Assessing changes in social capacity: experience with the 'Most Significant Change' technique

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Abstract. This paper reports on recent experience with the Most Significant Change technique. We used the technique on a farm forestry extension project to assess what changes in practice had occurred. The Monitoring, Evaluation, Reporting and Improvement framework, developed by Dr Jessica Dart, enabled us to develop 'program logic' for our extension project. This helped us to clarify the changes we anticipated would occur as a result of project activities. We used the Most Significant Change technique to collect qualitative evidence of changes in social capacity. The Most Significant Change technique involved interviewing farmers and Landcare officers (also known as Natural Resource Management officers) who had interacted with the extension project. Their stories were examples of how the project really touched them. Our experience led to five key learnings:

- The Monitoring, Evaluation, Reporting and Improvement framework helped us to identify the expected intermediate outcomes of our extension project.
- The Most Significant Change technique was effective for assessing changes in social capacity.
- The Most Significant Change technique provided opportunities for the project team to discuss what the project was trying to achieve and how it could be improved.
- The Most Significant Change technique can be time consuming and needs to be budgeted for.
- The Most Significant Change technique provided evidence that one-on-one support to farmers was an effective strategy in bringing about changes in practice.

Introduction

Farm forestry, the integration of trees and farming, has an important role to play in farming systems that are more sustainable and more resilient to climate change. It is widely accepted that farm forestry can protect soils from wind and water erosion, use excess groundwater, improve biodiversity and sink carbon. We also know farm forestry has the potential to provide the resources for new agri-industries, with the associated benefits of income diversification and new jobs in regional areas.

Work carried out with farmers in Western Australia over the past two decades shows that trees can be incorporated into farming in ways that enhance rather than displace current enterprises—for example, trees in belts. The challenge is to extend that experience and knowledge to other farmers so they are able to incorporate farm forestry with their farming operations to help them achieve their long-term goals.

A farm forestry extension project was run in Western Australia from the late 1990s. Its primary objective was to increase the capacity of the farming community to adopt farm forestry practices.

The project involved a regional extension officer providing one-on-one assistance to farmers in planning, implementing and managing farm forestry. The officer also worked with Landcare officers to make them aware of farm forestry as a tool in sustainable farm practice.

A key question we faced, as project managers, was what impact did the extension officer have? That is, what changes in practice occurred as a result of his activities? This paper outlines our experience with the Most Significant Change technique to assess changes in social capacity.

What we did

The first step was to set out the rationale for the project in the Monitoring, Evaluation, Reporting and Improvement framework developed by Dr Jessica Dart (Dart 2006). This framework helped clarify intermediate outcomes—that is, the outcomes that were anticipated within one to five years as a result of project activities. Intermediate outcomes were an essential component of 'program logic' for the project—the link between project activities, project outputs, intermediate outcomes and long-term outcomes. Program logic was also essential for identifying what evidence would be required to demonstrate that anticipated changes had been achieved.

We involved the project team in clarifying the program logic to help develop a shared understanding of what the project was trying to achieve. The program logic for our extension project is shown in Table 1.

Table 1. Program logic for the farm forestry extension project for the two main groups the project could influence—farmers and Landcare officers.

Level	Anticipated outcomes	
▲ **Long-term outcome** (desired result after 20 years)	75% of farmers aware of farm forestry 20% of farmers using farm forestry	
▲ **Intermediate outcomes** (within 1-5 years) (practice and policy changes)	• Landowners have greater confidence about their own farm forestry activities. • Landowners value the knowledge, skills, networks and experience provided.	• Landcare officers aware of farm forestry info sources and networks. • Landcare officers see farm forestry as an important tool in natural resource management. • Landcare officers work in partnership with farm forestry extension officer.
▲ **Outputs** (after 1 year)	• 40 farmers assisted • 2 field days run • 10 demos established • 12 farmers trained • 140 ha planted • 120 tree plots measured	• 1 introductory course on farm forestry run • 10 Landcare officers worked with • 2 Landcare forums attended
▲ **Project activities** (focused on bringing about change)	• Provide extension service (1:1 assistance to farmers on planning, implementing and managing farm forestry) • Support farm forestry education project • Collect local tree data	• Build partnerships with Landcare officers • Promote natural resource management benefits of farm forestry
▲ **Next users** (groups the project can influence)	**Farmers**	**Landcare officers**
▲ **Foundational activities**	Industry Plan for Farm Forestry in the South West Project work-plan developed June 2006	
▲ **Resources**	Farm Forestry Extension Officer employed (July 06 - June 09)	

In developing the program logic it was important to identify the groups of people we were targeting for change. For our project there were two main groups—farmers and Landcare officers, both of whom we considered we had some direct influence on.

The program logic component of the Monitoring, Evaluation, Reporting and Improvement framework focuses on intermediate outcomes because we usually have some control over these. Long-term outcomes are usually too far into the future to have much direct influence on. As shown in Table 1, the intermediate outcomes we anticipated would occur as a result of the activities carried out by the farm forestry extension officer included: *'Farmers have greater confidence about their own farm forestry activities'* and *'Landcare officers see farm forestry as an important tool in natural resource management'.*

Having clarified intermediate outcomes, we were able to develop key evaluation questions—that is, the questions that would help guide the collection of evidence for achievement of the anticipated outcomes. We then needed to think how we would collect the qualitative and quantitative evidence that would show what we had achieved.

We already had quantitative evidence, such as number of farmers assisted, number of field days held and number of hectares of trees planted. Although we had been collecting this sort of data for some years, we were aware that it was telling us little about changes in farmer capacity to do more tree planting on their own in the future. We needed another type of evidence. The Most Significant Change technique, also developed by Dr Jessica Dart (Dart and Davies 2003; Dart and Davies 2005), seemed potentially useful.

The technique involved collecting 'stories' from people who had interacted with the project. The stories were examples of how the project really touched people. Equally important, the documented story provided a stimulus for conversation by those involved in running the

project—a basis for discussion about what the project was trying to achieve and how it could be improved.

There were four main steps:

1.   collecting stories of change
2.   reviewing the stories and selecting the most significant (by project team)
3.   documenting the reasons for choice
4.   providing feedback of results to participants.

We collected 15 stories in total—10 from farmers and five from Landcare officers. Interviews were conducted around the following question: *'Looking back over the past year or two, what do you think was the most significant change for you as a result of your involvement in the farm forestry extension project?'.*

We conducted most of the interviews face-to-face. The interviewer discussed ethical issues with the interviewee before commencing, such as how the story would be used and whether their name could accompany the story.

The interview had three main parts:

1.   A beginning—the situation before the extension officer was involved. That is, background and context.
2.   A middle—the nature and type of support provided by the extension officer. That is, what happened,
3.   An end—the situation after. That is, what the change was and why was it significant.

The interviewer made notes during the interview. To ensure that the story accurately captured the perspective of the storyteller and why they valued the change, a draft transcript was sent to the interviewee for checking.

The project team reviewed all stories to select the most significant. Stories were read aloud (farmer and Landcare officer stories separately) and project team members discussed why particular stories were significant to them. Discussion by the project team was the most important part of the whole process—the conversation led to a better understanding of what the project was trying to achieve, how it was going in terms of achieving anticipated outcomes and how it could be improved.

An example of a farmer story is shown Figure 1 and a Landcare officer story in Figure 2.

Figure 1. A farmer story about an interaction with the farm forestry extension officer.

I've been involved in landcare and tree planting for a long time, although my interest and activity has dropped off a bit in recent years.

An area of swamp sheoak that I planted 15 years or so ago next to the main road caught Bob Hingston's eye one day. Bobs idea was to thin the sheoak for fence posts and encourage the best trees to grow on for timber. Bob got in touch with me through our local NRM *(Natural Resource Management)* Officer. His idea appealed to me, so I was happy for him to set up a demonstration site. He's put in a heap of work getting the site ready for a field day next March. The locals are already talking about what's going on there, so I expect there'll be a good turn-up on the day.

Bob and I have also been talking about growing spotted gum (*E. maculata*) for sawlogs. I've had some experience with locally grown sugar gum milled for timber. I like the concept, so with Bobs input I've planned a big planting of spotted gum in 2008—a four row belt, 1 km long. I plan to thin the belt for fence posts and allow the best trees to grow into sawlogs. I like the idea of getting income from the trees while protecting the land at the same time.

Bobs approach is practical, direct and enthusiastic. I also value his understanding of the new clearing legislation and the process to be followed with the Department of Environment and Conservation to get approval to thin my sheoak.

The most significant thing to come out of my involvement with Bob has been a change to using commercial trees. I needed a change from straight landcare plantings. I don't want just native species. Bobs input has helped crystallise in my mind the concept of 'commercial landcare'—the idea that there has to be a commercial basis to activities that care for the land, otherwise it probably won't happen at the scale required. And the other important thing is that Bob and I are learning from each other. (November 2007).

This story was considered significant by the project team for the following reasons:

- The farmer had a change in attitude from landcare plantings to farm forestry plantings.
- The farmer and extension officer learnt together.
- The project impacted on neighbours they saw things happening and started asking questions.

Figure 2. A story from a Landcare officer who had interacted with the farm forestry extension officer.

Beginning

Before being involved with Bob and the project, I considered farm forestry to always look like the blue gum plantations of the higher rainfall areas, and the pine plantations on the deep sands around Kukerin. I had heard that there were options for farm forestry for our lower rainfall area, but hadn't really bothered to find out more information because they just didn't seem practical or suited to the area. When Jill first started talking about Bob and his 'farm forestry promotion', I started to give the idea a little more credit—probably mostly towards the idea of sandalwood plantations for nut and oil production—but still wasn't well informed or particularly interested.

Middle

Jill made me go on the three-day Farm Forestry Course in early 2007. Seemed a bit of a waste of three days but I went anyway. However, over those three days I learnt a lot about farm forestry. The components of the course in the higher rainfall area gave me more of an idea about how 'traditional' farm forestry works, which is good as a bit of education, and also the processing side of things. I began to understand how the resource is limited and the importance of establishing more tree crops to sustain the need for wood and wood products, and that our lower rainfall area should play its part in helping to supply this resource—after all, we use the end products too. And I didn't need any convincing about the environmental benefits of planting trees. Viewing the areas of sugar gum and sheoak in the dryer area, both on the course and afterwards, I have begun to see that it is possible for farm forestry, and that it needn't look like a blue gum plantation.

I'm still not convinced about the management of native stands of wandoo for farm forestry—the logic still doesn't sit right with me.

End

Through working with Bob, after the course, on local properties, I have seen that the scale of farm forestry can be small, even if only to supply a personal firewood resource in 20 years time—which there is going to be a shortage of then. This fits better into our landscape and farming systems too, and I feel more comfortable in promoting the concept to farmers at this scale, which they are more likely to take on, especially those with little experience in forestry.

I am also more comfortable in being able to promote species that grow here naturally—sandalwood, sheoak, yate—and know they can be used for commercial purposes. I am also comfortable in knowing that Bob will be available to assist the farmer, with a positive attitude and plenty of support, as his commitment to his role is unquestionable.

I also have more of an understanding of what FPC *(Forest Products Commission)* do and offer, and have had initial chats with them now about working on a project together.

This story was considered significant by the project team for the following reasons:

- The depth and breadth of change for the Landcare officer was large. For example, she realised the role of other partners.
- There was a sense of a partnership developing.

What we learnt

Our experience led to five key learnings:

1. The Monitoring, Evaluation, Reporting and Improvement framework helped us to clarify the expected intermediate outcomes of the project. These included: *'Farmers have greater confidence about their own farm forestry activities'* and *'Landcare officers work in partnership with the farm forestry extension officer'.*
2. The Most Significant Change technique enabled us to collect qualitative evidence of changes in social capacity that occurred as a result of the project. The farmer's stories showed that they had gained greater confidence in their own farm forestry projects and

that they valued the knowledge, skills, networks and experience provided. The Landcare officer stories showed that they were aware of farm forestry information sources and networks, and that they worked in partnership with the farm forestry extension officer.

3. The stories enabled the team to see the true impact of the project and stimulated valuable discussion on what the project was trying to achieve, how it was going and how it could be improved.

4. The Most Significant Change technique had its costs and challenges. It was quite time consuming (approximately two interviews per day including travel time, plus time to write-up, check and review stories) and this cost needs to be built into project budgets. There is a perception that the technique can be biased towards known 'supporters', so selection of who to interview needs careful thought. Some farmers were concerned that we were 'checking-up' on the extension officer, so we had to let the extension officer make the initial contact!

5. Given the feedback obtained from the stories, it was clear that one-on-one support to farmers, the main strategy used by the extension officer, was effective in bringing about changes in practice.

References

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