and facilitation activities we had designed. In so doing we were conscious of the need to look for what was confirming, disconfirming or unexpected.

Thirdly, interviews were held with participants at the beginning of the project (Appendix 10) and again 2–3 weeks after the final meeting (Appendix 11). The interviews were semi-structured and conversational, but designed to reveal information that would help assess the value of the Watershed Talk project as a social learning platform. Specifically they were set up to assess shifts in participants' content knowledge (i.e. knowledge about the Motueka catchment) as well as learning receptiveness of the individual, knowledge of and trust in networks and resources; and knowledge and confidence in processes for collective reflection and problem solving. For instance, while participants were questioned on what they thought about the Motueka catchment and what was of concern to them (e.g. *I notice the low water levels over the last few summers – is the Motueka River drying out?*), the interview also explored how they built their knowledge about this, what networks and resources they used, what their capacity for collective problem-solving might be. These three areas of potential change for participants were derived from both social learning theory, and ideas about social capital and community resilience (Gunderson 1999; Walker & Salt 2006).

Looking for evidence of learning is methodologically challenging. In Watershed Talk we used the term 'learning receptiveness' to indicate the degree to which the person is open to or curious about building their knowledge. Further, our supposition is that awareness of the state of one's own knowledge is a precursor to shifts in learning receptiveness. Thus in Watershed Talk we chose a particular progression of awareness to indicate shifts in learning receptiveness: movement from I know what I know, to I know what I don't know, to I don't know what I don't know (see Box 7.4).

Box 7.4 Shifts in learning receptiveness

I know what I know – Being aware and confident in the knowledge that is already held is not the default position for people. What was observed through Watershed Talk was that there was varying degrees of trust and doubt expressed by participants about the content and level of their knowledge about the catchment, and in particular how relevant that knowledge might be to others. For instance one participant asserted that they believed their knowledge to be *better than some because I have lived here all my life*. In contrast another participant said that she considered her level of knowledge about the Motueka catchment to be *pathetic...don't know what the rocks are...don't know what else lives in the river apart from cockabullies and trout*. Another participant commented that their knowledge about the catchment was *50% historical...from living here about the place...reading local papers...talking with people*. Of these responses only one makes any comment on the actual nature of the knowledge they believe they hold (historical) and how they come to have this. The first comment is not about knowledge but rather a confidence expressed in the value of having a long history of connection with the catchment and the second respondent leaps immediately to areas of information she feels herself to be lacking.

Awareness of what a person has to offer to a collective problem-solving situation is important and for many participants in Watershed Talk the project served first to highlight knowledge that they had hitherto been unaware of. This led to increased confidence in their contribution.

I know what I don't know – Having formed some sense of the knowledge and potential contribution already held can be a platform for a more specific awareness of knowledge that is lacking. This goes beyond the generic 'I don't know anything' to a specified curiosity. For instance one participant observed: *I'd like to know how to go about changing many of the things we have talked about*, highlighting a need for knowledge about processes of influence and change in the community.

I don't know what I don't know – in this state of learning receptiveness we were looking for indicators not of abnegation but an opening to the possibility that there were important contributions and sources of knowledge that had not previously been thought of. For indicators of this we looked principally to expressions of surprise. The comment below made by a participant, reflecting on the Watershed Talk project, is an example of this.

It was the design that went further than my preconceptions, which were – a bunch of greenies sitting around expounding our philosophies and finding some common ground, but in fact we went further – it was more sophisticated than I thought it would be. Preconceptions can always be broken down and reassembled.

7.5 Watershed Talk in action

There are multiple strands to building an effective platform for social learning. This section looks at some specific elements in the phases of engagement and conversation (Figure 6.1) and how they addressed the specific methodological issues and social learning challenges outlined in Figure 6.2.

7.5.1 Engagement – building capacity for conversation

Engagement is the first phase of collective and participatory projects of all kinds. In Watershed Talk this stage was equally regarded as an opportunity to foster confidence and curiosity in participants as a matter of getting people around the table. In the first instance participants were specifically invited to take part and moreover were nominated by others in their community. This had implications for both their willingness and self-assurance in doing so. As one participant commented: *I chose to be part because of the selection process – was impressed someone had nominated me*. The agency of the person involved in the recruitment (in Watershed Talk this role was done by Maggie Atkinson) can also be a powerful influence on the preparedness of participants. Through her commitment to the principle of respect Maggie Atkinson was able to convey a high degree of value for an individual's contribution and to cultivate enthusiasm, and a sense of reciprocity and generosity among participants.

Secondly, the initial interviews asked people to identify and reflect on their personal connection with the catchment and their thoughts about how they, and others, were expressing care and responsibility towards it. This was the first opportunity in the project for people to consider what **did** they actually know about their home environment, both positive and negative. This process of reflection on views and knowledge already held (although not always consciously) was further supported by the pre-meeting photographic exercise where participants recorded images with a disposable camera, in response to the prompts:

'someone cares and is taking responsibility' and *'no one is taking care and responsibility'*.

The idea for the photograph exercise derived from work in the Travelling River project and from conversations with the landscape ecologist Joan Nassauer during her visit to the region in 2006. The concept was novel and proved effective in several ways. In the first instance, the purposeful taking of photographs of everyday scenes required participants to look more

closely and to make conscious judgements about what they saw, e.g. *I like this; this is bad; this is useful; this is puzzling*. Furthermore, the photographs themselves provided participants with a pre-prepared starting point for talking at the first meeting, which gave them confidence and a sense of their own authority on the catchment.

The use of creative arts to facilitate individual and group learning and communication has some precedence in participatory community development (e.g. Lykes 2001). Nemes et al. (2007, p. 9) have even presented an interesting case for the use of collaborative video in participatory evaluation, arguing that *participatory video enables self expression, and can bypass some of the formal institutionalisations of knowledge that prevent the expression of participant's needs and thinking*; They rest their claim on what they contend is the *inherent visual literacy* of participants (ibid.). Hayward (2000, p. 266), also makes a link between the creative arts and social learning in environmental policy and planning through her discussion of the notion of 'talk-plus':

...inclusive deliberation and social learning requires more than an opportunity to participate through critical argument. The conditions of talk-plus require that a variety of deliberative techniques such as visualisation, story-telling, discursive media and community activities are required to encourage social learning.

The act of taking images to both crystallise and convey ideas, also corresponds to Heron and Reason's (2001, p. 183) construct of *presentational knowing*. In their work on cooperative inquiry Heron and Reason identify what they term a *radical epistemology* of four different ways of knowing: (i) *experiential knowing* – through direct face to face encounter; (ii) *presentational knowing* – which articulates the meaning and significance of experiential knowing through expressive forms of imagery such as painting, sculpture, poetry, or music; (iii) *propositional knowing* – which emerges through ideas and theories and is communicated through informative statements; and (iv) *practical knowing* – which is knowing 'how to do something' and is conveyed via a skill, or competence. Heron and Reason (ibid., p. 183) go on to argue for the need to take all forms of knowing into account in cooperative inquiry:

In co-operative inquiry we say that knowing will be more valid if these four ways of knowing are congruent with each other: if knowing is grounded in our experience, expressed through stories and images, understood through theories which make sense to us and expressed in worthwhile action in our lives.

In Watershed Talk the pre-meeting interview and the photography exercise helped reveal to participants' their sense of connectivity with their environment. They also enabled participants to build clarity and gain confidence to introduce both themselves and their ideas to a group of mostly strangers: As one Watershed Talk participant commented:

I found the pre-meeting tasks very useful and thought provoking – gave you a chance to show how you felt – and with time to organise rather than being put on the spot.

7.5.2 Creative conversation

In Watershed Talk the characteristics of a good learning environment (see Chapter 6 section 6.5.2) were regarded as emergent properties, manifest not just from static arrangements established at the outset of the project but from facilitative activities that progress the conversation from moment to moment. Paying attention to both the physical and process aspects of the dialogue platform is important, and specific leverage points for building the conversational opportunity of Watershed Talk included: (i) who was taking part; (ii) the venue and climate; and (iii) particular facilitative devices that: build trust between participants (and the research team), create equal opportunity for contribution to discussion, and foster confidence in the comparatively slow process of revealing and developing understanding.

Participant profile – who took part

A result of the deliberate recruitment of participants in Watershed Talk was a high degree of diversity in interest, experience and history with the catchment. Furthermore, by relying on recommendations the recruitment process also revealed some of the values commonly respected in others such as a quiet leadership or respected knowledge, that can be overlooked in processes that rely on volunteers or use familiar figures as representatives of a 'community view'. This ability to direct participation through Watershed Talk could be considered a luxury. However, participants of Watershed Talk themselves observed that a deterrent to their involvement in conventional public processes was the tendency for these to attract the same people, who are confident (even dogmatic) in expressing their views and over time have developed a rigidity in their approach to solving problems. As one

Watershed Talk participant observed:

At the moment they [TDC] only hear from people motivated enough to come in to them – writing or coming in – often business sector – someone with a bee-in-their-bonnet. Would be nice to meet the ordinary people...

Participants also valued being invited for themselves and not for their representation of any interest, or sector, or for their symbolic importance. This enabled them to be more intuitively responsive in the conversation, able to shift and change rather than hold on to positions.

Venue and climate

Watershed Talk drew on Kahane's (2004) 'camping out' methodology of running a discussion, i.e. fostering the willingness to sit with a degree of uncertainty about the direction of conversation. Such willingness can be enhanced by the theatre of the engagement. In Watershed Talk this included using a venue that was communal, familiar and non-institutional; and sharing a catered meal. Cronin and Jackson (2004) used the process of a formal shared meal to disrupt confrontational dynamics between would-be protagonists in the biotechnology debate. Watershed Talk similarly explored the potential for this to create an atmosphere of gratitude (the prepared meal expressed appreciation for effort and time) and to expedite familiarity and ease between participants. The following comment by a participant illustrates how this was experienced:

Creating a neutral forum, or a space within a more formal space which can act like pushing a refresh button...like you can't be killing someone if you are busy sharing food with them!

From discussion with the participants in Watershed Talk, including the local government staff members, it appears that the relationship between the formula of an event, those who participate and the quality of the dialogue is widely appreciated. This is surprising given how uncommon it is that public meetings make use of relatively simple and low-cost strategies to disrupt non-productive dynamics, such as actively encouraging those who do not traditionally participate, or holding meetings in informal settings, and including gestures of appreciation.

Conversational devices

The conversations conducted through Watershed Talk were constructed to enable participants to explore familiar ideas and objects in a different context. Ultimately the style of facilitation in Watershed Talk was pragmatically driven by the expertise and preferences of the research team. However, regardless of what structure had been put in place, active and attentive facilitation was needed. In the Watershed Talk meetings the facilitators looked for particular indicators to reflect on whether openness and trust were being built when potentially conflicting values or ideas were exchanged. These included participants staying engaged and contributing, being able to express and accommodate different values, relaxing into different kinds of meetings and groups, and contributing to strategies of repair if dialogue broke down.

Two particular conversational devices were used to support the overall facilitation of Watershed Talk meetings. These were the ‘icebreaker’ map exercise and the conversational use of the participants’ photographs.

Icebreaker map exercise



Given that the opportunities for dialogue between the participants in Watershed Talk were comparatively limited (i.e. only two meetings) we were interested in ways to swiftly foster connections between participants that would ease candid conversation. To this end the first meeting began with the icebreaker map exercise. Participants in each group were asked to speak about their connection to the catchment using a visual prompt of a map of the Motueka Valley (Figure 7.3).

Figure 7.3 Map used for the ‘ice-breaker’ exercise⁵.

⁵ Courtesy Pete Frew, Tasman District Council.

This map was intentionally obscure, (only the two settlements where meetings were held and the Motueka Township were named) and thus relied on participants' local knowledge to interpret. While this was firstly an approach to elicit information from individuals about their association with the catchment which they could easily share amongst the group, it rapidly became a joint project as participants physically got up to help locate places and interpret the map. This was a comparatively simple but surprisingly powerful device that tapped into the practical knowledge of participants, and built rapport.

Photographic exercise

From the initial introduction stage the meeting moved into the presentation of the photographs that each participant had taken. The inclusion of participants' photography, as a visual representation participant's ideas, played a galvanising role in the project. As one participant observed: *...great tools in the project – like those photos. For me they were a really good way of getting people connected...a tool to talk about things. People focused more on the pictures than themselves.*

The photographs proved a catalyst for collective conversation for a number of reasons. Firstly the act of taking the photographs had been a reflective exercise for participants, pre-preparing them with formulated ideas to share with others. In addition, all the photographs had been developed to the same dimensions and quality so the presentation for each person took the same basic form and was without tacit expressions of power or authority. Rather, the presentations were a direct reflection of areas of the participant's own competency, about which they could speak with a high degree of self-assurance.

Secondly, the use of visual aids stimulated responses at multiple levels. People found they had taken the same images for different reasons or different images to express a similar issue or value. This use of the photographs thus shifted people's levels of connection from the mundane (we live in the same place, our children go to the same school) to the substantive (we share ideas and perceptions). Furthermore this rapidly moved people beyond cursory assumptions and judgements of their fellow group members. Previously held views about types of people present in the group, such as *greenies, pig hunters, farmers, scientists* and *council staff*, were turned on their head. As one participant reflected: *...you might have a lot more in common with someone than you think you have.*

Beyond the commonality of ideas, a shared set of values, ethics or principles might be discovered. As one participant observed, in the past they would have dismissed some people's values but now they saw that it was possible to have divergent views on life but still have convergence over *what was right!* In particular inviting scientists and staff from the local authority to take part in a forum where effort had gone into equalising the status of all participants clearly shifted attitudes, if not to these groups as a whole, at least to the individuals who took part in the meetings. As one participant commented: *I had never met scientists before – my expected stereotype didn't fit!*

The shift in the way the scientists and TDC staff were regarded led to greater trust in the information coming from these people. In both groups people expressed a view that something said by the TDC person or the scientist had changed their minds on things, and that it was *reassuring that people of that calibre are in such positions*. This is in contrast to public meetings where information presented by local authorities, scientists or other public service professionals can be treated with scepticism and suspicion (Corburn 2005).

However, there was an unexpected side-effect to this increased trust. The efforts to construct an equality of value in the contributions of participants did not quite disrupt the tendency towards expanded notions of legitimacy – particularly on the part of the presentations given by the scientists. The facilitators noted a readiness to surrender authority when scientists spoke and to accord information offered by the scientists more weight than that of other participants.

At the close of the project, the research team discovered an unplanned-for use for the photographs, as a prompt for inquiry into how participants' views had changed over the project. In the follow-up interviews participants were shown thumbnails of all the photos they had taken and asked: *would you view any of your photos differently now?* While around half said *no*, a variety of responses arose from the remainder. Most insights revolved around changes in understanding of an issue highlighted in the photographs they had taken, while some commented that they thought differently about levels of knowledge and interest of others that had been revealed through the conversation around their images, e.g. *It surprised me that the images I showed were new to some who were there. What I thought was normal farming practice and good for the environment...was new to others*. Reviewing their thoughts on the photos at the end of the project acted as a form of closure, helping participants recognise the gains and changes from taking part in the project.

Table 7.2 summarise the benefits of using photography to support initiatives aimed at collaboration and dialogue. It can contribute to individual or group capacity as well as work with the overall development of the programme, supporting internal and/or external assessment of progress and change. This way of using photography is not unique and similar interventions have been used elsewhere to support difficult and complex conversations.

Table 7.2 Using photography in collaboration and dialogue processes

Individual	Reflection	The physical act of photography works as a stimulus to ‘look twice’ at everyday scenes and question existing interpretations of these.
	Knowledge building	This results in a conscious (and unconscious) assembly of information, seeking out meaning and determining patterns.
	Self-efficacy	Presentation of a participants own ‘research’ in their own voice gives authority and empowers individuals to make a more confident contribution in a collective setting.
Collective	Communication	The images themselves present a rich and readily conveyed source of ideas and values, easily coupled to the participants own story. This makes for an accessible and comfortable interchange between participants.
	Relationship building	The presentation of individual visual stories of the catchment sends signals of common concerns, and shared views, and recognition that even where there are differing perspectives this does not necessarily negate other common values.
	Collaborative learning	The presentation of the images creates conversational bridges. As presentations are made they build upon one another and the images become reference points for discussion that leads to assessment and reinterpretation of information, ideas and values around the collective imagery as a whole (which is in itself a window into the underlying subject, i.e. the well-being of the Mouteka catchment).
Programme	Evaluation	Both the act of photography and the images themselves can form part of a participatory developmental evaluation, supporting endogenous reflection and information gathering, and enabling more exogenous assessment of changes for participants.

These observations on the use of photography in work with communities in Guatemala parallel experiences in Watershed Talk:

The photograph creates its own story and became a site for wider participatory storytelling and analysis. It represents the photographer's perspective or point of view but then becomes a stimulus for the group's reflections, discussions, analysis and representations. The fixed image serves as a catalyst for an ever-widening discussion of the differing realities that are present... (Lykes 2001, p.369)

Problem-solving facilitation

The use of the photographs and the story-telling that accompanied them was not just a means of sharing participant's values. A great deal of content material about the Motueka catchment, common concerns and emerging challenges was passed on and processed through the individual presentations. This material formed the basis for the selection of a particular area of inquiry for the second group meeting. Thus all participants had a hand in shaping what was perceived as an issue, and no initial assumptions were made on the way a problem should be constructed. The impact of this approach was not lost on participants, at a later meeting with local authority staff from Nelson City Council and TDC, one former Watershed Talk project participant commented on the difference in process used in the project, noting: *Opening people up on their values is such a different starting point*⁶.

There were three stages to the inquiry process at the second group meeting:

1. Unpacking the problem – challenging participants to explore what was going on, and what evidence they had to support this. Participants were facilitated in creating a mind-map of issues and connections to the central problem question.
2. Using a back-casting approach participants were asked to envisage a desirable future – what would things look like if this problem was competently addressed.
3. Participants were asked to consider what strategies might link the existing scenario as they had described it, with the 'ideal future'.

The format of this approach to group problem-solving has its roots in Checkland's (1999) systems' thinking practice, and it has been adapted and frequently used by researchers in the CLEM group in various contexts (e.g. Allen et al. 1998) The value of the approach is that it enables a wide scoping of the problem before coming to conclusions about actions, and an

⁶ Notes taken at a Tasman District Council/Nelson City Council meeting: Maggie Atkinson, 9 June 2009.

examination of the underpinning assumptions about the problem situation. For instance, during discussions about infestation of old man's beard (*Clematis vitalba*) in the Motueka, the Tapawera group explored what might incentivise communities and landowners to take action on weed and pest problems, and questioned whether this was a reasonable expectation of people or whether they would rather just pay their rates and rely on the local council.

7.6 Outcomes of Watershed Talk – content and process learning

An important feature of Watershed Talk was the intent to foster greater understanding and capacity in content and process aspects of problem solving (see Chapter 2 section 2.2.3), signalled by new knowledge gained in these areas as well as shifts in learning receptiveness (Box 7.3). This was assessed through the interviews, the evaluation questionnaire, and the project team's observations. In the Watershed Talk project, indicators of changes in content capacity included that participants had gained new knowledge about the state of the Motueka catchment, and had learnt about their own personal interests and values associated with it, as well as those of others. Furthermore the project team looked for signals that participants had an increased understanding of the different elements important to the problem they discussed in their groups (i.e. land use change and invasive weeds), and had learnt about, and considered, possible solutions. In addition it was an equally important outcome of the project to ascertain whether participants had developed any new ideas about methods, tools or strategies for communicating with others and collectively reaching decisions (process aspects of problem solving). Finally in the assessment the project team also looked at whether involvement in Watershed Talk had furthered an individual and collective sense of responsibility and empowerment to act. These latter shifts are analogous to the notion of *moral development* outlined by Weblert et al. (1995) discussed earlier in chapter 2.

From the various assessments it was apparent that participants had experienced both content and process learning, and the project had impacted on participant's overall learning receptivity. The public document generated from Watershed Talk (Atkinson et al. 2009)

identified four subsets of this shifting knowledge, capacity, and sense of responsibility:

- Altered ideas about the Motueka catchment and its community
- Personal changes in how individuals see their own role and that of others
- Changes in ideas about how to meet with others and problem solve
- Preparedness for further engagement and action

7.6.1 Altered ideas about the Motueka catchment and its community

Overall, the combination of reflecting, presenting, discussing and reflecting again through the Watershed Talk process meant that participants developed a greater sense of the way care and responsibility already manifests in the catchment, and became more conscious of their own level of knowledge and ability. There was also evidence of participants speculating on what kinds of individual and collective knowledge was important for long-term sustainable management of the Motueka catchment.

In the first instance, the individual presentations of the photographs of the catchment raised a large number of issues about the Motueka catchment and its communities. Many of these fell into the category of concerns about the environment and the impact existing land-use practices might have on this (e.g. is irrigation causing the Motueka River to dry out?). There was also apprehension about the negative impact of invasive pests and weeds (e.g. old man's beard, and *Didymo*), as well as concern over the sometimes controversial measures taken by authorities to address these issues (e.g. possum control using 1080 poison).

Another constellation of issues were associated with the unknown impact of likely future trends such as population and demographic changes, or raising energy prices. What was noticeable was that participants early on identified these issues as complex and in need of resolution but not the fault or responsibility of any one agent. The project team speculated that this may have been a consequence of the ethos under which the project had been initiated (the phrase *avoiding finger pointing* was included in the promotional material). It may also have been a result of the diversity of the participants which gave the groups insight into the motives and challenges of a wide range of people in the catchment, and moreover gave these a personal face in the discussion.

Discussion on the issues raised through the photographic exercise occurred not just during the structured, problem-solving part of the second meeting but throughout both meetings.

Participants followed up their personal observations by listening to those of others, hearing at times views that confirmed or contradicted their own,. By debating the significance of what they heard, and incorporating new information, their own views were modified. Similarly sometimes participants reassessed the priority or importance of their original views, when fresh information placed their previous understanding in a new light.

The project team observed a shift for most participants in their thoughts about the scope of their personal knowledge, what knowledge was held collectively and what was needed by the community to address the kinds of problems likely now and in the future – moving from what was sometimes ambivalence around knowledge and its importance to observing: *We collectively have the knowledge – but it may be spread about – so there is real benefit in working together.* People also thought about what changes to current institutional approaches would be required to draw out and share knowledge from multiple sources to get more inclusive and integrated community ownership of knowledge at a catchment scale.

This project has given me cause to actually reflect on my actual knowledge about networks in the Motueka River catchment and the kinds of networks council could consider engaging with in some targeted way, rather than some passive random way. And questioning whether there are better conduits for knowledge dissemination [Watershed Talk participant].

7.6.2 Seeing self and others

In addition to changes to the way individuals thought about what was going on in the catchment, the project team, and the participants themselves, noted several changes to the way participants viewed their own role in how the catchment was managed, and how they regarded the contributions of others. At the first interviews and even at the first meetings participants expressed doubt and cynicism about whether people did show care and take responsibility for the catchment and its community. Notably, many photos people had taken and used in the meetings were not of taking care but rather the opposite, such as rubbish tipped on the river bank, graffiti, or rampant weeds taking over native forest areas. Despite this, in the follow-up interviews, participants commonly expressed more optimism about the amount that people were prepared to undertake and were already doing. As one participant commented: *others do a lot more than I thought they did on the whole – particularly their consciousness and sense of responsibility to the land.*

Shifts in self-efficacy had also occurred, reflected in participants' increased confidence in their own abilities and the significance of their actions to others.

I learned to speak more in public which is not easy for me to do. And to come to a meeting with an opinion on something and through the day I changed. That is good – I learned to listen more intensely, and respect people's thoughts more [Watershed Talk participant].

Similarly, some participants expressed greater confidence in the possibility of linking in with others as a result of an augmented awareness of the networks available to them, an actual increase in these networks (through the people they met in the project), and a trust in their ability to access them. For example: *...I'm slightly more confident in approaching people and I notice I am more open-minded towards what they know, and what I think I know....* Although for others this was balanced with a consciousness of what they believed the limitations of the enthusiasm or skill might be, e.g. *...would happily join a group focusing on an issue I felt strongly about – but I wouldn't drive it.*

These insights into the behaviour of both self and others were enabled through the group make-up and discursive activities within the Watershed Talk project. Participants themselves made observations about what they had believed stemmed from the way the groups had been set up:

There was a surprising diversity in lifestyle and opinions that was represented by a great cross-section of people. The willingness of the group to share their thoughts was a surprise to me – careful choice of attendees I suppose...Great cross section of people – different backgrounds, agendas, knowledge, skills all focused on the catchment or particular part of it.

In addition to shifting ideas about individuals and groups, participants also made observations about people as a whole. For instance, one Council staff participant felt he had a much greater sense of how unappreciated people had felt but also, given the right situation, how good people were at listening to the views of others.

7.6.3 Ideas about meeting and problem solving

One of the biggest surprises to the Watershed Talk project team was the comparative shift in participants' confidence and ideas around process as opposed to content matters. This included making observations on the project as a whole, as well as reflecting on specific

aspects of the dialogue approach, – what it had achieved, and how such processes could be used in other settings.

The research team considered that several aspects of Watershed Talk had contributed to this. Principal among them was that reflection on process had been embedded in the post-back evaluation and both the initial and final interviews which purposefully asked participants to consider not just if any changes had happened but how. Secondly the project itself openly acknowledged that the intentions behind the particular interventions were to explore capacity building for social learning – therefore making the topic of meeting and problem solving processes a legitimate interest for discussion.

Finally, participants observations on process were not infrequently prefaced by comments on how much more enjoyable the meeting events of Watershed Talk had been compared to those they had previously experienced. Though participants certainly critiqued the meeting processes and in particular noted some frustration that the end of the second meeting did not lead to more tangible outcome, the majority considered the project had been an experience they would wish to repeat, leading them to reflect on what significant distinctions in process they could discern. This was regarded as evidence of a developing capacity for judgement on what is useful in a public meeting setting. Significantly those who were less interested in being involved in further initiatives like Watershed Talk were more focused on taking independent action and did not see much value could be gained in talking with others.

Participants made comments on facilitation, including how to balance free-flowing conversation with keeping things on track; the different starting point of the project – i.e. working with existing values; and the difference in the type of conversation engendered. As one participant commented: *It was not oppositional conversation like I have been often used to when trying to express my ideas...I found the group took away the head-on style. It was a new perspective and a new thing for me to achieve.* Participants also considered opportunities in their own sphere of influence were they could translate and adapt the processes they had witnessed in Watershed Talk, e.g. *I am going to use your model at school – get the students to identify issues, not be told by us – it will get them talking with their parents.*

Significantly, the project team also observed that, despite common assumptions that people prefer focused and directed meetings, participants in Watershed Talk became surprisingly comfortable with the camping out approach to discussion. In Watershed Talk this manifested as suspending judgement and developing purpose through dialogue rather than directing conversation based on predetermined topics and areas for debate. Despite some initial reservations people became more confident that such open-ended process could lead to somewhere.

7.6.4 Preparedness for further engagement and action

An emergent view of participants of the Watershed Talk meetings was that the challenges facing the catchment were not necessarily dependent on acquiring more information (although you could always do with more), but were rather how to mobilise, coordinate or support responses to problems. However, an individual or community's willingness to take action is a function of a combination of ability, skill and the awareness of what opportunities there are. Involvement in Watershed Talk for a number of participants influenced their willingness to act through several individual and collective transformations: increased perception of the value of pulling diverse actions into common focus; recognition of the importance of harnessing energy and a heightened impetus to think of ways to do this; and augmented enthusiasm for building 'teamship' and 'communityness' associated with an increased sense of sharing the burden.

In the first interviews, participants were asked about their experiences of taking action and their thoughts about barriers and opportunities to doing so, and this question was revisited in the final interviews. Many participants did not perceive themselves as involved in any action, which clearly discounted their own everyday activities and how these contributed to the well-being of the catchment. The barrier most commonly cited was *lack of time* sometimes wistfully expressed as a desire to do more when *retired* or when other time-consuming activities in their lives drew to a close. Others cited barriers of lack of leadership, lack of understanding, and financial constraints.

In the second interview participants were noticeably more engaged with thinking about opportunities for how to do environmental stewardship better, listing a number of new ideas. Some were oriented towards direct personal or collective action, e.g. *community could*

identify a stretch of riverbank and work together to save a tree by releasing old man's beard from their patch; others considered novel ways of undertaking existing activities, e.g. Look at planning things together with the council, e.g. subdivision; TDC contributing resources and knowledge, local people contribute their knowledge, and get experts in. However, not everyone saw themselves wanting to work collectively; rather there was a place and a need for both joint and independent action. As one participant commented: Let individuals who don't want 'group gropes' get on and do their own thing – it is really important because there is a lot of change at an individual level and it is inspirational to see such action.

Participants also put considerable thought into how to initiate change. In particular, ways of working together which both refreshed the style of existing forums but retained a traditional feel, including options for changing the relationship between the local authority and the community. For example:

I believe as a council that the mayor and CEO should have these community forums. Just go round the district say once a year, in an unstructured way, to say 'we will be here to take questions'. They should act as a conduit back to council. That is a hugely important thing – unless you go and talk to people there is always a suspicion about why things are happening.

However, balancing the optimism of these comments, people were also keenly aware of the potential difficulties in stimulating community action, including inertia, the limitations of existing engagement opportunities and the sheer complexity of everyday life, e.g. *Apathy undermines resilience – it reinforces 'traditional approaches' so recruiting people is important.*

The difficulty associated with anticipating that on-the-ground action will emerge out an intervention like Watershed Talk is that it often manifests as an addition to current activities, whereby an individual or a collective take on a new project. This in turn adds to existing burdens of care and responsibility, rather than asserting original and imaginative ways of enabling stewardship that feeds (rather than feeds-on) energy and enthusiasm. However creative an intervention such as Watershed Talk might aim to be, the context for the individual wanting to take action is always complex. While a single opportunity can create at ideas and even momentum, ultimately, one of the key values of a reflective process is that it enables participants to pause and take stock. As one participant observed:

We are all, in life, trying to carve out a life for our families, earning money to do that. At the same time we say our priorities are our environment, and space, natural resources we are not going to be able to replace – so there is a balance we are all trying to achieve. Some days you are struggling, other days you think you are doing well. Overall you look back on your performance and you've got to be happy with yourself otherwise you've got to change things.

7.7 Significant learning from Watershed Talk

The main features of the Watershed Talk process were: (i) the deliberate cultivation of individual reflection, (ii) building a level platform for the confident sharing of ideas, (iii) destabilisation of assumptions through providing for early sharing of values, and (iv) a structured problem-solving approach. These were all part of a purposeful facilitative design intended to *manage the fall and enable the climb* (M. Atkinson, pers. comm., October 2009) – i.e. to challenge assumptions, allow for the unexpected but create enough structure to enable people to respond to any new ideas that emerge. However, the challenge for some is that such a 'slow reveal' process can be frustrating. As facilitators we learnt how important it was to clarify the stages of the process even if the experience itself remains novel. During a debriefing on Watershed Talk the project team made the following observations about this approach to building a platform for multi-stakeholder dialogue, and collaborative learning:

- Recruitment of participants based on the recommendations of others brings together diverse views; draws on different values and skills than a self-selection process, and validates participants' in their potential contribution.
- Having pre- and between-meeting tasks draws attention to the focus of the meeting and creates continuity.
- Evaluation is an integral part of the process; it provides feedback and opportunities for reflection which cements new learning.
- Facilitation needs to be enabling and generative.
- Ensuring the learning is complete within the cycle of the project and that project expectations are managed is a matter of integrity and important for future relationships.
- Platform design based on articulated principles allows for greater creativity and results in a stronger connection between process and desired outcomes.

Response to the Watershed Talk project from participants and subsequently from those whose feedback was sought in the development of the outreach publication indicated that the process had an integrity of design and implementation that held true to the principles of respect, diversity, empowerment, reflection, generosity, and active cultivation upon which the project had been based⁷. Furthermore, the attention to detail, and the dynamic approach to both the physical and process components of the platform, yielded dividends in participant engagement and in the substantive shifts of content and process learning made by individuals and the collective. The Watershed Talk project not only gathered the viewpoints of people to better understand the critical norms and values at play in the catchment, but the process (the interviews, pre-meeting tasks and meetings) also helped establish relationships both within the group and between researchers and participants, and played a role in shaping how participants viewed their role in the well-being of the catchment as well as that of others.

The integrated nature of the evaluation component was critical to the success of the project. Reflection and structured forms of critique and analysis took place over the entire project, not merely in the events formally named as evaluation. Evaluation was so fundamental to the design of Watershed Talk as a platform for learning that Watershed Talk could be regarded as a participatory evaluation exercise with a theoretical basis in social learning. More specifically, the evaluation-based techniques contributed to learning and development across the project in four areas:

Individual content and process learning	Two semi-structured interviews Photographic exercise Icebreaker map exercise Evaluation questionnaire
Collective problem solving	Systems-based problem-solving facilitation
Project development	Post-meeting project team reflection
Research and development of collaborative learning platform	Interviews Evaluation questionnaire Post-meeting project team reflection

⁷ The draft Watershed Talk publication was shown to a number of people, from different local authorities (e.g. Otago Regional Council and Nelson City Council), as well as community development specialists. It was presented at a special ICM, CRG meeting (August 09) which included TDC staff not involved in the project.

Also important was the composition of the project team itself. As the social researcher in the team I was conscious that working with an artist and landscape and community specialist created opportunities for original and inspired process. In return Maggie Atkinson asserted my contribution was my knowledge of social learning, facilitation and disciplined approach to inquiry. As a collective, including Andrew Fenemor, a catchment hydrologist and former TDC water policy manager, our team was a microcosm of the Watershed Talk experience, using diversity of skill, life experience, theoretical and practical knowledge to tap richer potential than we might have reached on our own.

A legitimate criticism of Watershed Talk as a social learning platform is that it operated outside a formal and institutionally constrained context. Projects run in this way can appear impossible to replicate within existing social and institutional contexts for planning and management. After some years of working in the ICM programme the project team concluded that TDC could not be enticed into using an experimental, adaptive approach within its own mandated planning and management processes, and saw that Watershed Talk might have merit as a model of the potential of doing things differently. It was not designed to be opposite to formal processes but rather to extend these and offer an alternative that could be incorporated, if not wholesale, at least in part. One TDC participant particularly noted what he considered to be the mix between the familiar and the novel in the approach:

Very good process, really interesting, old New Zealand way of doing things – cup of tea – civil, well mannered and it had enough of the meeting structure, an essence of planning about it...kind of 'lamington meets modern RMA'.

One of the interesting aspects, of significance to adapting the approach to more conventional settings, is that, as a platform for dialogue, Watershed Talk was foremost based on developing better ways to work together, rather than addressing a specific problem, and the outcomes suggested there can be a greater tolerance for such abstraction than often suspected, when the processes used are inclusive, and vital.

However, by running Watershed Talk outside mainstream planning and management it became a single intervention unsupported by previous or subsequent activity. The project team were aware there would be no funding for further work, and tried to manage the expectations of participants, knowing that without ongoing support the enthusiasm for new ways of working expressed by the participants would be unlikely to gain much traction.

7.8 Social learning as an explicit goal in ICM research

As outlined in Chapter 6, from the beginning it was clear that many in the ICM programme, viewed social learning as meaning ‘how the wider catchment community learnt about the research of the programme’. Consequently the role of the social researchers was initially thought to be to deliver this, and also to collate information on people’s attitudes and knowledge about environmental issues in the Motueka catchment. My own reflection on this is that CLEM researchers failed to make a persuasive case for action-research to drive the new engine of transdisciplinarity, and for some years we were regarded with suspicion and confusion. This is not surprising when what we appeared to be offering were processes that slowed down events and seemed unproductive in conventional research programme terms. Such a case may indeed have been impossible to make given the existing capacity for understanding different modes of knowledge development and the implications this would have for the roles of scientists and the other programme partners (particularly the TDC).

As has been argued in the previous case stories, mandate and the degree of support given by those in influential positions is essential to the role of the evaluator or social process specialist working within programmes to introduce reflection and learning. In the ICM programme the support of the programme leader and those key researchers running research objectives was critical, as was the connection with the staff of the TDC. While the former was slowly but ultimately successfully progressed, leading to ongoing and productive working relationship with CLEM members, TDC staff involved with the ICM not only changed during the programme history but seemed always more constrained by time and resources.

Nonetheless, over the ten years of the ICM programme social learning has certainly entered the lexicon of programme participants. It may be too much to suggest that social learning acted as boundary object in the programme, i.e. a concept that, while subject to different translations by different communities, acts as a conduit for conversation between different intersecting worlds (Star & Griesemer 1989). However, nor has social learning suffered from a similar fate to that of many other important but unfocused terms such as ‘sustainability’, where at first the term is unrecognised and disputed, then co-opted to various convenient but largely conformist interpretations; and finally it is rejected as insufficiently rigorous or meaningful. If nothing else, the sheer existence of social

researchers who refused to conform to standard roles with the research programme has been the cause of much debate and conversation and ultimately some quite fundamental shifts in perspective, including a greater appreciation for both the challenges of integrated research and the role of social process specialists. The difficulty for the programme has been in finding ways to measure these shifts, as without a clear set of objectives for social learning, there were no baseline data collected. Rather these changes have been described through a series of activities aimed at tapping into the experience of participants, and unpacking the ICM programme story, the outputs of which have been varied including short film and newsletters, as well as more conventional workshops, seminars and published papers (see ICM website for links to these).

In the case of the ICM programme the comparatively radical adherence to the pursuit of transdisciplinary research, and the component that social learning research has played in this, has not won it recognition in the eyes of the principal funding agent FRST. In the 2007 programme review, the ICM programme, with its non-traditional formula, failed to achieve high scores in many traditional programme measures of success. Furthermore a change of government in 2008 has signalled adjustments to science funding with an even greater expectation of ‘delivery of benefit’. As a consequence FRST has asserted that such work as was pursued within the social learning strand of the ICM programme would now be expected to be ‘mainstream best practice’ within programmes, and not allocated any specific funding. However, there are no indications that programmes will be critiqued on whether this is indeed the case.

7.9 Summary

This chapter uses the example of the Watershed Talk project to explore the second strand of activity in the ICM programme aimed at developing capacity for social learning, i.e. developing and trialling platforms for multi-stakeholder dialogue, learning, and systems thinking. Of all the cases presented in this thesis Watershed Talk had most input from my own progressed understanding and interest in how P & D evaluation can contribute to building capacity for social learning. The project design incorporated social learning theory and praxis knowledge derived from the literature (Chapter 2) including understanding of preconditions for good dialogue, the ‘hard and ‘soft’ elements of group interaction, how to facilitate reflection and learning, and how to integrate different knowledge sources. It

particularly examined three praxis issues associated with operationalising social learning: (i) dealing with barriers to learning, (ii) addressing ‘too early’ and a priori problem definition, and (iii) managing an open-ended dialogue process.

Evaluation and reflection approaches were an integral part of the project, contributing to the performance of the platform itself (through supporting participants’ individual and collective capacity for reflection and learning) and providing feedback to the project team. The outcomes of the Watershed Talk project endorsed the idea that P & D evaluation, when integrated into collaborative platforms for multi-stakeholder dialogue, can support the capacity of groups of people to build both content and process knowledge around how to address complex problems. However, Watershed Talk was deliberately conducted outside formal processes for community planning and environmental management. This leaves questions about how the principles and practices derived from this work might be integrated into more mainstream opportunities for social learning in environmental management.

Section 7.8 also concluded the discussion started in Chapter 6 on what can be learnt about including social learning as a specific goal within an integrated environmental research programme. Observations are that even with the deliberate articulation of an intention to pursue social learning, where it is subject to as yet unformed ideas about its meaning, there is a long time period involved in negotiating a place for the kinds of research and work that will advance it. Further the ICM programme has not gained in status because of its adherence to a transdisciplinary approach and its pursuit of social learning, suggesting that the wider context in which research programmes are located is problematic for this work.

