

INDUSTRY LEARNING: TOWARD A FRAMEWORK FOR FUTURE RESEARCH AGENDAS

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Industry learning is a concept which arose from a scoping study of industry learning priorities conducted by the Centre for Research and Learning in Regional Australia. This paper will address what industry stakeholders (national peak industry bodies, unions and Industry Training Advisory Boards) perceive their learning priorities to be, given the challenges and changes facing the participating industries. Assisting industries to grow and thrive is critical for all industry, but particularly so for rural and regional Australia. Our research indicated that industry learning is a potentially important factor in understanding about industry development and strengthening knowledge sharing within and across industries. The purpose of the paper will be to address the questions of better understanding industry learning and its implications for future policy direction.

Introduction

A changing local and global environment is leading to enormous challenges for individuals, groups, organisations, industries and communities. Of particular concern to us at the Centre for Research and Learning in Regional Australia (CRLRA) is to learn what these changes mean for rural and regional Australia, especially within the context of the changing nature of work and work organisation (Bound & Owen 1998). This paper will report research in progress into what peak industry bodies perceive their industry's learning needs are, given the challenges and changes facing those industries, with a particular emphasis on regional Australia. It will do so by (i) defining some of the key terms used in the paper; (ii) outlining the findings of an audit conducted by the Centre into industry learning priorities; and (iii) developing a framework for investigating the notion of industry learning, having linked it to the literature on learning. The introduction to this paper will outline some research undertaken at the Centre, and the second part of the paper will advance a framework for considering industry learning that, we hope, will assist part of Australian industries to better respond and manage in time of change.

What do we mean in this context by the terms "industry", "peak industry bodies" and "learning"? Authorities such as the Australian Bureau of Statistics (ABS) define industry as "groupings of businesses which carry out similar economic activities" (ABS 1993 2) such as the retail or construction industry. In this paper, industry peak bodies are not simply "businesses", but also include organisations interested in advancing businesses involved in similar economic activities. Industry peak bodies therefore refers to interest groups, comprising employer bodies, unions, Industry Training Advisory Boards (ITABs), professional groups and others. Unions, employer bodies and ITABs have now been operating in a tripartite arrangement for close to a decade, with the industry ITAB representing government, and acting in a coordinating role.

This paper explores the nature of relationships between these three peak industry bodies. Our contention is that industry learning is a process involving effective communication patterns and information flow/knowledge creation between the peak bodies, resulting in optimal working relationships. As a result, industry learning increases industry's capacity to respond and indeed to be "interactive" in a world of rapid change. The term interactive means, the seeking of 'self-development' and realisation and increasing the ability to be in better control of one's own destiny. This term comes from Ackoff's management strategies (cited in Landau 1972 636) and in this paper is applied to the inter-relationships between the peak industry bodies discussed above. Learning at the structural, strategic and cultural levels within and between peak bodies, is necessary to develop the capacity to adjust to ongoing change. For industry to become increasingly responsive and interactive, learning at all these levels needs to occur, and in order for this to occur, understanding of the context, or environment in which industry is operating is necessary. The potential for tension between these multifaceted groupings which comprise peak industry bodies and opportunities for sharing of knowledge and influencing decisions, is considerable.

The research on which this paper is based was undertaken by the Centre to identify the perceptions of industry bodies about the:

- changes occurring within the industry
- the challenges ahead for the particular industry sector; including

- what do these changes and challenges mean for rural and regional Australia.

The research was undertaken through a telephone survey early in 1998 of peak employer organisations, unions, and Industry Training Advisory Boards (ITABs) (n=23) across a range of industries. Industry sectors included: Construction, Communications, Education, Health and Community Services, Mining and Manufacturing, Retail, Tourism, and Utilities. The interview questions were designed to provide contextual information about the industry body being interviewed; to identify the challenges and changes facing that industry and the representative respondent's view of the future, perceived levels of satisfaction with current training arrangements, as well as the learning implications at three levels: individual, organisational and industry. Summarised here are those comments in relation to: changes and challenges; levels of satisfaction and future needs.

Changes and challenges

Not surprisingly, the industry bodies nominated changes such as globalisation, an increased competitive environment, changing market trends and changing structures of the labour market as having had significant effects on their industry overall. The majority of industries surveyed stated that it is more difficult to attract specialists or professionals to work in rural and regional Australia. Changes in labour market structure also present particular challenges for industries in general, and rural and regional Australia in particular.

Outsourcing and contracting out were leading to increasing numbers of small businesses and were common features of the changing labour market across all industries. This has implications for the national training framework. Changes in the nature of work and work organisations are also leading to individuals and groups requiring new skills to undertake short-term work (for e.g., that found through the tendering process) including the capacity to be able to work within loosely coupled strategic alliances; communities of practice and continuous learning are necessary to support this trend.

Levels of satisfaction with current training arrangements

In general, respondents were satisfied with current training arrangements, although all respondents reported a sense of frustration at the constant changes occurring to accredited training arrangements — an often cited example being the introduction of training packages. Respondents also reported considerable frustration in coping with the constant changes, before “the dust had settled” from a previous change. Regional Australia's access to training was reported to be limited and difficult, and keeping skills available to rural Australia was regarded as critical.

Assessment was also a matter of concern for a number of respondents. The perception was that industry understands competency standards very well, the issue is getting people to take up the training. Differing views were offered about where control for the assessment process should reside. On the one hand, there were calls for assessment to be put (back) in the hands of industry, and on the other the claim that industry (or employers) are not the best qualified to make assessments. As one respondent noted “we need standards applied universally to on-the-job training to ensure moderation of assessment”.

Future needs

Some respondents believed that their particular industry was “too insular”, in other cases that the industry needed to become “more professional” or (to) “develop a common view” of the industry. In relation to the latter point there appeared to be significant differences between some industry sectors and this led us to develop the notion of “industry learning”. We claim that industry learning is a potentially important factor in strengthening knowledge sharing, integration and creation and thus assisting industries to develop innovative approaches to future challenges. We have developed the notion of industry learning from learning theory, as outlined below.

Industry Learning

In this part of the paper we will develop a framework for investigating the effectiveness of industry learning (i.e., information flow and knowledge creation within and between the three peak industry

bodies mentioned above: employer bodies; unions and ITABs). The framework is based on key ideas from a variety of learning theories and these include organisational learning (e.g., Coopey, 1995; Easterby-Smith, 1997; Fiol, 1985; Hendry, 1996; Senge, 1994; Shrivastava, 1983; Watkins, 1993) and socio-cultural perspectives (e.g., Billett, 1996, 1998; Lave, 1996; Resnick, Levine and Teasley, 1993). The organisational learning literature describes learning as a collective experience through which there is shared interpretation and integration of knowledge (Leymann 1989). It is our contention that information flow is critical to the opportunities provided for the shared interpretation and integration of knowledge. A socio-cultural perspective (e.g., Lave 1996 8) informs us that knowledge is always undergoing construction and transformation/change (which we also describe as knowledge creation) and this is what constitutes learning. Knowledge creation then — and thus the potential for innovation — is an important aspect of learning. Where there is good information flow and knowledge creation this increases the capacity to respond effectively and to be integrative. Both the organisational learning and socio-cultural learning literature provides other useful notions that support the idea of information flow; communicative infrastructures and the role of culture and power. These themes include:

- shared norms and values can enhance or inhibit learning (Dodgson, 1991; Easterby-Smith 1997)
- as situations change the ability to “unlearn” or discard obsolete knowledge is important in being able to move on (Hedberg 1981)
- learning is embedded within particular contexts and situations (Billett, 1996, 1998; Engestrom 1996; Lave, 1996);
- knowledge (meaning skills, understandings and attitudes) is shared widely and remembered through a range of strategies which enhance organisational memory (Owen 1998)
- learning and knowing is not the product of a single mind but is distributed or “stretched over” individuals, other persons and the environment (e.g., through the use of artefacts such as notational systems, tools, policies) (Engestrom, 1996)
- the distribution of power and politicking plays an important role in what is learned, and how it is learned (Coopey, 1995; Leymann 1989).

One of the key features of learning in groups is that of climate and culture (e.g., Brookfield, 1987; Tennant & Pogson, 1994). Learning is also a contested, socially situated activity (e.g., Lave, 1996). Hence our contention that learning at industry level is affected by the climate; the culture created by the by peak industry bodies working together and this in turn is affected by the climate and culture each individual brings to the table as experienced in their own organisation. Climate and culture are also influenced by the external environment or context in which the industry and each of the peak bodies is operating.

Shared norms and values, are an aspect of culture, which develop shared understandings. It is these norms and values which are used by members of the organisation, to justify decisions and behaviour. Just as there are often many cultures within an organisation, so there is likely to be a variety of cultures at industry level. Culture and the distribution of power will impact on the extent to which knowledge is shared and the ability to “unlearn”. Capturing a group’s culture is a powerful means of exercising power and control. Owen & Williamson (1994) explain that critical theorists argue that capturing a group’s culture and embedding that culture within certain structures provides a means of control through ideological hegemony. The question is, what are these structures — formal and informal — and in what ways is the ideology exhibited through the culture of peak industry groups? The relationship between culture and climate and the environment in which peak industry bodies operate and their relationship to information flow and knowledge creation, is depicted in Figure 1 below.

Figure 1: Industry learning

Climate, culture and environment

The climate created from peak industry bodies working together, as they do through the ITAB structure, is critical to the flow of information and the potential for knowledge creation and innovation. It is well known that communication is enhanced within a climate where there is trust, cohesiveness and openness. In one industry a climate of trust appeared to have emerged from the successful

resolution of a crisis between the peak bodies. In this industry, the union walked out of an ITAB meeting, because the employer body would not accept competency based standards (in the words of the union). This conflict was resolved and there is “now not much difference between us (the union) and those employers who understand training”. Where peak bodies develop a climate of openness and cohesion, trust will increasingly develop and thus cultures conducive to effective relationships are more likely to develop. However, it needs to be acknowledged that the peak bodies identified in the tripartite arrangements for managing the training agenda also represent different sectoral interests and that conflict between these interests is inevitable. As the peak bodies work together, bringing their own ideologies, policies and understandings of the world, to the one table, they bring with them not only the cultures from their own organisations, but create a culture of their own, through events such as that described above. The story above tells of the successful resolution of a crisis, resulting in the development of trust, which in turn engenders a culture of problem solving.

Culture is made up of shared values, group identity, symbols, language and history (Louis, 1986). The mining industry, is an example, where the peak bodies bring very different experiences and understandings of the world and distinct cultures of their own to the discussion table. The employer body, describes the culture of the industry as a whole as being “compliant”. They also speak of the need for increased consultation. Here language — an aspect of culture — is used to create a particular meaning of the term consultation. This term has been co-opted by the employer body from the industrial democracy literature to mean something quite different. As the Weipa dispute illustrated, for example, consultation for this peak body refers to consultation between the individual worker and the employer. The struggle at Weipa was about individual contracts and the desire by the employer to exercise greater control over the work-force, by breaking not only union involvement, but the union itself. In this case the actions and policies of the employer body, are supported by government policy directions. Changes in government industrial relations policy have seen the dismantling of awards, the increase in management power as a result of a more decentralised system of enterprise bargaining (ACIRRT 1999 36) — including the sanctioning of individual contracts. Government industrial relations policy changes in the form of regulation of workplaces has resulted in a situation where internal regulation, by management’s own decision making power, has become dominant from a situation where external regulation, by outside institutions, was important (ibid). Knowledge flow, the ways in which knowledge is shared, the degree to which it is shared and what is shared are influenced by the prevailing ideology, and reflected in policy paradigms. Industry learning is situated within a climate, a culture and the external environment in which the industry operates, created by the three peak bodies interacting together (see Figure 1). Where one party’s very existence is threatened, it must inevitably lead to conflict and mistrust. Information flow and knowledge creation often result from conflict. However, fundamental conflict of this nature, is likely to lead to a culture and climate of mistrust which in turn, we would speculate, would lead to a focus on tactical issues at the expense of the industry’s ability to be responsive and integrative in relation to future challenges.

Another aspect of culture, that of group identity, is illustrated from our data in relation to the construction industry. In this case, it is perceptions external to the industry which have some importance. One respondent reported that “the culture of the industry is seen as [having a] poor public image in terms of industrial relations, adversarial and male dominated ...”. The affect of such a poor public image on the nature of responses to issues and problems potentially means the industry becomes inward looking, rather than outward looking. The peak bodies of this industry spoke of the potential of the industry and the need to address issues within the industry before moving forward. The potential for change — learning — requires a range of different strategies when the industry is inwardly focussed. On the other hand the retail and tourism industries describe themselves as “vibrant” and “responsive”, displaying an outward looking direction. These industries shared a common sense of direction with all peak bodies — unions, ITAB and employer body — speaking of the “aim to achieve world best practice”. These industries appear to be examples where there is a culture, and a climate which encourages information flow and the integration of knowledge. Questions about the dominant hegemony and the power relations remain to be explored. Climate, culture and context then, are influenced and created by the history, the language, symbols and sense of identity of those involved in the organisation and of the organisation itself.

Institutions and their inter-relationships do not work in isolation and are influenced by their external environment, or broader macro contexts in which the industry is situated. The macro context includes many of those challenges identified by peak bodies in the research: globalisation, government policies, labour market changes; environmental change; public opinion and so on. The external environment, or context, has an impact on the relationships between and within peak industry bodies. These influences potentially set up tensions within and between the peak bodies, impacting on the flow of information and potential for knowledge creation and innovation (see Figure 1). The nature of the external environment, sets up both common and different problems and issues within and across industries.

Our data provides a number of examples of the impact of the external environment on industry focus. For example, in the construction industry labour market organisation was an issue. In the construction industry, the dominant form of labour market organisation is contracting out. While this arrangement has historically been important for this industry, in recent years contracting out has taken on new dimensions. Historically there used to be an ad hoc relationship between government and the construction industry. Prior to the extensive privatisation of many government departments, sections and agencies many of the government's skilled workforce would 'leak' into the private sector, which lapped up an already skilled workforce. Since the implementation of government policy to privatise, training levels in this industry have fallen dramatically. In turn, this has produced tension within the industry in relation to the direction for training. According to some of our respondents, even the trans/multi-national firms employ only a handful of staff on each building site; everything is contracted out. As a result there are a plethora of contractors delivering specialised services (e.g. concreting). Many of these contractors want the industry to deliver training which is specialised in nature; and are not in position to offer apprenticeships which deliver multi-skilled personnel, despite the fact that broad-banding (policy since the 1980s) has existed for many years in the industry. This debate between specialisations and multi-skilling is of concern to the peak industry bodies in this industry. The quotes below from two of the peak bodies illustrate this.

The industry is moving to multi-skilling, yet many companies want to work with , for example, just concreting, this is their sole role and set of skills. The sub-contracting nature of the industry reinforces traditional work practices. ... The major companies employ only a handful of people, the rest are sub-contracted. This is detrimental to the industry, and especially to training and providing the industry with skilled labour (construction industry).

There is a tension between multi skilling and specialisation. The subcontracting structure of the building industry supports specialisations, however, exports and the broader view supports multi-skilling (construction industry).

The construction industry story provides us with an example of a history of practice which affects the nature of response to both internal and external environments. For the construction industry the dominant form of labour market organisation influences the direction and indeed the options for response to future directions. Within this industry as in most industries different interests lead to conflict. Dissonance, created by conflict, can act as a driving force for change and learning (Tennant & Pogson 1991). However conflict can also act as an impediment to change and hence to learning (Hedberg 1981).

Policy and industry learning

According to Stone,

The project of making public policy rests on three pillars: a model of reasoning, a model of society, and a model of policy making. ... Both policy and thinking about policy are produced in political communities (Stone 1997 9-10).

The prevailing ideology and the policy which reflect it, are important to the concept of industry learning because policy is important in shaping the structures which determine the flow of information. It is important in determining what information is shared, what the models and structures are which people use to address and think through issues and thus the potential for innovation and the nature of innovation. Policy formation is important in tripartite processes, and produces outcomes critical to the relationships between all industry bodies.

Ideology and labour market arrangements are just two examples of context influencing future directions for industries and therefore, have implications for policy. The nature of the debate about future direction for an industry is influenced by the flow of information and the knowledge created as a result of information flow, interpretation and integration of knowledge. Debates on which direction to take are alive within most industries. In the manufacturing industry for example, both employer bodies and unions are calling for a change in direction from that being taken by much of government economic and industry policy. Recent reports from peak employer bodies reflect the directions called for 13 years ago by the ACTU: the need to take the high-value-added road through tripartite arrangements which would address regional needs and be reflected in an objective for full employment (ACTU/TDC 1987 73). This is endorsed by The Metal Trades Industry Association (MTIA), in its 1997 report *Make or Break* which states that Australia should be securing investment in high-value-added industries generating high quality jobs. The Australian Manufacturing Workers Union (AMWU), in *Rebuilding Australia*, calls for a National Economic Development Strategy, which recognises the need to strengthen our "tradeables sector", particularly manufacturing. Such calls for a

change in direction are also being made by peak bodies representing sectoral interests across industries. The Australian Business Foundation (ABF) recommends that ‘Governments should shift their policy emphasis from cost minimisation per se towards innovation and technology development strategies’ (ABF 1997 10-11). In its report the ABF report emphasises the need for innovation and knowledge generation. Innovation, states the ABF, drives the growth of nations. These are examples of peak bodies emphasising the importance of knowledge generation and changes, and thus of learning through the development and implementation of policy directions.

The role of ITABs?

ITABs were set up as the government arm for implementing the training reform agenda — as it was then known — which was government policy for implementing the policy shift towards becoming a “clever country”. Potentially ITABs have a considerable role to play in the development of effective climate and culture for learning. The role of the ITABs is widely reported as “to act as a linking device between industry and government” and to “improve training arrangements for their industry sectors” (Fitzpatrick 1997 6). The different perceptions amongst ITABs of their role offers some interesting material to explore. Some ITABs describe their role as something greater than implementing the Government agenda: it “comes back to what industry wants us to do” (Wooden 1997 17). In the construction industry, for example, where there was conflict between keeping specialisations or moving wholeheartedly towards multi-skilling, the ITAB saw its role as creating a culture that was more “professional and cohesive”. The role of ITABs is currently under review: a critical time to assess their role in relation to industry learning.

Conclusion

Industry learning is a concept which has much to offer the development of a policy framework which would assist industries to be innovative and integrative in today’s rapidly changing world. Industry learning has the potential to tap into the wealth of “talent and ingenuity” (Green 1998 193) which is already within Australian communities, while addressing regional needs through a tripartite arrangement. Industry learning is about information flow and knowledge creation. Because the different sectoral interests of labour and capital are represented by the different peak bodies — unions, employer bodies and government — it is inevitable, that there will be conflict and thus dissonance. Dissonance can enable learning. However, in order to “tap into the wealth of talent and ingenuity” (ibid) which already exists, it is important that all relevant voices are heard. Industry learning can create opportunities for all constituencies to be heard, tapping into existing resources, and so increasing the potential for innovation.

The concept of industry learning requires further development and understanding. The current data from which the concept arose, is limited in a number of ways. Our understanding of industry learning would be enhanced by conducting research:

- from the national level to state and regional levels of peak bodies
- from an industry wide perspective to an industry sector perspective.

We are also aware that the number of those who fall outside the tripartite arrangements is increasing due to the decline in union membership; the increase in contracting-out arrangements and the development of strategic alliances.

As outlined in this paper, the flow of information and knowledge creation — industry learning — is influenced by policy which in turn is influenced by ideological persuasion. Ideological persuasion and a history of experience are examples outlined in this paper, of influences on the creation of climate and is part of the formation of the culture which impedes or enhances industry learning. To advance the project of industry learning would require a cross disciplinary approach and as such offers rich opportunities to feed into policy formulation. We have described one example of the contradictory nature of policy where on the one hand, the establishment of ITABs requires employer bodies and unions to come together with the ITAB playing a coordinating role; and on the other hand, industrial relations policy is bent on destroying one of these parties. The role of ITABs is also currently under review. Given the quite different administrative and industry arrangements of ITABs between national and State levels, this is an opportunity to address impediments to information flow between these levels, thus enhancing the potential for industry learning. Particular attention is required to address the issues of information flow and knowledge creation in regional Australia, where the tyranny of distance

contributes to regional needs not being addressed. Green aptly sums up the imperative for the notion of industry learning to come of age:

The real issue is to identify and develop the competitive advantage that already resides in people working in thousands of enterprises across the country, and construct a policy framework to realise the potential wealth of talent and ingenuity. This requires arrangements not only to support the involvement of employees and unions in decision-making, but also to co-ordinate the plans and priorities of enterprises through a sector-based industry policy and, just as importantly, to accommodate the specific needs of Australia's regions. (Green 1998 193)

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