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What is This?

Dimensionalizing the Architecture of Organization-Led Learning: A Framework for Collective Practice

Noreen Heraty
Michael Morley

The problem and the solution. This article is based on the premise that organizational learning is being raised almost to the status of an orthodoxy, and is in danger of taking on the guise of a postindustrial futurology, because of poor conceptualization and a lack of systematic empirical evidence. Although the motivation for establishing a new order in organization-led learning might be rather straightforwardly hinted at, the work environment and organizational design features, what the authors have come to designate as the “architecture” of the system, can not be so easily postulated. And yet, specifying the foundations and the building blocks of learning in the organizational context is critical to ensure that the vocabulary does not surpass its empirical foundations and conceptual expression, or that the rhetoric does not outstrip the reality.

Keywords: *learning; organizational learning; learning organization*

Arguably, learning has become the conventional wisdom of organizational life, yet, perplexingly, the relationship between work and learning remains a complex one. As the source of sustainable competitive advantage, the ability of an organization to learn faster than its competitors and the creation and dissemination of knowledge throughout the organization is a persistent theme in the business management literature, most especially through the 1990s, and its consequent emphasis on learning has resulted in the emergence of a body of literature on organizational learning and the learning organization more generally (Nonaka, 1991; Hamel & Prahalad, 1990; Senge, 1990; Stata, 1989; Watkins & Marsick, 1996). The fashionableness of learning has not diminished in the decade or more

since Argyris and Schön (1996) noted that, in the academic as well as in the practitioner world, organizational learning has become an idea in good currency.

At the outset, it is important that we clarify our terminology in use. We take as our departure the view that organizations seek some specification on how to understand, facilitate, and perhaps manage learning in their operating environments—we call this *organization-led learning*. In so doing, however, we recognize that this term does not give expression to all learning that occurs in organizations, much of which occurs individually, spontaneously, surreptitiously, and independently of deliberate organizational action or intent. We accept the importance of such learning, but it is not the focus of this article. Rather, the term organization-led learning is designedly chosen to give expression to the range of collective, networked, and collaborative learning that form the conceptual building blocks of this special issue. In the issue overview, Garavan and McCarthy conceptualize learning processes in organizations according to the extent to which they exhibit a focus on a behavioral versus cognitive dimension, a prescriptive/normative versus explanatory/dimension or individual learning versus collective-level learning dimension. Organization-led learning is placed in the collective learning quadrant, which is behavioral in focus but which emphasizes the prescriptive/normative and focuses on collective-level learning (see Figure 1 in the issue overview). Against this backdrop, organization-led learning is used to delineate the consciously constructed systems and practices that can be put in place to facilitate learning at work, and to promote the combining and exchanging of knowledge.

Located at the cusp of organizational learning and the learning organization and knowledge creation fields, and mindful of Weick and Westley's (1996) comment that there seems to be more reviews of organizational learning than there is substance to review, this article charts some of the theoretical underpinnings of organizational learning, arguing that, despite the subject's inadequate conceptual coherence, it has been raised almost to the status of orthodoxy. We advance an architecture metaphor of organizational learning as a mechanism for understanding the theoretical underpinnings and design constructs of effective collective learning workplaces. There is a particular duality to our use of metaphor here: On one hand we offer architecture as a description and explanation of particular structural aspects of organizational learning (a lens as it were), and on the other, we suggest architecture as mechanism for generating organizational learning.

The use of metaphors in organizational analysis has both cognitive and affective components that provide us with particular insights into that which is being investigated. A metaphor is a figure of speech that allows us to express one concept by making reference to a concept in another, often unrelated, field. Here, architecture is used to describe the enfolding structure of organization-led learning. Albeit in good currency more generally, the architecture metaphor is especially compelling in this learning context. Heynen (2000) likens architecture to a cultural field that structures daily life, whereas Janson (1991) describes architecture as "the art of shaping space and human needs and aspirations"

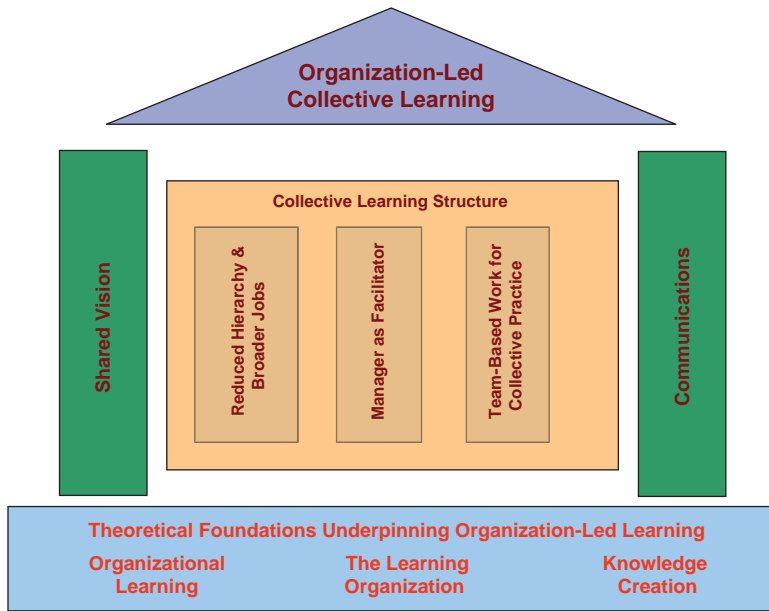


FIGURE 1: Elements of the Architecture of Organization-Led Learning

(p. 84). Viewed in this way, organizations can be said to provide spaces (physical and psychic) that represent the context for the achievement of aspirations. Their particular structural or design configuration can guide and facilitate, or hinder and frustrate, the achievement of these aspirations. If we extend the architecture analogy, we can argue that these design configurations must necessarily be visionary, or be ahead of their time when they are planned, if, as Rasmussen (1991) suggests, they are to endure over time. The architectural metaphor was convincingly applied to the management of human resources by Lepak and Snell (1999). In their highly influential contribution in *Academy of Management Review*, the authors advance the argument for building an appropriate “human resource architectural schema,” depicting building blocks of human capital skills that are unique and valuable to a particular organization. This analogy is further developed by Goh (1998), who advances an organizational archetype comprising a set of strategic building blocks as core features of a learning organization. Viewed therefore within the context of an organization, architecture can be understood as a socially constructed phenomenon resulting from large numbers of people working together to achieve a common purpose. When applied to collective organization-led learning here, architecture represents the consciously constructed systems and practices that are put in place to facilitate learning at work. Viewed through this metaphorical lens, we can echo both Adler, Goldoftas, and Levine (1999), who suggest that the main task of management

involves the creation of an environment of knowledge interaction between individuals and the organization, and Ulrich, von Glinow, and Jick (1993), who call for learning to become part of the organization's normal functioning. Figure 1 provides a graphical representation of elements of our architecture of organization-led learning as derived from the enfolding literature.

As depicted in Figure 1, this article presents an architecture of organization-led learning that draws together many of the interwoven themes that appear to underpin the *essence* of the organizational learning concept. Derived from the extant literature in the field, it delimits a range of mechanisms that are seen to generate organizational learning. At the outset, however, we note that many of the contributions to the organizational learning literature are prescriptive or normatively based and so specification, where it is provided, tends to ignore many of the contextual imperatives that tend to govern organizational functioning. Moreover, there remains a dearth of strong empirical evidence to support many of these prescriptive imperatives.

Although alternatively referred to, convergence in the literature can be seen to exist on a range of issues associated with some form of appropriate architecture or infrastructure of learning. Here it is possible to see some coalescing around the development of (a) a shared vision or understanding of what the organization is about and its values (which is translated into strategies for action); (b) an organization structure that develops systems and routines that facilitate learning and shared understandings; and (c) a commitment to continuous individual and group learning and development (see, for example, Daft & Weick, 1984; Easterby-Smith, Antonacopoulou, Simm, & Lyles, 2004; Garvin, 1993; Gephart, Marsick, & van Buren, 1997; Lant & Mezias, 1992; Nicolini, Meznar, Stewart, Manz, & Klein, 1995; Pedler, Boydell, & Burgoyne, 1991; Redding, 1997; Senge, 1990; Slater & Narver, 1995; Tushman & Nadler, 1996; Watkins & Marsick, 1993). These characteristics are seen to exist and be managed within an appropriate infrastructure that promotes and rewards learning at work. Aspects of these generative mechanisms of the architecture of organization-led learning are discussed in the remainder of this article, bearing in mind that, as suggested by Appelbaum & Reichart (1998), how well or badly the organization learns will depend on the policies, structures, and processes that characterize the organization.

Delimiting the Theoretical Foundations of Organization-Led Learning

The Organizational Learning Perspective

Clearly, the notion of organizations as representing valuable and necessary sites of learning has gained in popularity over recent years and there has been a tremendous interest in the concept of organizational learning and the capabilities required to generate facilitative learning environments. Arguably, in recent

years, this notion of the learning organization has been raised almost to the status of orthodoxy, yet there remains considerable difficulty in arriving at an acceptable definition of the term *organizational learning*. There appears no consensus—either of a theoretical or ontological kind—as to the best means of understanding the nature of organizational learning. Research on organizational learning has been described as fragmented and multidisciplinary (Huber, 1991; Shrivastava, 1983), a “murky” field with little cumulative systematic research (Snyder & Cummings, 1998), suffering from excessively broad conceptions (Cohen & Sproull, 1991), with the result that we are left with a confusing proliferation of definitions and conceptualizations that fail to converge into a coherent whole (Antonacopoulou & Chiva, 2007; Popper & Lipshitz, 2000; Dodgson, 1993; Garvin, 1993; Hawkins, 1994; Miller, 1996). There is limited agreement on basic concepts, and there are few attempts to provide integrative frameworks or to specify how organizational learning affects organizational performance.

Despite various conceptualizations of learning, and at the risk of oversimplifying the debate somewhat, it is possible to broadly sketch two distinctive perspectives on what constitutes organizational learning: an individual perspective that focuses primarily on how individuals learn, and a collective perspective that highlights the social and shared nature of organizational learning. More recently, the focus of research has shifted toward learning in social or organizational contexts, with a focus on how individual learning can be transferred into organizational learning. Here the tendency is to describe organizational learning in terms of organizational processes and structures such that learning is embedded in routines, policies, and cultures (Adler & Cole, 1993; Cook & Yanow, 1993; Huber, 1991), where learning is seen to occur as individuals converge on a set of shared understandings or norms of how that organization exists. Indeed, in some of their more recent work, Argyris and Schön (1996) insist that any theory of organizational learning must take account of the interplay between the actions and interactions of higher-level organizational entities such as departments, divisions, or groups of managers, a point that is echoed by Agarwal, Krudys, and Tanniru (1997) who note that, if the operational view of the organization is seen in terms of a collection of procedures, routines, management initiatives, norms, and cultures that will allow individuals to learn, then the objective leading to higher performance is a commitment to learning.

The suggestion here is that, if learning is to be harnessed for organizational purposes, clearly there exists a need for a supportive environment to facilitate this learning. This guiding framework would allow for interplay between individual and organizational level learning because it would represent organizational level entities and processes operated by individuals. Popper & Lipshitz (2000) introduce the idea of organizational learning mechanisms that are seen as institutionalized structural and procedural arrangements that allow for the interplay between individual- and organizational-level learning, because they represent organizational-level entities and processes on one hand, but are operated by individuals and can be dedicated to facilitating learning or to disseminating what

individuals and groups learn throughout the organization. This perspective allows one to simultaneously view the organization as capable of learning and of being able to be facilitated in building such capability. They conclude that individual- and organizational-level learning are similar in that they involve the same phases of information processing—collection, analysis, abstraction, and retention. They are dissimilar in that information processing is carried out at different systemic levels by different structures (Roth, 1997), and organizational learning involves the additional phase of transmission of information and knowledge among different persons and organizational units. Here again, the arguments lead us toward the possibility of distinguishing or describing organizations with reference to the architecture of their organization-led learning.

The Learning Organization Perspective

This portrayal of an organizational commitment to learning has launched an altogether more discordant debate surrounding what is variously described in the management lexicon as the “learning organization,” the “learning laboratory,” or “the learning company.” Although the terms *organizational learning* and *the learning organization* have often been used interchangeably, the broad body of evidence suggests that they are, in fact, quite distinct. Some of the more salient aspects of this debate on the learning organization are considered here.

Arguments in favor of the learning organization are predominantly normatively based and propose an “ideal type” to which organizations should aspire to compete effectively (Senge, 1990; Pedler et al, 1991). This normative argument suggests that organizational learning is based on a system of shared values and beliefs that shape how organizational members think, feel, and behave. This, in condensed form, is the “learning organization” as depicted in the literature. A central theme of this learning organization literature is that learning is intentional and that the organization, through its structure, culture, and systems, is designed to learn.

Some of the earliest proponents of the learning organization concept were Pedler et al. (1991) and Senge (1990). Pedler et al. used the term *the learning company* to describe an organization that facilitates the learning of all its members and continuously transforms itself, whereas Senge (1990) argued for the development of organizations where people are continually learning how to learn together. This theme of developing an organization’s capacity is followed by Redding (1997), who proposes that a company is a learning organization to the degree that it has purposefully built its capacity to learn as a whole system and woven that capacity into all of its aspects: vision and strategy, leadership and management, culture, structure, systems, and processes.

Such definitions point to an ideal type to which organizations should aspire, although they are remarkably unforthcoming on how this ideal state is to be achieved. Indeed, this has led to criticisms of the learning organization

literature as notoriously prescriptive, wherein learning is a catch-all phrase that means whatever one wants it to mean, or, as Hawkins (1994, p. 73) quips, “the thing that everyone is searching for, and that no-one seems to have found,” often resulting in what Peters (1992, p. 385) laments as the “maddeningly abstract or vague talk of learning organizations that perpetually falls short on the specifics.” Smith and Tosey (1999), on assessing the learning organization literature, suggest that, with absent capability and disposition for an organization to measure its progress, headway in substantive-wide scale learning organization development is seriously jeopardized. Instead, they propose that it is best to conceive of reaching the learning organization ideal as a social process rather than as a scientific one.

More recent developments in the learning organization literature offer a more promising, and perhaps more anchored, picture of this learning organization. For example, Goh and Richards’s (1997) describe learning organizations as those that identify and measure the essential organizational characteristics and management practices that promote organizational learning, whereas Solomon (1999) suggests that learning become a cultural practice that is affirmed through the development of a mission and value statements, an identification of workers with corporate aims, and the conceptualization of an organization as a site of ongoing learning. The latter point picks up on earlier work by Calvert, Mobley, and Marshall (1994) who concluded that, to become a learning organization, an organization must find ways to make learning more intentional and more systematic.

The Knowledge Creation Perspective

Kang, Morris, and Snell (2007) highlight knowledge as the most distinctive and imitable resource available to firms, which enables them to effectively employ, manipulate, and transform various organizational resources. This is not an altogether new concept. There is a growing body of research that suggests that the degree to which knowledge is acquired and used in organizations is primarily as a result of a conflux of interdependent influences of organizational processes including structural, environmental, and social dimensions, with an increasing focus on understanding the organization as a social community specializing in knowledge exchange (Conner & Prahalad, 1996; Nonaka & Takeuchi, 1995; Kogut & Zander, 1992). For example, Kogut and Zander (1992, p. 385) underscore the presumption that “the knowledge of the firm be understood as socially constructed, or more simply stated, in the organising of human resources,” or, as Drucker (1992) argues, organizations are fast becoming knowledge communities where knowledge is created, shared, and stored, thus compelling organizations to build continuous learning into their operating systems.

Huber (1991) was perhaps one of the earliest theorists to singularly adopt a knowledge creation perspective (as opposed to a change in behavior perspective)

to the organizational learning discussion. Interestingly, the knowledge management literature, built on similar premises, began to emerge very closely afterwards (toward the mid-1990s). In seeking to describe how organizational learning occurs and, building on earlier work by Daft and Weick (1984), Huber (1991) identified a number of processes associated with organizational learning: knowledge acquisition, information dissemination, information interpretation, and organizational memory. Acquisition refers to knowledge gained from monitoring the external environment and using information systems to manage, store, and retrieve information at will, carrying out research and development and carrying out training and development. Not only does the organization acquire external knowledge but it also rearranges existing knowledge and existing knowledge structures. Information dissemination refers to the process by which an organization shares information among its members and units, thereby promoting learning and producing new knowledge or understanding. There must be opportunities to use the knowledge, particularly in a group setting—such as through group-oriented tasks—to promote collective learning. Interpretation refers to the manner in which information is given meaning and a common understanding, which is then stored in the organization memory to be extracted for future use. Organizational knowledge can be well understood as the conflux of three essential elements: skills (technical, professional, and social expertise of organization members—the know-how or explicit knowledge of the organization), cognitions (information, ideas, attitudes, norms, and values shared by organization members, including the know-why or tacit knowledge of the organization), and systems (structures, procedures, and policies related to performing tasks, coordinating resources, and managing external relationships). Social relations are considered particularly efficient mechanism for sharing both tacit and explicit knowledge among individuals and that the key therefore is to understand and identify the relationships that facilitate knowledge flows and organizational learning. Qureshi (2000) views the diffusion of information as the organization's critical knowledge base and argues that this diffusion is affected by the learning processes that encompasses the individual's effort and the group and organization's collective experience. As such, mechanisms that generate information, transfer it, and use it form a vital component of the survival and ongoing development of any organization. He suggests that it is a matter of knowing how to learn, and to understand how knowledge is organized and shared. Argyris and Schön (1978) add that the experiences of others, the stories that they tell, and the understandings that they share all comprise the know-how that contributes to an organization's ability to perform and react to its environment. Thus, once again, the evidence suggests that the architecture of organization-led learning is of crucial importance.

At this juncture, we can now begin to draw together the key tenets underpinning the organization-led learning architecture. Leaving aside the dilemmas and contradictions inherent in delineating the subject matter under investigation, we can focus on some of the core messages. Clearly, there is general agreement

that organizational learning is in good currency or, as Argyris (1994, p. 1) notes, that “organizational learning is a competence that all organizations should develop.” As the environment for business becomes more complex, organizations are forced to reconsider how they have traditionally viewed and managed their employees. This inevitability has brought with it a realization that organizations need to build a supportive environment to facilitate learning at work. This is neatly summed up by Agarwal et al. (1997) who contend, “The inability of an organization to cope with uncertainty can often be attributed to a non-existence of an essential social and organizational infrastructure for individual and collective learning.” This ability to develop organizational capability through the architecture of organization-led learning may well be the more important factor in creating competitive advantage in the years to come.

The Buttress Pillars

Shared Vision of the Organization

Although rather hackneyed, the notion of shared vision nevertheless remains a highly important feature of effective organizational functioning, and most especially in the context of collective learning because, as Handy (1995, p. 54) pointed out, “No one is going to go through the ardours of organizational learning unless there is some point to it.” Around the start of the 1990s, organizations began to talk about the need for a corporate vision to mobilize employees and develop a shared understandings of what the organization represented. Senge (1990) describes a shared vision as a reinforcing process of increasing clarity, communication, and commitment that results in motivation toward a common goal. For many organizations, the development of this clear vision calls for a paradigm change to identify a new way of being for their organization—a shift from unilateral ideological visioning toward the development of collective intent and shared meaning. How to arrive at this focus is inherently more difficult and it is not altogether clear that precise definitions of this shared vision can assist the organization in this regard. Despite the lack of clarity, researchers continue to argue the absolute necessity for this shared vision and mission. Nonaka (1991) suggests that the key to the process (of learning) is personal commitment—the employees’ sense of identity with the enterprise and its mission, whereas Jones and Hendry (1992) note that where an organization provides a clear vision and mission, it will not only be competitive commercially, but will attract the best employees.

Goh (1998) reflects that, in the organizations that he studied, senior managers spent considerable time articulating a vision and creating employee commitment to achieving it. However, Garrick (1998) cautions that, despite the surface attraction of the shared vision ideal, such shared vision can easily become rhetoric for masking underlying conflict, or a way of obtaining employee compliance, through belonging to the shared vision. Orchestrating this supportive climate

for development (Iles, 1994) probably represents the greatest challenge for organizations.

Moreover, if the end goal is collective learning, then the importance of a shared understanding of what this entails, and the underlying principles on which this is based, is a critical first stage. Variation in this vision will necessarily have a ripple effect across the architecture.

Communication at the Heart of Learning

Communication as a theoretical construct has a rather lengthy pedigree in the management cannon (see Blake & Mouton, 1976; Mintzberg, 1975). Calls for increased and better communication across a range of domains are commonplace and intuitively one can find a strong resonance between effective communication systems and the development of strong collective learning practices. Weick (1991, p. 97), for example, states that “interpersonal communication is the essence of organization because it creates structures that effect what else gets said and done by whom.” Coopey (1996) highlights the increasing importance of communication, especially in posthierarchical organizations where, given the relative dearth of structural cues to behavior in the organizational learning scenario, people attempt to resolve the resulting uncertainty and ambiguity through intensified use of informal communications. In seeking to facilitate knowledge sharing in organizations and to reduce uncertainty, Slater and Narver (1995) similarly emphasize informal, frequent, and personal communication to facilitate the emergence of shared goals and ownership within the organization. Morley, Mayrhofer, & Brewster (2000) note that, in the modern organization, the importance of effective communication is emphasized by three factors: the increasing importance of information as an organizational function, the increasing recognition that it is only through exploiting employees’ ideas and talents that organizations will be able to compete and survive, and the need to convince employees that working for the organization is something that they should be committed to and to which they should devote their ideas, their energy, and their creativity. Concomitantly, it is also a difficult area for organizations, and the literature abounds with reports of obfuscation in corporate communications (Filipczak, 1995), information distortion (Larson & King, 1996; Gill, 1996; Janis, 1982), miscommunication, and problematic talk (Coupland, Giles, & Wienmann, 1991; Maltz & Borker, 1982).

A Collective Learning Structure

Clearly, the manner in which work and production or service are structured and organized are likely to have an impact on the forms of participation, and therefore opportunities for learning, available to individuals. Here, John Dewey’s work (1963) probably remains one of the most influential and still-relevant

expositions of the position of work as a vehicle for learning, personal growth, and active citizenship. Organization-led learning is thus premised on the development of a work system that allows for the interplay between work, knowledge acquisition and application, and knowledge sharing and learning. This suggests the development of a learning system that facilitates exchanges and diffusion of what is learned among individuals so that the members of the collective are no longer dependent on the original holders of the knowledge or skill (Kim, 1993; Tompkins, 1995; Crossan, Lane, & White 1999). Indeed, Simon (1991, p. 125) considers individual learning in organizations to be “very much a social, not a solitary, phenomenon,” or as Burgoyne (1995, p. 65) so eloquently notes, the critical moment in learning and meaning-making is not so much the lone individual encountering a hostile or friendly environment, but a meeting of minds to create joint meaning.

It has been suggested then that the organization should adopt a structure that strengthens the possibility of learning taking place (Duncan & Weiss, 1979; Galbraith, 1973; Hedberg, 1981; Nicolini et al., 1995; Shrivastava, 1983). Typically, structures vary between the traditional hierarchical structures and the more modern concept of smaller, autonomous, cellular ones. Certain basic requirements can be derived from the organizational learning literature: the existence of clearly defined responsibility and authority that is accepted; functional expertise that is understood and information that flows naturally and freely (less complexity and restrictive practices); a commitment to quality that is shared, accepted, and participated in by all organizational members, and not imposed; the sharing of information that is culturally reinforced and facilitated through available time allocation; an internal customer focus, understanding customer needs and anticipating potential problems or conflicts; and finally, a culture where people want to contribute to the organization’s success. Building on the work of Lave and Wenger (1991) and Vygotsky (1978), Engstrom (2004) draws attention to ways of thinking that emphasize how learning takes place in a social setting involving practices shaped by tools and resources, communities, divisions of labor, and rules, such that individuals and groups experience tension and creative problem-solving.

Although this reads as an eminently desirable list of attributes for any organization, once again there is little empirical evidence of how these are, or can be, achieved. However, some broad indications are provided, and these are presented here.

Reduced Hierarchy and Broader Jobs

There is general consensus that flatter structures perform more effectively than hierarchical organizations in terms of learning processes, where functional hierarchies are seen to act as barriers to effective learning (for further discussion, see Nicolini et al., 1995, and Fiol & Lyles, 1985). It has also been suggested

that bureaucratic organizations, designed under scientific management principles, are probably not flexible enough to adapt to environmental change (Mirvis, 1996). Kiernan (1993) expresses this scenario as the “post-hierarchical” organization that adopts a flatter, more open and organic structure, or as Slater & Narver (1995) suggests, an organizational architecture that is decentralized, with fluid and ambiguous job responsibilities and extensive lateral communication processes.

Reduced hierarchy is typically associated with increased employee involvement, where employees are routinely involved in decision making and in problem identification and resolution. Returning to Handy’s (1995) terminology, organizations that value learning and strive to promote learning at work start from an assumption of competence. Viewed thus, involvement is based on an individual’s ability to contribute to the organization’s performance rather than his or her rank or job and on the notion that individuals are more likely to embrace change when their involvement has led to a new way of doing things that has led to improved performance.

Teamworking underscores the essence of high performance work systems that advocate the adoption of a culture of continuous improvement and innovation at all levels in the organization, and the implementation of a range of work organization and human resource practices to sustain and develop this culture, particularly teamwork, employee development, quality consciousness, and flexibility. At a general level, it appears that the aggregate high performance work systems literature points to the need for a coherent set of HRM practices to underpin the cultures that support these systems (Huselid, 1995). In the context of collective learning here, it is argued that the interconnected nature of HRM systems requires that attention be paid to the requirement for learning across these systems. For example, if learning is a key job requirement, then this needs to be made explicit at the organizational entry stage, and the recruitment and selection practices should reflect this as a criteria for selection. Beyond this, job design criteria should recognize the requirement for learning at work and how this is best achieved, and the organization’s reward systems should include design features that promote learning and knowledge sharing. In essence, a commitment to collective learning must be designed into and reinforced by the HR systems that operate.

Multiskilled, information-integrated workplaces require fewer levels of organization hierarchy and lower formalization to manage employees. In turn, flatter, more responsive organizational structures provide not only more rapid responses to environmental change, but also provide employees with opportunities in which they can exercise new forms of skill, knowledge, responsibility, and commitment. As work becomes more abstract, requiring flexibility, manipulability, and analysis, employees experience new challenges and forms of mastery.

However, an invitation to participate, or indeed a presumption of involvement, suggests an environment where individuals can take risks and where mistakes

are seen as an inevitable part of the learning process. This is perhaps the most difficult “state of being” of all, particularly because most organizations are product/service driven, where mistakes can carry a high price. Our thrall through the literature found little discussion that could offer anything more than a normative approach to this critical organizational requirement, however.

Manager as Facilitator

A key theme underpinning the organizational learning discourse refers to the role of the manager in envisioning and managing what we describe as an architecture of organization-led learning. Slater & Narver (1995) argue that a manager’s ability to develop people is critical if organizations can hope to build up their learning capability. This, he suggests, requires that an organization invest in skills that deal with encouraging, motivating, delegating responsibility, and facilitating learning at all levels of the organization. The difficulty, of course, lies in the sometimes competing responsibilities of meeting the expectations of customers in relation to quality, quantity, timeliness, and cost, while concomitantly creating environments where internal creativity and continuous process improvement flourish (and, as implied earlier, where mistakes and errors are both expected and accepted as inevitable aspects of the learning process). Price (1995) similarly emphasizes the importance of facilitation skills, which he perceives as one of the most critical management skills that encompasses not just the ability to run good meetings and deliver training, but also the ability to work deeply with the defensive routines, the mental models, and the unwritten rules built into the genes of any organization.

One approach to facilitation suggests that managers should be perceived as coaches and partners in the learning process, rather than as the owners of, or the experts in, organizational learning (Slater & Narver, 1995; Nixon, 1996). This partnership approach is advocated by Adler (1992), who argues that the manager or leader must create conditions where collaboration can occur, and where solutions are generated through cooperation across the organizational hierarchy to facilitate learning and involvement. Thus, managers can no longer rely on functional specialization, but need to be able to acquire, develop, and cultivate new skills and capabilities, to take a more capacious view of the organization and its role in a dynamic environment. Releasing authority and control in favor of involvement and delegation is neither unproblematic nor desired in many instances and this form of operation has considerable implications for a range of broader HR systems and policies, including recruitment, reward, and work design (Mirvis, 1996; King, 1995).

A Team Approach to Work Design

Team working is an endemic feature of much of the organizational learning literature, although there is evidence that this team concept is somewhat

broader than simply designing jobs around a team structure. Fuller, Hodkinson, Hodkinson, and Unwin (2005) suggest that one of the defining features of “new capitalism” is the discourse on the need for workplace change and greater employee involvement, and the advocacy of new forms of work organization, such as self-managed teams, flexible working hours, and flatter organizational structures. For example, there are calls for a multidisciplinary team approach to generate effective knowledge and information sharing where knowledge and expertise, rather than job or rank, are the key determinants of a team’s structure. Other contributors, such as Slater & Narver (1995), Calvert et al. (1994), and Senge (1990) propose project-based teams drawn from various functional areas that will serve to enrich the thinking of each other. However, they isolate functional diversity and the management of cross functional teams as a key potential challenge for managers, as there may be some difficulty in developing common goals.

This team approach is suggested as a mechanism for emphasizing the enrichment and broad definition of jobs, providing employees with opportunities to tackle new problems, gain varied experience, and assume greater challenges. However, new learning, encouraged through establishing more genuinely participatory structures and processes and designed to value the role of employees in organizational success, must be facilitated and managed. This broadening of jobs is underpinned by a commitment to broad-based education and training opportunities to ensure that employees and managers are continually educated and trained in different skills to provide them a well-rounded professional experience. Teamwork among broadly skilled and knowledgeable employees, less fettered by the constraints of traditional hierarchies and spheres of responsibility, is seen to engender a heightened sense of empowerment, commitment, and collective responsibility. Slater & Narver (1995) extends the organizational learning paradigm further by arguing that a commitment to the learning process requires a commitment to learning through experience. This suggests that the agenda is one of learning rather than one of training. Of itself, this can require a considerable paradigm shift because investment in training is typically treated either as a cost reduction or an improved efficiency strategy—a learning agenda may not comfortably sit within either strategic perspective.

It is assumed that, by working in teams, employees bring their collective skills and knowledge to bear on problems and develop innovative ideas for the organization. Teams can evolve into communities of practice who share information and knowledge, and so the implication is that, to be effective, teams should be formed with employees from a variety of functional areas. Individuals develop practices by observing others, imitating them, and then adapting and developing their own particular practices in ways that match not only the wider community’s norms, but also their own individual sense of integrity and self. Indeed, Lave & Wenger (1991) argue that learning is an integral part of generative social practice in the lived-in world. Team working can also extend beyond the organizational boundaries and the notion of network teams across

organizations and between organizational subsidiaries is one that is gaining credence in the literature. This implies that there is potential to configure or structure the learning environment by the extent to which participants have access to, or can cross boundaries to, other communities of practice within or beyond the organization.

Conclusion and Implications for Research and Practice

This review has sought to bring some focus to the debate concerning the nature of learning as an organizational construct and, derived from the enfold-ing literature, has presented an architecture of organization-led learning. Though openly recognizing the overtly prescriptive or normative nature of this literature base (as opposed to being solely empirically derived), it was nonetheless possible to delineate a core set of factors that are used here to form the basis of this architecture. These included a shared vision, a learning structure, reduced hierarchy and broader jobs, a manager as facilitator, a team approach to work design, and communication at the heart of learning. However, despite the flourishing literature on organizational learning, and its impressive progress, it remains a difficult phenomenon in many respects. By way of illustration, we can address the implications of this both from a theoretical perspective, and from a practice perspective.

Implications for HRD Research

It is clear that there are certain conceptual problems concerning organizational learning and, although the notion of organizational learning is broadly recognized, there is no theory or model of organizational learning that is widely accepted. Against this backdrop, we offer the architecture framework here as a useful starting point in terms of how organizations can consciously conceptualize collective learning. However, until such time as this is scoped out and grounded in evidence-based research, its utility in explicating the link between organizational actions and learning is untested. To this end, we suggest that further investigation of the interplay between each of the architectural features is needed so that causal paths and relationship variables can be better explicated. For example, evidence-based research is needed to explore exactly how organizations can engender a commitment to knowledge sharing and collective learning. What types of communication systems can be directly attributed to an improved learning environment? How is a shared vision best developed in the context of collective learning?

Inevitably, an account of the kind here probably does contain an oversimplification of reality on some fronts. There is a danger that it reflects an overly static image of what the organization is, rather than a true reflection of the dynamism that characterizes organizational life. It is likely that several factors

will impact the willingness to move toward a collective learning mode of functioning. Underlying dimensions of trust, power, broader citizenship behavior, perceived organizational support and leader–member exchange, and time to absorb and act on new learning are likely to impact any organizational attempts to nurture collective learning, and depth investigations of these dimensions through case analysis are required so that we can better offer clearer guidelines for practices and so that managing an organization’s learning capability occurs by design rather than by chance.

Our model focused primarily on the internal contextual configurations that depict the learning architecture in evidence. However, it does not provide any deep insights into the means by which the external institutional environments, within which organizations are embedded, influence organizational learning. Thus, further understanding the nature of these nationally bounded external actors that shape organizational life both directly, by imposing constraints and requirements, and indirectly, by creating and promulgating new rational myths (Scott, 1987), could prove important.

Implications for HRD Practice

Developing an architecture of organizational-led learning has potential implications for HRD practice on several fronts.

The architecture is premised on the notion that learning is a valued organizational activity. This calls for a strategic orientation of learning such that it is embedded in the organization’s strategic development plan. Hamel & Prahalad (1990) have called for the development of “strategic intent,” which involves not only developing a broad vision of the future that is highly visible in the organization, but requires that this vision is shaped, defined, and executed through intermediate strategies locally. The role of strategy development and implementation is viewed as an integral and essential part of the learning process and of developing this shared vision, where strategy represents where the organization would like to be, and propels and guides the drive to get there. However, how often does organizational learning feature as a strategic consideration? Although it is wrapped up in the strategic capability requirement, we argue here that continuously drawing attention to the role of organizational-led learning in enhancing strategic capabilities is an important contribution in its own right. It draws learning more centerfold so that learning interventions fit the organization’s developmental trajectory and so that learning is at the cusp of strategic development.

The architecture model offers the practicing manager a cogent framework for understanding the core systems and processes that need to be orchestrated and managed to institutionalize learning in the workplace. The model points to a number of structural, configural, and systems elements within organization design that can be seen to enhance the capability for organizational learning

and that points to the interconnectivity between organizational form and design and relevant learning systems. Flatter hierarchies and more broad-based design, combined with facilitative management, are seen to be effective means of leveraging collective learning. HRD practitioners have a significant role to play in ensuring the institutionalization of collective learning through the systems, such as the development of mentoring and coaching systems to facilitate sharing learning, the development of project work or team work that provides a reasonable degree of variety, autonomy and flexibility to allow individuals to learn at work, the development of a knowledge-sharing culture that rewards such behavior, and the fostering of networks and alliances to support knowledge transfer.

Outside of a formal apprenticeship system, the idea of work as a medium for learning is a relatively recent one in organizational learning theory. However, work does not automatically provide such opportunities for growth and for learning. It can do, but not always. For many individuals, work is built on a set of routines that are contextualized within a framework of how they view the world. Where work is routine, it fails to provide any particular opportunity for us to challenge these underlying beliefs (double loop learning), to question what we do, and to develop as a result. March (1991) argues that a reduced variation in task performance is likely to reduce the potential for learning. Moreover, he cautions that an overt reliance on reutilization or standardization of “best practice procedures” may limit scope for action because the preoccupation is with “doing things right” rather than “doing the right thing.” The provision of work that represents a valuable source of learning requires imaginative responses from HRD practitioners in terms of how work is structured and individuals deployed. We would argue that effective organizational and collective learning requires “space for learning,” that is, a period of reflection that allows individuals time to think, to observe and to share, and combine or exchange knowledge and ideas. Individuals must have access to the learning resources of time and reflection so that they can take advantage of this scope of action (Ellström, 2001). However, time is a premium organizational resource that is often in short supply in the current environment, and so this critical requirement for space for learning can be difficult to satisfy.

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