Scanners, brokers and providers: partners in developing learning programs

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1. Abstract

This paper reports some of the findings from a project that aimed to identify effective processes for ensuring that the content of learning activities is relevant to the changing needs of clients, and evolves so as to always incorporate the best available knowledge and science. This paper focuses on findings relating to the drivers for the development of new or substantially revised learning programs. The project, 'Providing client-focussed education and training', was funded by the FarmBis section of the Department of Agriculture, Fisheries and Forestry. The project also produced a self-assessment checklist for training providers to identify ways of improving the development and delivery of training. The key issues include continuous monitoring of client's needs, and actively seeking opportunities to meet and work with industry organisations, other training providers and funding bodies.

There appear to be two drivers for the development of learning programs. One is problems or opportunities identified by people and organisations that could be termed 'scanners' and who tend not to be potential participants, the other is learning needs expressed by individuals or enterprises who want to participate in learning activities.

Scanners are typically industry organisations, government agencies and researchers, but may include providers and participants. Scanners identify learning needs that are not yet being expressed by potential participants, with the occasional exception of leading primary producers. Expressed participant needs drive the development of other programs. Providers become aware of the need for a new or substantially revised program, for example as a result of feedback from an existing program, because of legislative change or from delivering a similar program in other industries or contexts (for example computer training). Brokers (such as industry organisations who work to connect providers and participants) and 'champions' of training help participants identify and articulate their learning needs.

2. Introduction

A wide range of education and training opportunities in many industries, including agriculture, are provided without on-going consideration of the changing needs of clients and the industry. At the same time, major changes to the funding of education and training and extension in Australian agriculture may result in the creation of gaps in the delivery of 'public good' learning opportunities, for example in relation to natural resource management. While the international literature suggests that collaboration is an effective way to deliver education and training, there has been little evidence that this is occurring to any large extent in Australian agriculture. A collaborative approach would allow the industry to capture and benefit from the expertise and skills of University and

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TAFE providers, private providers, and expert staff displaced at the conclusion of various limited term government initiatives.

This paper reports some of the findings from a project that aimed to identify effective processes for ensuring that the content of learning activities is relevant to the changing needs of clients, and evolves so as to always incorporate the best available knowledge and science. It is based on the premise that primary producers deserve to choose from the best possible range of training products, a range that draws on all relevant available knowledge and research. The project, 'Providing client-focussed education and training', was funded by the FarmBis section of the Department of Agriculture, Fisheries and Forestry. FarmBis is part of the Australian Government's Agriculture, Advancing Australia (AAA) initiative, and has two components. The national component provides assistance to enhance the business management skills of Australia's primary industry sector through the development of new and innovative education and training projects. The Commonwealth/State component provides subsidies to help primary producers participate in business and natural resource management training to improve their business (www.affa.gov.au). For the purposes of this project, *clients* are primary producers/land managers and their representative organisations. Government is a client when it is purchasing training.

The paper focuses on findings relating to the development of new or substantially revised learning programs. The project also produced a self-assessment checklist for training providers to identify ways of improving the development and delivery of training. The key issues include continuous monitoring of client's needs, and actively seeking opportunities to meet and work with industry organisations, other training providers and funding bodies. Further information on these findings is available in the project report (Kilpatrick, Fulton and Geard, 2002).

3. Literature review

Education institutions, training providers and other learning facilitators have a key role in determining the content (as well as the format) of structured learning. As in many industries, especially those dominated by small business, primary producers' access to structured learning opportunities is determined largely by what is available in the marketplace (Kilpatrick and Crowley 1999). The small business market is acknowledged as a difficult one for providers to service (Kearns 2002). Like many small business operators, primary producers are not necessarily well informed about alternatives, nor do they necessarily have the ability to select or negotiate training that best matches their needs.

Importance of relevant content
Roy Morgan's reviews of the FarmBis program in 2001 and 2002 found that content was the most important factor influencing farmer participation in learning activities (Roy Morgan 2001, 2002). Several researchers have found that if information or training is not seen as relevant and applicable by farmers they are unlikely to access or use it (Keen and Stocklmayer 1999, Kilpatrick 2000, Kilpatrick *et al.* 1999). Beer *et al.* (1996) report a similar finding in organisational management literature that change is resisted if lower level managers cannot see a connection to their business goals.

Providers and collaboration

For the best range of training products to be available, providers must be well informed about relevant scientific, social, economic and environmental knowledge and research. Carney (1998) cites many examples where government research and extension are isolated from clients. For the best range of training products to be available, providers must also be aware of producer and industry needs. These needs may be expressed by potential participants, or may be needs of which they are not yet aware. Representative organisations and government have, or are in a position to establish, relationships with both producers and providers. They are in a position to act to improve information flows between producers and providers.

There are benefits in focussing on the articulated needs of potential training participants and their enterprises, or the demand-side of the training market. These include enhanced relevance, quality and efficiency of training. Dialogue with representative organisations and government as well as enterprises can act to avoid the risk of a demand-side focus identified by Billett and Hayes, and as applies in the Australian vocational education and training system:

> A shift to an enterprise focus [for determining training needs] may be responsive to the needs of enterprises, particularly large enterprises, but has the potential to result in highly localised skill development rather than achievement of longer-term industry and individual goals. (Billett and Hayes 2000, p. v)

The growing focus on learning for natural resource management (NRM) in Australia brings with it a complex definition of the client in the demand-side of the training market. Enterprises can benefit from learning activities in this area (private benefit), but there are a range of other beneficiaries including other primary industry enterprises, other industries, communities and society as a whole (public benefit). Government can be regarded as a client of natural resource management education and training, representing these other beneficiaries. Collaborative approaches are especially effective in affecting positive change for the environment compared to individual approaches. When people are organised into groups and are involved in the planning and implementation phases, agricultural development is more likely to be sustained (Pretty and Frank 2000).

Collaboration by providers, in short, is likely to result in superior training products because of improved awareness of research and other new knowledge; improved understanding of client needs; and improved impacts in terms of positive changes to practice following training, especially in the case of NRM.

Literature examining approaches for providing client driven education and training in other countries and industries was reviewed for the project. Literature on partnerships and collaborations around learning in agriculture and other industries identified six categories of models of partnership arrangements around training (see Kilpatrick, Fulton and Geard 2002, Appendix 1):

?? client-provider partnership
?? broker-client-provider partnership

?? researcher-industry-provider partnership
?? industry-provider partnership
?? government-industry-provider partnership
?? provider-provider partnership (may also include government, eg. as a facilitator).

The benefits of partnerships between clients, industry and providers and the factors that enhance and inhibit the operation of partnerships in delivering benefits from the literature and the models are synthesized in the next section.

Benefits of partnerships between clients, industry and providers
As well clients having an improved level of information about available training providers and programs, and providers' having improved knowledge of clients' needs (improved mutual understanding), there are other benefits that have been identified at the training system level. Industry has the opportunity to influence the work of providers, including universities, schools and VET sector, in directions that benefit industry (Kearns, Murphy and Villiers 1996). The formal education sector benefits by: developing opportunities to enhance the quality and relevance of vocational programs; the formation of strong links with industry; professional development of teachers; and the opportunity to develop new learning strategies to be more innovative and enterprising overall (Kearns, Murphy and Villiers 1996, Ferrier, Trood and Whittingham 2001). Course development can be managed in order to accommodate, respond to, and possible lead towards wider changes in society (Taylor 1997).

Medium and longer-term enterprise and industry level benefits from collaborations include enhanced uptake of new practices because training activities are directly relevant to participants (such as found by Kilpatrick 1997) leading to enhanced competitiveness in the global economy, and economic, social and environmental sustainability. Industry benefits from a more highly skilled workforce that is committed to its work, with an enhanced capability for on-going learning and transfer of skills from training to the job and from job to job (Kearns, Murphy and Villiers 1996). Better integration of education and training systems improves the key functions contributing to innovation, including research and development and intra-firm creative learning experiences (Kearns, Murphy and Villiers 1996).

Enhancers and inhibitors of collaborations
Factors that enhance the effectiveness of collaborative arrangements include opportunities and structures for interaction which facilitate two-way information flows and networking. Networks that extend outside the community/sector give access to advice, resources and specialist providers. Formal structures of boards and committees tend to enhance the effectiveness of partnerships that are beyond the early, initiation stage. Enabling leadership (leaders being not only people in positions of authority and power), training brokers and/or local coordinators who facilitate the operation of ongoing relationships are a human infrastructure resource that helps the operation of the partnership. Interpersonal, conflict resolution and teamwork skills are important. Learning activities should be highly relevant to the partners. Some shared visions, values and trust among the partners in the collaboration are required; partnerships with a vision that allows a mix of meeting the needs of individuals, the community and the region are

the most successful (CRLRA 2001). Brokers or intermediaries play a key role in forging a learning culture (Kearns and Papadopoulos 2000); industry or government bodies can facilitate interaction. Partnerships where industry is proactive in initiating and maintaining linkages and relationships tend to be the most successful (Kearns, Murphy and Villiers 1996).

Insufficient continuity of programs or local personnel wastes resources in trying to keep up with changes and diminishes enthusiasm and is an inhibitor to effective collaborations and partnerships. The importance of continuity of staff and programs in all sectors in rural communities is noted by Geddes (1998) in Europe, and CRLRA (2001) in Australia. Cultural barriers including lack of understanding by all partners of each others' cultures, for example, the cultural differences between education institutions and industry and lack of understanding or clarity of the purpose of the partnership and roles and responsibilities of all in the partnership are further inhibitors.

Drivers of collaborations around training
If collaborations around training bring benefits at the level of the training system, and, more importantly, benefits for industry in the medium to long term, it is important to understand the drivers or motivators of education and training collaborations. Seven drivers of collaborations around education and training in regional Australia were identified by CRLRA (2001). They are:
?? community collaborative response to adversity
?? community-led multi-sectoral collaborations around natural resource management
?? collaborations based on cultural association (eg Indigenous)
?? enterprise-driven partnerships
?? policy-driven collaborations
?? provider-driven collaborations
?? skill development for industry.

Having effective opportunities and structures for interaction that are resourced with people skilled in working across the producer-industry-education sectors cultural divide lies at the heart of successful partnerships. The next section outlines the methodology used to investigate the extent and operation of collaborations in developing education and training programs for primary industry.

4. Research method

Criteria to assess the process that providers, in partnership with other stakeholders, go through to plan and develop training were developed from a review of the literature and refined at a stakeholder workshop. Workshop participants included representatives from industry and government, extension practitioners and training providers. Five criteria of good practice for the process of planning and developing learning programs were developed. These criteria were used as the basis for the development of the survey instrument administered by telephone to 141 providers of agricultural education and training in Australia listed on FarmBis databases. The survey elicited information about the extent to which the providers had adhered to the good practice criteria in developing and delivering a learning program nominated by the provider. The survey instrument

formed the basis for a provider self-assessment checklist of good practice in providing client-focussed education and training which was a major outcome of the project. Those interested in the checklist are referred to the project report. Providers and their nominated learning programs were ranked as in the top, mid or bottom third of those surveyed according to the criteria developed by the project. Four case studies of good practice in client focussed training were selected from the top ranked learning programs. The case studies were selected to include public and private providers and a range of technical and management topics. Providers were interviewed using semi-structured techniques. The interviews and publicity and program material informed written case studies. The project concluded with a second workshop to validate the findings regarding good practice in planning and developing learning programs, and to capture the actions that providers and other stakeholders could take in the light of the findings.

The five good practice criteria are: (1) understand client needs and motivations to participate; (2) clearly define objectives, measure and follow up on outcomes; (3) efficient use of resources that ensures good value training for participants; (4) recognition of current skills and clear and accessible pathways to learning activities; and (5) mechanisms for ensuring appropriate delivery of training. Each criterion had between four and seven sub-criteria. Examples are: process for monitoring changing needs (1c); involve potential participants in identifying needs and planning training (1d); wide networks of providers, industry organisations, government agencies, technical expertise, researchers and/or community organisations, according to context (1e); act on results of monitoring strategies, feedback into planning (2f); share resources - physical, financial and human (3c); information about training and pathways to further training clear and readily available to all sub-groups of clients (4c); and check provider/trainer/facilitator skills and qualifications meet a predetermined standard (5a).

5. Findings and discussion

This section discusses project findings relating to the development of new or substantially revised training programs, with an emphasis on the initial drivers for development. Readers interested in more detail on the other project findings are referred to the project report (Kilpatrick, Fulton and Geard 2002).

Partnerships and collaborations were a part of the program development process for all but two of the training providers surveyed. For example, industry organisations and government agencies were consulted in setting program learning objectives by more than 40% of the providers surveyed, including over 60% of the top ranked providers. Other providers were consulted in setting learning objectives by 17.5% of the providers surveyed. In one third of cases, a group other than the provider was reported as having the greatest input into the whole development process; most often this was an industry organisation or government agency (see table 1). The target group was mentioned as contributing the most to the process by only 6% of providers, but was rated as a participant in the development process by 46%.

Over 80% of the bottom ranked providers had the most input into the development process, compared to 55.6% of the top group. Top ranked providers were those most likely to have industry organisations as the major contributor to program development.

Eighty-four per cent planned to work with the same partners again, including all the top ranked providers and 96% of the middle ranked group, suggesting a high degree of satisfaction with the partnership and its outcomes. On reflection, around a quarter of the providers in all three ranked groups would have liked others to have been involved in the program development. A variety of stakeholders were mentioned; the highest number of mentions (12) was for industry organisations. Top and mid ranked providers were more likely to nominate groups whose input would have improved the program development process. Access to a wider range of resources (nominated by 20 of the 141 surveyed) and improved match of training to needs (nominated by 19) were given as reasons for wanting others involved in development.

Table 1 Rating of partners according to relative input into development process

Input group	Relative contribution to development process	Most or 2nd most
Training provider itself	Most 66.7%/ 2nd most 12.8%	79.5%
Target group	Most 5.7%/ 2nd most 19.9%	25.6%
Industry organisations	Most 11.3%/ 2nd most 12.8%	24.1%
Government agencies	Most 9.2%/ 2nd most 9.9%	19.1%
Other providers	Most 2.1%/ 2nd most 7.8%	9.9%
Technical experts	Most 2.8%/ 2nd most 5%	7.8%
Private brokers	Most 1.4%/ 2nd most 5%	6.4%
Researchers	Most 1.4%/ 2nd most 1.4%	2.8%
Other	Most 2.8%/ 2nd most 2.1%	4.9%
Unsure	Unsure of relative contributions	0.7%

n=141

The case studies demonstrated the benefits that can arise from joint approaches to learning, and a range of ways in which a client focused approach to education and training can be achieved. They can be found in Appendix 4 of Kilpatrick, Fulton and Geard (2002). From the survey and the case studies, there appeared to be two drivers for initiation of the development of education and training programs. One is problems or opportunities identified by people and organisations that could be termed 'scanners', the other is learning needs expressed by individuals or enterprises who want to participate in learning activities (participants).

Scanners are typically industry organisations, government agencies and researchers, but may include providers and participants. Scanners identify learning needs that are not yet being expressed by potential participants, with the occasional exception of leading primary producers. Natural resource management is an example, where government identified a problem that could be addressed by training. Scanners work with providers to develop education and training programs to meet the identified need. The Challenge 2020 case study, for example, shows how researchers with expertise in the grains industry identified a learning need, and by working with Challenge 2020, transformed this into a practical workshop addressing client needs. In the case of the Recognition of Prior Learning program, the scanner was the FarmBis coordinator, asking questions and gathering data about clients' interest in participating in such a program. The focus of these programs is on the need identified by industry, and/or government and/or researchers; the programs have an industry-government client focus. If providers do not

have a scanning role themselves, regular contact with scanners reduces the risk of isolation from new ideas with education and training implications.

Expressed participant needs drive the development of other programs. Providers become aware of the need for a new or substantially revised program, for example as a result of feedback from an existing program, because of legislative change (for example, the introduction of the GST) or from delivering a similar program in other industries or contexts (for example computer training). Brokers, or intermediaries (such as FarmBis coordinators or industry organisations who work to connect providers and participants), and 'champions' of training (typically primary producers who are convinced of the value of training), help participants identify and articulate their learning needs. Providers may consult with industry organisations, government agencies or other experts in program development, but the programs are participant client focused.
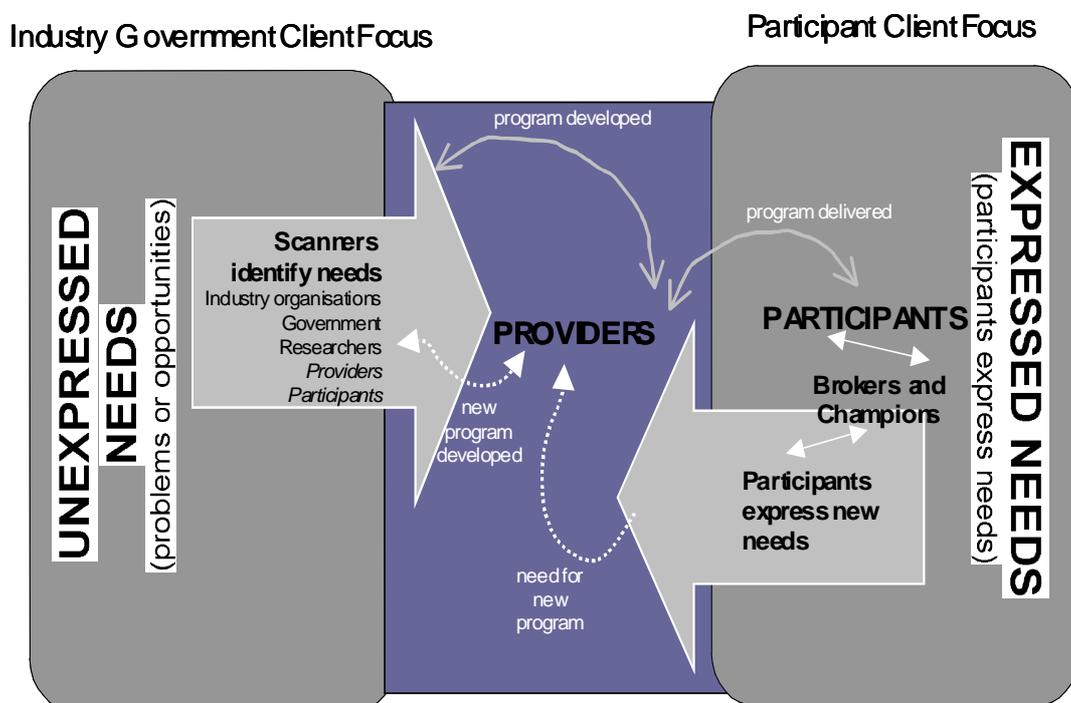
Industry Government Client Focus   Participant Client Focus

Figure 1 New program development model

Figure 1 above illustrates the typical process of development and delivery of learning programs to meet needs identified by the two drivers. The needs identified by scanners are termed 'unexpressed (participant) needs', and are generally related to problems or opportunities not yet perceived by participants. Given the importance of perceived relevance in motivating participation, providers and/or the scanners must convince potential participants that the program is relevant before the target group will participate in industry-government client focus programs. Participants can be expected to be more easily motivated to participate in participant client focussed programs, where the relevance of the learning to a problem or opportunity is likely to be already apparent.

The good practice criteria established that there is a cyclical process in the development and delivery of learning programs. A need originally identified by scanners typically

eventually becomes an established program. The findings show that these programs and those developed to meet expressed participant needs cycle through participants and providers over time, with little or no input from other stakeholders such as industry organisations. Attention to feedback from participants and regular contact with scanners lead to the development of further new programs.

6. Conclusions

Industry organisations and government agencies are significant players in determining training provided. They, as well as the target participant group should have input into the training activities that are offered to ensure that they are relevant to industry needs. Brokers or intermediaries play a key role in forging a learning culture. Industry organisations and government agencies appear to have most of the characteristics and resources required of effective, proactive and well-networked brokers. They are also well placed to act as scanners, identifying learning needs to yet apparent to potential participants. Partnerships where industry is proactive in initiating and maintaining linkages and relationships tend to be the most successful in developing training programs. Thus, industry organisations and government agencies should ensure they participate in formal consultation process with providers to make providers aware of training needs.

The attributes or qualities of an industry learning system, which partnerships should work to develop and maintain, relate to norms and values, knowledge, skills in working together, and an infrastructure for regular interaction. A rural industry training market that is a learning system characterised by on-going collective learning through collaborations and partnerships of providers, primary producers and other government and industry bodies should be the aim of all stakeholders.

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