Evaluation – chasing industry impact

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Introduction

Evaluation of agricultural extension projects has come a long way since the early nineteen nineties. At that time, evaluations commonly reported only how many growers were involved and usually included testimonials and occasional "back of envelope" economic assessments of potential industry impact. Anything else was considered too hard and unable to be 'credibly supported'.

Now, frameworks like Bennett's Hierarchy (which documents inputs, activities, people involved, reactions, knowledge, attitudes, skills and aspirations, practice changes and impact) guide both program design and evaluation. These frameworks promote program logic rigour and allow evaluation to be done more systematically.

However, an often heard question remains: "Are we meeting the needs of our funders and partners?"

Although interested in the lower levels of the Bennett's Hierarchy, funders are more often interested in levels of practice change and industry impact, especially in economic terms.

Project managers understandably find practice change and industry impact difficult to measure in the three-year (or less) funding regimes which now abound. This difficulty is accentuated when project evaluation needs to be completed 3-6 months before the end of a project.

With extension projects that run for more than three years, there may be an increased opportunity to investigate practice change and the impact of a project on the target industry.

From that background came the challenge to Leading Sheep (LS) project members in Queensland at the start of a second round of three-year funding in 2008. That challenge was: What impact is LS project work having on the industry?

The quest to respond to this challenge has now led us to the companion question: 'Is it more realistic to measure the impact of a project after six years rather than three and if so, how do we do it?'

This paper reports on the LS project's planning response to these questions. It includes a report on an anonymous Delphi survey process with evaluation specialists in Australia.

The process led the Leading Sheep team to set realistic evaluation aims and techniques for the second half of the three-year phase, to more effectively measure the impact of the project.

The project

Leading Sheep (LS) is a collaboration of Australian Wool Innovation (AWI) Limited, Queensland Primary Industries and Fisheries (QPI&F) and AgForce Queensland. The project provides a mechanism to deliver knowledge, skills and new technologies to industry.

Project delivery is based on autonomous decisions made by regional committees on priority areas that are having a detrimental impact on producers' triple bottom line. Each region adopts a preferred method of delivery.

Round one evaluation (years 1 to 3):

The evaluation focus in the short term was to assess project efforts to**:**

- support the acquisition of knowledge and skills
- develop attitudes open to change in practice
- promote aspirations for practice change relevant to their enterprise.

Tools written for the program placed evaluation in activity design. Short and long term evaluation reported on the effectiveness of project activities in translating knowledge, attitude, skills and aspirations into on-property practice change.

The round one LS evaluation methodology was to:

- prepare a 'logical framework' based on project objectives using the elements of Bennett's hierarchy

- prepare evaluation tools matching Bennett's Hierarchy elements including a generic evaluation framework
- design each activity and identify its expected short and long term effects using the evaluation tools
- evaluate the immediate effects of the activity – target 100% of attendees – sometimes using a custom web-based evaluation format and sometimes a hardcopy evaluation format
- evaluate the longer term effects – target minimum 10% of original attendees with fax and telephone follow-up
- have regional committees use reported short and longer term effects data to inform their future action
- report evaluation data to the project steering committee and partners.

Table 1 shows short term (at the end of an activity) evaluation data for changes in knowledge, attitudes, skills and aspirations (KASA) of recipients of LS services in the first three-year funding cycle.

Table 1. Short-term evaluation responses reported as KASA data

Item	Supporting material
Increased understanding	Greater than 90% of attendees report increased understanding of activity topics
New knowledge or skills learnt	Greater than 90% of attendees report gaining new knowledge and skills in activities
In what way (if any) has this activity changed the way you view or think?	Greater than 90% of attendees report changes of attitude on activity topics
In what ways do you plan on using this new knowledge or skills in your situation?	87% of participants report planning to use new knowledge and skills immediately after activities

Table 2 shows overall change reported in longer term (3 to 6 months after an activity) evaluation, for clusters of activities.

Table 2. Overall longer term practice change in round 1 in the key targets

Activity cluster	Overall % of practice change reported by attendees	Key target
a) Predation	83% of wool growers taking action on predation	Reduced predation Higher reproduction rates
b) Wool marketing	33% to 83% (depending on topic)	More valuable wool and meat More effective parasite control
c) Climate	50% to 75% (depending on topic)	Higher reproduction rates Improved resource management
d) Business support	20% of respondents have adopted new financial practices	Producer driven revitalisation of the industry
e) Nutrition	66% have adopted changes	More valuable wool and meat Higher reproduction rates

Developing round two evaluation (years 4 to 6)

In round two of the LS project we are seeking continued evaluation of primary outcomes as well as evaluation of industry impact. To that end we are now pursuing whether the activities of LS 1 and 2 have led to impact at the economic, social and environmental level for the industry.

To design processes to measure impact we have used two cycles of a Delphi survey and examination of literature on industry impact.

The Delphi process

A Delphi survey is a forecasting tool in which a small group of skilled professionals in a field are invited to respond to questions about how to perform a task in that field (Cary and Salmon 1976). The participants contribute anonymously, in this case via email. The process typically involves two cycles.

Seven skilled evaluation professionals took part in two cycles. In the first cycle the experts were asked about evaluating impact in an industry. In the second cycle they were asked to use their own and other professionals' ideas derived from the first cycle, to design a five-step impact evaluation process for the LS project for its second round of funding and beyond.

Delphi results

Table 3 shows an abbreviated summary of the steps the skilled professionals consistently gave as important in the process of social, environmental and economic (SEE) impact evaluation for an industry.

Table 3. Summary of consistently agreed steps to evaluate industry impact

Step	Recommendation
1	Clarify the purpose and agreed outcomes for the project for social, environmental and economic (SEE) situations
2.	Prepare the logframe to incorporate SEE outcomes
3	Develop with core stakeholders an understanding of what is to be evaluated (and what is not), as well as why and how
	For each activity design it to move the project towards the agreed SEE impact
4	Decide on data collection methods matched to the data and sources
5	Analyse the data against the logframe, KRAs and KPIs and report it to all stakeholders

There is little in the evaluation literature about evaluation of industry impact level. What is available focuses on benchmarks and economics, with scant attention to social and environmental impacts. The literature also presupposes that a project can deliver on its objectives and that, as difficult as it may be, any impact on industry can be assessed later through industry-wide data collection. Largely the data sought relates to industry economic status, with occasional attention to social and environmental status. This style of evaluation may be a significant cause of the difficulties described for industry impact assessment by project managers.

Leading Sheep project plans for evaluating industry impact

In the detail provided by Delphi respondents, the five steps translate into a plan for the LS project, as shown in Table 4. The plan will enable the project team to assess the impact of the project on the sheep industry in Queensland, as the project progresses.

Table 4. The SEE evaluation steps

Step	Detail
Find agreed SEE objectives	Find out from core funders QPIF and AWI what they want to achieve for the industry in Queensland in terms of social, economic and environmental (SEE) outcomes from the LS project
	With the Producer Advisory Panel (PAP), and staff, examine the funder requests for SEE changes and decide if they are achievable
	Where necessary re-negotiate with funders until agreement is reached.
Develop the logframe	Examine the existing logframe (program logic) and adjust using the agreed SEE objectives
	Describe the SEE context in which the program is operating
	Negotiate with funders what will be credible evidence of industry impact
Understand the evaluation	Generate an understanding of the evaluation with PAP and project staff
	In the understanding identify:
	the audience for the evaluation
	the purpose of the evaluation, and
	how findings will be used
	Use the logframe prepare the evaluation questions that guide the project
	Adjust the design of existing tools to accommodate SEE objectives
	Design each activity with attention to the agreed SEE outcomes
Data collection	Describe who the impact data will come from and how it will be gathered
	Look for sources of benchmark data for the SEE objectives. If sources are unavailable decide if it's possible to it ourselves
	Have an external evaluation professional do a mid-term review
Analysis and reporting	Analyse the gathered data for SEE against the KRAs and KPIs of the logframe.
	Draft the report 4 to 6 months before the due date and include its data in any future submissions for funding

The five steps will be supplemented with a selection from the *Guidelines for Evaluation Action,* contributed idiosyncratically by Delphi respondents and shown in Table 5.

Table 5. Guidelines for action

Item	Possible implementation process
Mix data collection methods to add rigour through triangulation	Collect topic specific short term change data + long term change data + stories from individuals and group as qualitative data
Gather structured and comparable feedback from different perspectives in the project	Have separate, face to face 'structured feedback' sessions with stakeholders/Steering Committee/project team to capture progress and impact
Design suites of activities with features that move 'towards' the desired impacts and match the activities with evaluation of effectiveness that feeds back into the delivery of suites	A sample suite could be a 1) *hands-on field day* + 2) *webinar* two weeks later designed using evaluation from field day + 3) *mail out to attendees* of who to network with for more information on implementation
Conduct a longitudinal study over the life of the project and after it	1) Collect repeated observations taken of the same recipients. This can include narratives and case studies to capture real changes and impacts 2) Invite grower participants benefiting from programs to keep detailed records of what they are doing as a result of their participation
Analyse evaluation data on themes rather than detailed statistical graphs or tables	From participants, invite their ideas of how LS activities contribute to the SEE aspects of management…identify themes and collect reasons why other participants are similar or different
Use a 'campaign map' of the regions and transfer information and priorities to the map	Trial this as a means of tracking activities visually to gain another perspective on the impact of the project e.g. delivery frequency; attendee location etc
Continually check the coherence between agreed desirable impacts and activities delivered by LS	Each six-months, review the logframe for how well the activities are connected to the desirable impacts
Take a longer term view and not be concerned about attribution	1) Regularly scan the environment for other 'work' that is contributing to the outcomes for the project 2) Invite recipients of LS activities to identify other sources of information they use to make decisions

Discussion

The web of causal contributors to industry impact is indeed tangled and cannot be unravelled with any real clarity of attribution. The web is only made more intricate by the time over which projects deliver activities and the personal approaches industry members take to decision making.

These factors ensure a continually emerging complexity which must be evaluated to assess impact and report to funders. Project managers speak of this complexity when they report the difficulties in determining industry impact.

Our chosen way to deal with the complexity was to access current professionals' practical knowledge of evaluation, in a process which uses them and their knowledge to design a contemporary impact evaluation. We believe we have successfully done this using the Delphi survey process.

We appreciate greatly the way the seven evaluation professionals entered into the spirit of the Delphi and gave freely of their time and knowledge. Their efforts will add significantly to the effectiveness of the LS project.

That the five-step process and accompanying guidelines for evaluation action, don't offer 'out-there' or 'new' ideas for evaluators, probably reflects the nature of change as the precursor to industry impact and reflects the concept of evaluation itself as an assessment process.

Change at the industry level is often multi-source initiated, market return and seasonal condition dependent, long duration focused and funder driven. At the same time, it needs to match the client's business and learning requirements. Conceptually, evaluation assesses project-linked change. The tension generated by these multiple dimensions may shape evaluation into a recognisably common approach.

An example of 'not new' is the continued use of logical frameworks to generate a 'program logic'. Our research shows log frames maintain their pre-eminence in contemporary impact

evaluation as the preferred means of describing the interplay between resources, activities and desired outcomes. This is because in evaluation approaches at any level, log frames enable a project to integrate design, implementation, evaluation and reporting.

Taken together what it probably means is that the place for 'out-there' newness in evaluation lies most readily in the design of activities and data collection.

If there are *points of newness* in the output of the Delphi survey, they can be recognised in two areas. The first is inviting funders to make explicit the impact they wish to create at the economic, environmental and social level for the industry through the delivery stated objectives of the project they are funding. This can be expected to increase the coherence between funders' project objectives and their desired industry impacts. The second is in the linking of agreed desired impacts at the economic, environmental and social level in the industry to the design and delivery of suites of activities at the day-to-day level of project activity.

References

Cary, J.W. and Salmon, P.W (1976) Delphi and Participatory Planning: focusing the planning process in an agricultural service organisation. Agricultural Extension Research Unit, School of Agriculture & Forestry, University of Melbourne.