Karen Becker, Central Queensland University, Rockhampton, Australia
Paul Hyland, Central Queensland University, Rockhampton, Australia
Bruce Acutt, Central Queensland University, Rockhampton, Australia

Purpose – The purpose of this paper is to explore the level of consideration given to unlearning during human resource development interventions and to identify the methods being used to reinforce training and development.

Design/methodology/approach – A self-administered questionnaire was given to a convenience sample of employers in regional Queensland and the Northern Territory, Australia. Analysis of responses using descriptive statistics was conducted to identify whether approaches differed in relation to unlearning and reinforcement between large and small organisations, and between those with high labour turnover and those with low labour turnover.

Findings – Results reveal that larger organisations give far more consideration to unlearning than smaller organisations. Those organisations with high labour turnover focus less on unlearning that those with a more stable workforce. Coaching and performance feedback were reported as the most commonly used method of reinforcement of learning and unlearning.

Research limitations/implications – Low response rates mean that results are not statistically generalisable. Owing to the regional location of respondents there may be differences in findings in large metropolitan centres.

Practical implications – Reinforces to practitioners the need to consider unlearning, and also indicates a need for further research in this area. From a managerial perspective the results show that managers need to employ a range of tools and techniques to ensure unlearning can occur.

Originality/value – This paper reports on a study examining unlearning; and begins to address the lack of empirical research on this important concept.

Introduction

As organisations of all sizes and across many sectors are experiencing similar problems in recruiting and retaining quality employees, it becomes increasingly important to make the most of the intellectual capital of those currently employed and to develop strategies to retain and develop all staff. Human resource development (HRD) is seen as one of the key issues in the development and retention of human capital. It has long been argued that HRD must not be viewed as simply the training function within the organisation, but rather must be seen as integral to overall organisational strategy (Delahaye, 2005; DeSimone et al., 2002). Effective HRD must be able to balance a number of considerations in order to deliver effective outcomes. First, it must reflect and support the overall strategic direction of the organisation, and as this direction is implemented, provide support to enable the achievement of organisational goals. Next, HRD interventions must be contingently designed to take into account the existing knowledge of employees and provide assistance to develop this knowledge further, or in some cases, to relinquish previous knowledge and skills that the organisation no longer requires.

Unlearning has not received as much attention in the literature, as that of adult and workplace learning; as it has only emerged in the last 20 years. However, several researchers of learning and change have recognised this process, even if they have not utilised the term unlearning (Anderson and Boocock, 2002; Bridges, 1991; Duffy, 2003; Hayes and Allinson, 1998). As Hayes and Allinson (1998, p. 848) point out:

… in today's turbulent and complex environment, old ways of behaving may fail to produce the required results and the organization may be faced with the need to change, to modify the rules, and encourage new behaviours in order to ensure its continued competitiveness and survival.

To this end, unlearning has become of great interest to management practitioners and academics alike.

The concept of unlearning has been used in a number of different contexts. Some have referred to this concept in terms of individuals undergoing a process of abandoning or releasing old ways and embracing new behaviours, ideas or actions (Baxter, 2000; Bridges, 1991; Duffy, 2003). Others have focussed more upon organisations, as a system, releasing previous methods and approaches in order to accommodate the changing external environments and changing circumstances within the organisation (Hamel and Prahalad, 1994; Hedberg, 1981; Klein, 1989). Most of the descriptions put forward are similar in that they recognise unlearning as a process rather than a discrete event, and secondly they acknowledge the close link between learning and unlearning, regardless of whether the focus is on the unlearning of an individual or the organisation.

This paper reports on research undertaken to identify the extent to which organisations consider unlearning in their HRD practices; to identify whether the increased awareness at an academic and research level has transferred to practice. The research also investigated the methods currently being employed by organisations to reinforce learning and unlearning. The paper begins with a review of the existing

literature relating to learning, unlearning, and reinforcement, and then provides an analysis of the findings of the research particularly in relation to these issues. Finally, some conclusions are drawn as to the implications for HRD strategies.

Literature review

HRD has evolved as a critical element of broader business and human resource management strategies. The importance of a workforce with appropriate skills for the survival and growth of any organisation is acknowledged by most managers. In the current knowledge era, it is recognised that HRD has the ability to make the difference between mediocre and highly successful organisations; indeed between survival and decline, particularly as issues such as workforce flexibility, workforce mobility and skills shortages impact on organisations. Coupled with these challenges is the growing recognition that merely learning, either at an individual or organisational level, will not be sufficient to ensure that organisations make the necessary adjustments for long-term sustainability. Even when learning and changes in behaviour occur, management must consider embedding these new behaviours in the organisation and often HR systems such as performance management, recognition and reward are advocated as effective methods of achieving these longer-term changes in behaviour (Coyle-Shapiro, 1995).

Some may argue that making a distinction between learning and unlearning is not necessary. However, at least some of the learning literature does not recognise the existence of previous knowledge and its potential for impact on the learning process. This lack of recognition of previous learning is referred to by Newstrom (1983, p. 36) as the "clean slate fallacy". Therefore, whilst it is acknowledged that there is the potential to view the concept of unlearning as simply a reshaping of existing perspectives, there does exist a distinct difference between the two processes of unlearning and learning, even though they may occur simultaneously. It is also emphasised that unlearning should not be viewed as an end in itself. The major reason for encouraging or engaging in unlearning is to allow the inclusion of new information or behaviours, and as a means to assisting learning, change and innovation. In the research reported in this paper unlearning at the micro level is of greatest interest in terms of HRD practices, however, it is also recognised that unlearning must occur and be reinforced at the organisational level.

Individual learning is the starting point for an examination of unlearning. Sinkula (2002) considers different types of learning and suggests that unlearning may equate to the concept of double loop learning introduced by Argyris and Schon (1978). Double loop learning refers to learners engaging in questioning underlying assumptions regarding decisions and knowledge. However, Sun and Scott (2003) suggest that double loop learning requires the learner to discard obsolete knowledge, and thus is arguing that unlearning must form part of the double loop learning process; but it is only one part. Unlearning for the purposes of this paper is defined as the process by which individuals and organisations acknowledge and release prior learning (including assumptions and mental frameworks) in order to accommodate new information and behaviours.

In order to determine how to address unlearning, it is important to first understand the key issues in relation to individuals and organisations that may impact on unlearning. At an individual level, it could be suggested that those considered to be experts in a particular field may have the greatest difficulty unlearning as they have invested a lot of time and resources into their current knowledge and therefore may have quite entrenched beliefs and behaviours (Zell, 2003) most of which are internalised at the level of tacit knowledge. Knowles and Saxberg (1988) likewise suggest that those who have invested heavily in their current knowledge may not be willing to unlearn because of a perceived threat to existing power relationships. Linking back, particularly to some of the earlier adult learning theories, issues such as the Laws of Exercise and Effect (Thorndike, 1914, as cited in Vincent and Ross, 2001) suggest that those who have acquired and used knowledge over a lengthy period of time, and the behaviour has been reinforced or rewarded are committed to current knowledge. This then raises the question as to whether due to this use and reinforcement, it may also be more difficult for an individual to unlearn. Long-held views and knowledge acquired and reinforced over a long period of time may be considered more difficult to unlearn than recently acquired knowledge, to which the individual has less attachment. This unwillingness or inability to discard expert knowledge inhibits creativity and innovation in many organisations when experts are unwilling to view new knowledge that they do not possess or control as useful or applicable.

At an organisational level, the concept of organisational memory has arisen in the debate around organisational learning, and as a consequence also needs to be considered when addressing unlearning. Just as an expert in a particular field is likely to experience more difficulty in letting go of old ways and embracing new possibilities, likewise well-established organisations also face the dilemma of discarding or letting go. Markoczy (1994, p. 10) claims that:

… as a result of learning, organizations attain a higher level of efficiency in carrying out their routines but, at the same time, they build competency barriers against adopting new routines.

These barriers, act as resistance points to unlearning at both an individual and organisational level. Argyris and Schon (1978) warn that organisational memory may encourage single loop learning rather than double loop learning, as experience becomes entrenched in the organisation. It could also be claimed that organisational memory has the potential to impact on unlearning of individuals and organisations.

Organisational memory has been the subject of empirical research, and findings suggest that the strength of organisation memory can be directly attributed to the size and age of the organisation (Berthon et al., 2001). It could also be claimed that those organisations experiencing low labour turnover rates will also find difficulty in unlearning due to the lack of new approaches and ideas entering the organisation. In this study, it is argued that those organisations considered to have a strong organisational memory (that is highly entrenched experiences amassed over an extended period of time), may need to consider unlearning more than those that do not have a strong organisational memory. Whether larger organisations and those with

lower turnover rates are more cognisant of unlearning within their HRD practices will therefore be explored by this research.

There are a number of models which have been developed to explain unlearning. Hedberg (1981) suggests that unlearning can occur when new knowledge simply replaces old knowledge as an individual learns more; much like overwriting or accretion. It is not considered to be the same as forgetting where information is lost regardless of its usefulness. Hedberg (1981) sees the two processes as happening simultaneously proposing that knowledge both increases and becomes obsolete, or is discarded as the situation changes. This discarding activity has been referred to as unlearning and is seen to be as crucial as gaining new knowledge at both the individual and organisational levels. The lack of ability to engage in unlearning is reported as a "crucial weakness of many organizations" (Hedberg, 1981, p. 3).

Klein (1989) puts forward a parenthetic model of unlearning suggesting that the old knowledge is not erased, but maintained (in parentheses as it were) for situations where it is believed that the new knowledge does not apply, and is therefore suggesting that a decision is then made as to what knowledge or behaviour is appropriate based upon the context of the situation. Klein (1989) has expressed some concerns about the widespread use of the notion of unlearning and suggests that to improve, it is essential to learn a new method for selecting from a repertoire of responses or tactics; emphasising that if unlearning is being considered in the context of improving organisations, then simply replacing one discrete behaviour or skill with another is insufficient. Regardless of the way in which unlearning may happen, prior knowledge is a potential issue for learning and an important consideration in the HRD process.

The emerging focus on unlearning and the acknowledgement that previous knowledge has the potential to interfere with the acquisition of new knowledge leads to the question of how to operationalise this issue. One approach to address the concept of unlearning is referred to as "Old Way/New Way" and has its origins based in educational psychology. This approach was first proposed by Lyndon (1989) and was utilised as an approach to remedial teaching in the education system; again recognising the role of prior knowledge in learning. It was noted that, "… for teachers and parents … when confronting errors of … children, they are confronting a problem of knowledge, not its absence" (Lyndon, 1989, p. 33). Based on this concept, Baxter et al. (1997) conducted field trials of conceptual mediation (a renaming of old way/new way), and it has now been applied more widely. This approach has been utilised with adults in industry and other arenas to correct either physical or cognitive skills or behaviours, particularly within the vocational education arena. Studies have shown that using conceptual mediation (an operationalisation of unlearning) accelerates the learning and ensures that changes and improvements in behaviour endure (Baxter et al., 1997).

Taking a slightly different approach, LePine et al. (2000) suggest that to address a rapidly changing organisational environment, rather than providing training courses which can often be outdated quickly, organisations may choose to develop their employees in terms of their ability to adapt and handle change (or unlearn). However, there is a caution that "although this approach has great potential, research in this area is fairly sparse and there are many issues that need to be resolved before it can be

used effectively in applied settings" (LePine et al., 2000, p. 564). An increasing number of academics are advocating the importance of considering and recognising the role of prior knowledge, behaviours and mental models as an integral part of any learning process (Kim, 1993; Newstrom and Lengnick-Hall, 1991; Sun and Scott, 2003). This would make unlearning a key concept for developing and implementing effective HRD strategy, however, the question remains as to whether unlearning is being considered by HRD practitioners.

In addition to identifying whether unlearning is actually considered when developing HRD interventions, it is important to consider if organisations use methods of reinforcement to maintain unlearning and embed new knowledge. In this study, respondents were also asked to indicate the tools and techniques used to reinforce learning and ensure that new knowledge and behaviours were embedded within the organisation as a whole and for the individuals involved in HRD interventions. In contrast to unlearning, literature on reinforcement of training abounds, and has been the subject of extensive research (Appelbaum et al., 1998; Bouton, 1994; Prager, 2003; Prewitt, 2003; Skinner, 1953; Teo et al., 2005; Wallach, 2001). Coyle-Shapiro (1995) argues that when the focus of change is exclusively on training and education as the mechanisms to affect change, top management may have to use the rewards and sanctions at their disposal in addition to other mechanisms. According to Englehardt and Simmons (2002) incentives and reinforcements can be used to encourage people to adopt changes such as those that may be the subject of HRD interventions. Pressure to learn often comes from group norms and from a simple awareness of the skills acquired by others and the available opportunities to learn new ways of doing a job. In striving for a more productive organisation that attempts to leverage productivity through people, Grieves (2000) argues that it is important to create awareness that employees' efforts are essential to change and that employees working towards change will share in the rewards of the organisation's success. Therefore, it is also of interest as to whether organisations choose to utilise methods of reinforcement as an integral part of HRD practices, and if so, which approaches are most commonly used, and their level of effectiveness.

Research design and methodology

Given the increasing awareness of unlearning in the literature, it is important to consider how this concept might translate to HRD practice. In this study, it was considered critical to assess the extent to which organisations are now considering how to assist individuals in the process of discarding previous behaviour and/or knowledge. So, as part of a larger study, data were collected to determine the extent to which organisations are considering unlearning in their HRD practices and the methods they are utilising to reinforce learning and unlearning. The results reported in this paper are based upon a survey of employers throughout regional Queensland and the Northern Territory. In particular, the study aimed to identify the extent to which organisations focus on unlearning as part of employee development and to identify current practices in human resource management and development that may assist the unlearning process.

As part of this aim, two questions were asked of the respondents. The first question asked, "When designing training, what level of consideration is given to abolishing 'old ways' of doing things which are no longer applicable?". Forced choice responses offered were: it is rarely if ever considered; it is considered but generally only in terms of the replacement of "old ways" with "new ways"; it is considered as an integral part of the development and delivery of the training; or it is often the entire focus of the training. The second question asked, "Following training, which of the following methods (if any) are used to ensure that employees do not revert back to their previous behaviours/habits?". Respondents were given the option of indicating use of coaching and performance feedback; sanctions and/or penalties; or other methods which they were requested to specify. For those indicating use of any of these methods, they were then asked whether these methods were effective.

The questions were developed for the instrument based on findings from an initial pilot study of unlearning in organisations, and were refined in consultation with industry experts to ensure all possible options were included, and items were clear and concise (McClelland, 1994). It is these questions and responses that will be analysed within this paper to provide an indication of the degree to which unlearning and reinforcement is considered as an integral part of HRD practices.

The study utilised a self-administered questionnaire that was adapted from a previously developed instrument (Miller et al., 2002). Potential participant organisations were contacted in order to ascertain their interest in contributing to the study, and then questionnaires were posted or e-mailed. Those organisations not responding within a month were contacted again in an attempt to obtain further responses. Total of 70 useable responses had been received at the time of this analysis from a distribution of approximately 400 questionnaires, representing a response rate of 17.5 per cent. The respondents were HR professionals or operational managers. Whilst this low response rate is of concern, this study is exploratory in nature and does not seek to generalise findings.

Sample

The population frame consisted of employers, both public and private sector, in non-metropolitan Queensland and the Northern Territory, Australia who were listed on the databases of either the Australian Institute of Management (AIM) or commercially available databases. These regions were selected as they were the areas of interest to the sponsoring organisation AIM (QLD and NT). The convenience sample of firms was drawn predominantly from the service, resources and manufacturing sectors.

Of those responding, 52 (74 per cent) respondents were located in non-metropolitan Queensland, 10 (14.5 per cent) in the Northern Territory, and the remaining 8 (11.5 per cent) did not indicate their specific location. In terms of industry representation within the sample, the industries with the highest representation (50 per cent of respondents) came from the four sectors classified as public administration and defence; finance, property and business services; mining; and professional services.

The remainder was spread across 12 other nominated sectors, representing a broad range of industries.

Findings

This section commences by providing an overview of the participating organisations; particularly in relation to size and labour turnover as both these factors have been claimed to impact on organisational memory (Berthon et al., 2001) and as a result may have implications for learning and unlearning. The findings in relation to unlearning and methods of maintaining unlearning and reinforcing new behaviours are examined. Cross-tabulations are then used to examine differences between the organisations and to determine if any significant differences exist based on size and labour turnover in relation to the HRD interventions and reinforcement approaches being utilised.

When reporting these findings, it is important to be cognisant of the fact that all organisations are located in regional locations. The organisations vary in structure in terms of ownership but are representative of organisations in most regional centres throughout Australia. A large percentage are relatively small single business units either publicly or privately owned (48 per cent) and the remainder are evenly split between the public sector (26 per cent) and branches or franchises of larger organisations (26 per cent).

Therefore, while there has been an increasing trend towards casualisation of the workforce on a broader scale, most of the firms surveyed (Table I) were predominantly employing full time staff, although casuals were more likely to be employed by large firms (defined as those employing more than 50 staff). In part, this can be explained by the need to offer full time positions in order to attract staff into regional businesses.

The staff turnover in the organisations surveyed, as can be seen in Table II, is spread from a relatively low turnover of less than 2 per cent annually in approximately 16 per cent of firms, to substantial turnover of 8+ per cent in 40 per cent of firms. This high level of staff turnover is typical of organisations in regional areas and results in some of the recruitment difficulties reported by DEWR (2003), which details significant shortages and recruitment difficulties in regional Queensland and the Northern Territory. This level of turnover creates specific challenges in relation to HRD strategies and practices in terms of maintaining adequate skill levels. However, high turnover can have a positive impact on organisational unlearning as it reduces both the strength and amount of organisational memory, which can result in a lesser commitment to previous practices and greater willingness to try new or different ways.

Specifically, in relation to considering prior knowledge and behaviours, and the possible need to relinquish these, the questionnaire asked respondents about the degree of consideration given to unlearning. This consideration has been analysed in

relation to both organisational size and turnover to determine whether differences exist in the data, based upon these two factors.

From Table III, it is evident that larger firms (50+employees) gave far more consideration to unlearning, with almost 13 per cent of respondents reporting that unlearning is the entire focus of much of their training and HRD initiatives. This contrasts significantly with only 5 per cent of smaller firms indicating this to be the case. Adding to the strength of this difference, 10 per cent of those in smaller firms identified that they address the issue of unlearning rarely, if at all. This again contrasts significantly to larger firms, with no respondents indicating a total disregard of unlearning.

There are thought to be three key contributing factors to this significant difference. Firstly, larger firms tend to have a dedicated HRD function, and are therefore more likely to have a more structured and sophisticated approach to the development of employees. Secondly, and as a result of this, larger companies are also more likely to offer formal training programs (often designed in-house or customised to suit the organisation) which in turn means that there is more opportunity to target issues such as unlearning. Finally, firms with less flexibility (often larger firms), require more focus on unlearning, as systems and structures provide more opportunity for employees to become entrenched in current practices, making unlearning critical. Also employees in smaller organisations tend to be involved in a wider range of activities that require them to learn new ways of doing things and abolish old practices on a daily basis.

Table IV examines the relationship between the consideration of unlearning and labour turnover. Those respondents rarely considering unlearning, as opposed to those who consider unlearning as an integral part of their HRD practices, reinforce that organisations with higher labour turnover need to focus less on unlearning due to the reduced impact of factors such as organisational memory. Over 7 per cent of those with higher turnover report rarely, if ever, considering unlearning; significantly more than those with a lower turnover. Reinforcing this, is the fact that over 14 per cent of those with a low turnover report unlearning to be the key focus of their training. None of those with high turnover reported unlearning as a focus in their HRD interventions. These results reinforce the proposition that a weaker organisational memory due to the higher turnover, means the importance of unlearning is lessened, as there becomes less need to relinquish entrenched behaviours.

The second area of focus related to how the respondents ensured that learning was embedded, and that those involved in HRD interventions did not revert to old knowledge and behaviours. Those firms, both large and small, who considered unlearning, used coaching and performance feedback to ensure that employees did not revert to the old ways of getting the job done. It is pleasing to note, in Table V, that most firms did not use sanctions alone with the exception of 6.5 per cent of larger firms. This is most likely because of the larger number of employees and the ability of the HR function to implement sanctions without being seen as victimising employees. Closer working relationships in smaller firms can mean that employers are more likely to use positive methods before resorting to sanctions. Also because of the close ties in regional communities between employees and employers and the smaller size of organisations, we see employers discouraged from using punitive sanctions.

When examining the relationship between the organisation's labour turnover and techniques to reinforce unlearning and encourage the use of new behaviours, it is apparent in Table VI that firms with low turnover are more likely to use coaching and performance feedback than firms with higher turnover. Firms with high turnover are more likely to use either a combination of sanctions and coaching and feedback, or neither approach to overcome the likelihood of past practices and behaviour being utilised.

As well as coaching and sanctions, the respondents were also asked about their use of alternate methods of reinforcement. Whilst over 88 per cent indicated they did not use specific methods apart from coaching and sanctions, of the 11 per cent who did, 3 per cent indicated they used additional training (either top-up training or retraining), and another 3 per cent indicated the use of specific incentives or rewards. Other specific methods included the use of checksheets, guest surveys and processes to get management feedback.

Discussion and future research

Using data from a study conducted with employers from regional Queensland and the Northern Territory, this paper has focussed on the degree of consideration given to unlearning, and the approaches to unlearning used by practitioners as part of their overall HRD practices. Whilst it is recognised that the results of this pilot study represent only a small sample of employers throughout regional Queensland and the Northern Territory, it has provided some significant insights into HRD and reinforcement practices, in order to inform a more comprehensive analysis of broader human resource management and development practices.

The high levels of turnover found are representative of those described by the Department of Employment and Workplace Relations (DEWR, 2003) and are associated with problems of recruitment. Whilst this turnover is often claimed to be cause for concern in terms of ensuring adequate staffing levels, in light of the findings of this research, it may also be seen as a way to avoid the limitations caused by an extensive organisational memory, in turn assisting to facilitate organisational change.

Consideration of unlearning, as an integral part of embedding new learning, was seen to be more important by large firms than by small firms, and more important for those with lower turnover. It is suggested that larger firms have less flexibility and therefore require HRD strategies to ensure that unlearning occurs. It also appears that large organisations with a defined HRD function are more aware of the importance of unlearning. For those organisations with high turnover, the continual influx of new employees with new methods and ideas provides a catalyst to unlearning without the necessity for specific HRD interventions.

Both large and small firms were found to use coaching and performance feedback to imbed learning. It is interesting to note that only large firms reported the use of sanctions or penalties alone as a tactic, whereas no small firms reported such an

approach. Future research should focus on why this tactic is used predominantly by large firms, as it has been assumed that this relates closely to the nature of working relationships between employees and managers in larger organisations. This phenomenon might have its genesis in the relative anonymity associated in using such a tactic in large firms or less fear of being accused of victimisation. Large firms more often used a combination of coaching and performance feedback and sanctions and penalties than small firms.

The other point of interest and possible future research is the high use of coaching and performance feedback in small firms to imbed training. The approach to coaching and performance feedback in small organisations as compared to that used in large firms is also of interest. Why so few small firms in the survey used neither of the tactics offered is also an area for future research and has been partly broached in this paper.

Conclusion

Overall, the findings suggest that the emerging issue of unlearning is recognised by a broad range of organisations and that the need for HRD practices to ensure learning keeps pace with change is seen as critical. Even though smaller firms may report different approaches, they are nonetheless considering skill development issues as part of a broader business strategy. In particular, most of the organisations at least recognised the importance of providing support and interventions to allow staff to relinquish previous behaviours, in order to learn. Many also reported using both incentives and sanctions to reinforce learning and ensure that employees do not revert to previous behaviours.

The issue of unlearning and techniques to ensure that employees do not revert to past practices are issues with which HRD professionals and some managers in small enterprises are grappling. There is clearly a need for further empirical work to examine unlearning and its implementation, along with how employers can effectively and proactively ensure that once changes have been implemented employees do not return to tried and true past practice. In this study, we have demonstrated that managers in regionally-based organisations have used performance feedback, training and in some cases sanctions to reinforce unlearning of past behaviours and to prevent or reduce employees reverting to old ways. More work needs to be done to understand unlearning and to determine the most effective ways to encourage this relinquishing of past behaviours in order to incorporate new ones. It is also important to further understand the efficacy of different techniques used to ensure that reverting to past practice does not occur. While a great deal has been written and debated about the usefulness of individual and organisational learning more needs to be done if we are to understand unlearning and how it can best be facilitated.

Table I Distribution of respondents by type of employees

		Distribution of staff by employment type		
Table I. Distribution of respondents by type of employees	Number of employees $N = 70$ (per cent)	Full time (per cent)	Part time (per cent)	Casual/contract (per cent)
	50 or less employees 56	80	11	9
	More than 50 employees 44	72	7	21

Table II Labour turnover in company

Range (per cent)	Number responding	Percentage of total answers	
Under 2	11	15.7	
2-5	18	25.7	
5-8	13	18.6	
8-15	18	26	**Table II.** Labour turnover in company
Over 15	10	14	
Total	*70*	*100.0*	

Table III Unlearning consideration by company size

Level of consideration given to abolishing old ways	50 or less employees $n = 39$ (per cent)	Greater than 50 employees $n = 31$ (per cent)	
Rarely if ever considered	10.3	0.0	
Considered but only in terms of replacing "old ways" with "new ways"	38.5	29.0	
Seen as an integral part of development and delivery of training	43.6	58.1	
The entire focus of the training	5.1	12.9	**Table III.** Unlearning consideration by company size
No answer/no applicable	2.5	0.0	
Total	*100.0*	*100.0*	

Table IV Unlearning consideration by labour turnover in company

	Level of consideration given to abolishing old ways	8 per cent or less *n* = 42	Greater than 8 per cent *n* =
Table IV. Unlearning consideration by labour turnover in company	Rarely if ever considered	4.76	7.14
	Considered but only in terms of replacing "old ways" with "new ways"	30.95	39.29
	Seen as an integral part of development and delivery of training	47.62	53.57
	The entire focus of the training	14.29	0.00
	No answer/no applicable	2.38	0
	Total	*100.00*	*100.00*

Table V Method of reinforcement of training by company size

	Method	50 or less employees *n* = 39 (per cent)	Greater than 50 employees *n* = 31 (per cent)
Table V. Method of reinforcement of training by company size	Coaching and performance feedback	71.8	67.7
	Sanctions and/or penalties	0.0	6.5
	Both	12.8	25.8
	Neither	15.4	0.0
	Total	*100.0*	*100.0*

Table VI Method of reinforcement of training by labour turnover in company

Method	8 per cent or less *n* = 42	Greater than 8 per cent *n* = 28	
Coaching and performance feedback	78.6	57.1	**Table VI.** Method of reinforcement of training by labour turnover in company
Sanctions and/or penalties	2.4	3.6	
Both	11.9	28.6	
Neither	7.1	10.7	
Total	*100.0*	*100.0*	

References

Anderson, V., Boocock, G. (2002), "Small firms and internationalisation: learning to manage and managing to learn", Human Resource Management Journal, Vol. 12 No.3, pp.5-24.
[Manual Request] [Infotrieve] [Crossref]

Appelbaum, S.H., Bregman, M., Moroz, P. (1998), "Fear as a strategy: effects and impact within the organization", Journal of European Industrial Training, Vol. 22 No.3, pp.113-27.
[Manual Request] [Infotrieve] [Crossref]

Argyris, C., Schon, D.A. (1978), Organizational Learning: A Theory of Action Perspective, Addison-Wesley, Reading, MA, .
[Manual Request] [Infotrieve]

Baxter, P. (2000), Mediational Learning: Empowering Individuals and Enterprises to Take Control of Change and Continuous Innovation, STAC Unit, DETIR, .
[Manual Request] [Infotrieve]

Baxter, P., Lyndon, H., Dole, S., Cooper, T., Battistutta, D., Blakeley, J. (1997), "Skill correction and accelerated learning in the workplace: an experimental field trial of the conceptual mediation program and old way/new way", Report on Australian National Training Authority Research Advisory Council Grant No. 95026, .
[Manual Request] [Infotrieve]

Berthon, P., Pitt, L.F., Ewing, M.T. (2001), "Corollaries of the collective: the influence of organizational culture and memory development on perceived decision-making context", Academy of Marketing Science Journal, Vol. 29 No.2, pp.135-50.
[Manual Request] [Infotrieve] [Crossref]

Bouton, M.E. (1994), "Conditioning, remembering, and forgetting", Journal of Experimental Psychology: Animal Behavior Processes, Vol. 20 No.3, pp.219-31.
[Manual Request] [Infotrieve] [Crossref]

Bridges, W. (1991), Managing Transitions: Making the Most of Change, Addison-Wesley, Reading, MA, .
[Manual Request] [Infotrieve]

Coyle-Shapiro, J. (1995), "The impact of a TQM intervention on teamwork: a longitudinal assessment", Employee Relations, Vol. 17 No.3, pp.63-74.
[Manual Request] [Infotrieve] [Crossref]

Delahaye, B. (2005), Human Resource Development: Adult Learning and Knowledge Management, 2nd ed., Wiley, Brisbane, .
[Manual Request] [Infotrieve]

DeSimone, R.L., Werner, J.M., Harris, D.M. (2002), Human Resource Development, 3rd ed., Thomson Learning, Mason, OH, .
[Manual Request] [Infotrieve]

DEWR (2003), National and State Skill Shortage Lists Australia, Department of Employment and Workplace Relations, Canberra, .
[Manual Request] [Infotrieve]

Duffy, F.M. (2003), "I think, therefore I am resistant to change", Journal of Staff Development, Vol. 24 No.1, pp.30-6.

[Manual Request] [Infotrieve]

Englehardt, C.S., Simmons, P.R. (2002), "Creating an organizational space for learning", The Learning Organization, Vol. 9 No.1, pp.39-47.
[Manual Request] [Infotrieve] [Crossref]

Grieves, J. (2000), "Introduction: the origins of organizational development", The Journal of Management Development, Vol. 19 No.5, pp.345-447.
[Manual Request] [Infotrieve] [Crossref]

Hamel, G., Prahalad, C. (1994), Competing for the Future, Harvard Business School Press, Boston, MA, .
[Manual Request] [Infotrieve]

Hayes, J., Allinson, C.W. (1998), "Cognitive style and the theory and practice of individual and collective learning in organizations", Human Relations, Vol. 51 No.7, pp.847.
[Manual Request] [Infotrieve] [Crossref]

Hedberg, B. (1981), "How organizations learn and unlearn", in Nystrom, P., Starbuck, W.H. (Eds),Handbook of Organizational Design, Cambridge University Press, London, Vol. Vol. 1.
[Manual Request] [Infotrieve]

Kim, D.H. (1993), "The link between individual and organizational learning", Sloan Management Review, Vol. 35 No.1, pp.37-50.
[Manual Request] [Infotrieve]

Klein, J.I. (1989), "Parenthetic learning in organizations: toward the unlearning of the unlearning model", The Journal of Management Studies, Vol. 26 No.3, pp.291-309.
[Manual Request] [Infotrieve]

Knowles, H.P., Saxberg, B.O. (1988), "Organizational leadership of planned and unplanned change", Futures, Vol. 20 No.3, pp.252.
[Manual Request] [Infotrieve] [Crossref]

LePine, J.A., Colquitt, J.A., Erez, A. (2000), "Adaptability to changing task contexts: effects of general cognitive ability, conscientiousness, and openness to experience", Personnel Psychology, Vol. 53 No.3, pp.563-93.
[Manual Request] [Infotrieve] [Crossref]

Lyndon, H. (1989), "I did it my way! An introduction to 'Old Way/New Way' methodology", Australasian Journal of Special Education, Vol. 13 No.1, pp.32-7.
[Manual Request] [Infotrieve]

McClelland, S.B. (1994), "Training needs assessment data-gathering methods: Part 1, survey questionnaires", Journal of European Industrial Training, Vol. 18 No.1, pp.22-6.
[Manual Request] [Infotrieve] [Crossref]

Markoczy, L. (1994), "Modes of organizational learning: institutional change and Hungarian joint ventures", International Studies of Management & Organization, Vol. 24 No.4, pp.5-31.
[Manual Request] [Infotrieve]

Miller, L., Acutt, B., Kellie, D. (2002), "Minimum and preferred entry qualifications and training provision for British workers", International Journal of Training and Development, Vol. 6 No.3, pp.163-82.
[Manual Request] [Infotrieve] [Crossref]

Newstrom, J.W. (1983), "The management of unlearning: exploding the 'Clean Slate' fallacy", Training and Development Journal, Vol. 37 No.8, pp.36-9.
[Manual Request] [Infotrieve]

Newstrom, J.W., Lengnick-Hall, M.L. (1991), "One size does not fit all", Training & Development, June, pp.43-8.
[Manual Request] [Infotrieve]

Prager, H. (2003), "Gaining a competitive advantage through customer service training", Industrial and Commercial Training, Vol. 35 No.6/7, pp.259-62.
[Manual Request] [Infotrieve] [Crossref]

Prewitt, V. (2003), "Leadership development for learning organizations", Leadership & Organization Development Journal, Vol. 24 No.1/2, pp.58-61.
[Manual Request] [Infotrieve] [Crossref]

Sinkula, J.M. (2002), "Market-based success, organizational routines, and unlearning", The Journal of Business & Industrial Marketing, Vol. 17 No.4, pp.253.
[Manual Request] [Infotrieve] [Crossref]

Skinner, B.F. (1953), Science and Human Behavior, Macmillan, New York, NY, .

[Manual Request] [Infotrieve]

Sun, P.Y.T., Scott, J.L. (2003), "Exploring the divide – organizational learning and learning organization", The Learning Organization, Vol. 10 No.4, pp.202-15.
[Manual Request] [Infotrieve] [Crossref]

Teo, E.A.L., Ling, F.Y.Y., Ong, D.S.Y. (2005), "Fostering safe work behaviour in workers at construction sites", Engineering, Construction and Architectural Management, Vol. 12 No.4, pp.410-22.
[Manual Request] [Infotrieve] [Crossref]

Vincent, A., Ross, D. (2001), "Personalize training: determine learning styles, personality types and multiple intelligences online", The Learning Organization, Vol. 8 No.1, pp.36.
[Manual Request] [Infotrieve]

Wallach, E.J. (2001), "Management learning groups: continuous quality improvement for managers", The Journal for Quality & Participation, Vol. 24 No.2, pp.30-3.
[Manual Request] [Infotrieve]

Zell, D. (2003), "Organizational change as a process of death, dying, and rebirth", The Journal of Applied Behavioral Science, Vol. 39 No.1, pp.73.
[Manual Request] [Infotrieve] [Crossref]

About the authors

Karen Becker is a Senior Lecturer in the Faculty of Arts, Humanities and Education at CQU. Karen joined CQU in 2002 after 11 years in industry in human resource management roles. Karen teaches in the areas of workplace learning, change and innovation and is an active researcher in these fields. She is a Fellow of the Australian Human Resources Institute and a Member of the Australian and New Zealand Academy of Management, and is currently working on her PhD in the area of learning, unlearning and change management. Karen Becker is the corresponding author and can be contacted at: k.becker@cqu.edu.au

Paul Hyland was appointed to the Faculty of Business and Informatics at CQU in 2003. Dr Hyland is a board member of CINet (the Continuous Innovation Network), a global network set up to bring together researchers and industrialists working in the area of continuous innovation. CINet disseminates a new way of thinking about

management and the organisation of work. He is currently the international coordinator of a global project surveying continuous improvement activities in Europe, Australia and SE Asia. He has published over 30 refereed journal articles, four book chapters and over 80 international conference papers.

Bruce Acutt is a Senior Lecturer in the Faculty of Business and Informatics, CQU and a registered Psychologist. He has worked in the tertiary education sector for 27 years and has taught and researched in the areas of HRM, Management and Organisational Behaviour. His research activity covers the areas of skills shortages, skill development and skill recognition and has published predominantly in the areas of training and development, labour force issues and employee selection techniques. He is a member of the Australi an Psychological Society and the Australian and New Zealand Academy of Management, a Certified Professional of the Australian Human Resources Institute and a Fellow of the Australian Institute of Management.