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Organizational Learning through Evaluation: a Challenge for Libraries

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【摘　要】

本文檢視組織學習理論和圖書館評鑑相關文獻，並進行系統性整理——耙梳重點，釐清脈絡，摘取經典，啟發思辯，旨在促使相關研究者更加瞭解組織學習與圖書館評鑑兩者之關聯，循其軌跡，觀其影響，提出更為合理有效之理論模式。

從圖書館評鑑的方向思考，評鑑的過程和功能理應涵納組織學習的意義，試圖營造圖書館成為學習型組織。為達此目的，評鑑設計者、評鑑執行者、評鑑決策者和被評鑑之組織都應具備共識，從制度面、領導面、執行面和學習面

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自我檢驗，期改善評鑑水準，奠定組織良性體質，裨益於圖書館永續發展。

【Abstract】

This paper examines some of the current discussion in the literature of organizational learning theory and library evaluation, from which to derive a better understanding of how library evaluation can assist in the improvement of libraries as learning organizations.

The theoretical work of Argyris and Schon (single-loop and double-loop learning) and Crossan, Lane and White (the cognitive processes of intuiting, interpreting, integrating and institutionalizing) was considered, together with that of later theorists. Emphasis in the literature is collectively placed on the role of individuals within organizations, and how the organizations themselves should be a product of the creativity of those individuals and the enabling organizational structures.

Library evaluation plays or should play a critical role in both enabling libraries to become learning organizations in this sense, and sustaining such continuing organizational development. In general there has been insufficient attention to how library evaluation can be effectively integrated in the library as a continuing planning and responding process. A more sophisticated approach must be taken, especially in view of the increased challenges and responsibilities which academic libraries are now facing.

關 鍵 詞：組織學習；學習型組織；圖書館評鑑；圖書館管理
Keywords：Organizational learning; Library evaluation; Learning organization; Library management

Introduction

The complexity of organizational learning is manifest in the existence of various complementary literatures such as organizational learning, organizational change, organizational learning as a response by business to its environment, effectiveness and evaluation, and how this might relate to a method of organizational change (Dodgson, 1993). There is however still much to be learned and

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explored (Hansson, 2006). Libraries, for instance, as information organizations, must themselves be able to learn from the experiences (Clayton, 1996; Nevis, Dibella & Gould, 1995). The key point here is that library organizations need a tool for examining their changing environment, unearthing problems, facilitating learning and change, and enhancing the effectiveness of their organization. A solution for this may be library evaluation. The need of the study is underscored by the absence of highly organizational learning, in nearly all library evaluation studies (Clayton, 1996). This article therefore examines some concepts and current discussions of organizational learning theory and library evaluation. These discussions are supportive for constructing a conceptual framework of the relationship between organizational learning and library evaluation.

Nature of organizational learning

Organizational learning has been the subject of theorists from as early as 1967 and is loosely defined as being the process by which organizations come to knowledge about action outcome relationships (Duncan & Weiss, 1979). Since this time it has come to be accepted that organizational learning is a most useful perspective in describing organizational change.

Within libraries individuals are expected to contribute what they learned so that learning can take place at the system level collar and at the individual level and these types of learning need to be combined into some total approach to increasing organizational capacity (Marsick et al., 2000). All this can be considered as environmental scanning, collecting information and considering what the organization should do with the environmental stimuli. In general the organization needs to adapt to the stimuli through organizational learning, allowing the organization to progress to a higher level of adaptation. This is a process which involves, as we have said, structural and cultural improvements if the information flows are to yield fruit.

Miller (1996, p.486) defines organizational learning as “the acquisition of new knowledge by actors who are able and willing to apply that knowledge in making decisions or influencing others in the organization”. An important exponent of contemporary thinking is Senge (1990, p.12), who defines organizational learning as “the process through which managers seek to improve organizational members’ desire and ability to understand and manage the organization and its

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environment so that they can make decisions that continuously raise organizational effectiveness". Very much there is a humanistic perspective entering in here requiring that organizational learning conceptualizes almost in spiritual terms.

The work of Argyris and Schon (1978), and which will be referred to later in detail, basically takes a system approach to organizational change - a change which relies on enhanced performance, which includes cognitive and behavioral skills (Leroy & Ramanantsoa, 1997; Pedler et al., 1997; Rosenstein & Levin-Rozalis, 2002). It is certainly important to see actual measurable change but it is the process by which this change occurs, that is the psychology and sociology of the change, which must be the central focus in understanding complex organizations. Theorists have hardly been aware of this need; however the espoused dogma of placing learning theory "more centrally within the theory of planned organizational change" (Hendry, 1996, p.621) is unsatisfying.

To understand fully how organizations learn, it is essential to distinguish two types of learning, namely single-loop learning (adaptive learning) and double-loop learning (generative learning). According to Argyris and Schon (1978), when organizational learning involves error detection and correction, an organization can carry on its present objectives. The detection and correction process constitutes single-loop learning. Doubleloop learning occurs when an error is detected and corrected in ways that involve the modification of an organization's underlying norms, policies, and objectives. Both types of learning emphasize problem-solving. The main difference between the two is that double-loop learning does its job "by examining the underlying values and policies of the organization" (Argyris, 1993, p.5) whereas single-loop learning does not. Leeuw and Sonnichsen (1994, p.4) also indicate that one of the conditions for the existence of organizational learning is the organizations "must be able to detect significant deviation from the norms and procedures that it [the organization] follows, so that, it can initiate appropriate action to correct any deficiencies." Bond (1997, p.95), however, points out that "loops" theory has two limitations: it entails that all organizations must process through the stages successively; and it ignores the influence of the unstable external environment as well as changes in the staff of organizations. In fact, double-loop learning is rare in most organization (Cousins & Earl, 1995; Forss, Cracknell

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& Samset, 1994). Dodgson has found that very few organizations were able to engage in double-loop learning, "general contention is that organizations ordinarily fail to learn on a higher level and they contended that organizations tend to create learning systems that inhibit double-loop learning, calling into question their norms, objectives and basic policies" (1993, p.389). This is because organizational personnel and leadership always affects the occurrence of double-loop learning (Cousins & Earl, 1995). Unless the leaders show consistent double-loop learning and encourage their members to do so, double-loop learning will not be credible (Argyris, 1993).

Nevertheless this is not a reason at all for dismissing the important contribution of single-loop and double-loop learning. It is a concept, as already mentioned, that allows incorporation of individual mental models or new collective perspectives (Kim, 1993), and most importantly recognizes that double-loop learning is the more desirable level of organizational learning and is most likely to emerge when an organization interacts with its environment as some type of open system (Duncan & Weiss, 1979). "Evidence to support the existence of double-loop learning might include observations that organization members have altered existing assumptions or perspectives that guide the organization and its programs" (Robinson & Cousins, 2004, p.5). In addition, organizations only begin to search for organizational change when problems are unearthed or when gaps between performance and expectations are huge (Hedberg, 1981; Marcum, 1996). Some organizations however suppress any movement towards double-loop learning (Clayton, 1996) and this is precisely why most learning organization theorists want to include communication processes by which this progression to double-loop learning might occur.

Organizations build their own learning systems in terms of producing organizational routines (Carley and Harrald, 1997; Carroll, 1998; Fowler, 1998; Jensen & Rasmussen, 2004; Levitt and March, 1988). In the context of business, organizations learn through a process by which their members acquire new skills or knowledge to enhance organization performance (Crossan & Berdrow, 2003; Rosenberg, 2001). Ortenblad (2005) suggests that theories and knowledge in general are metaphoric and implies that organizations as such can learn. We may obtain more information with respect to how organizations learn through identifying the characteristics of organizational learning. Watkins and Marsick (1996, p.10) identify these as follows:

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- Learning organizations focus on organizational learning and transformation; it is not enough for individuals to learn.
- Structures and systems are created to ensure that knowledge is captured and shared for use in the organization's memory.
- Leaders and employees at all levels think systematically about the impact of their decisions and work within the total system.
- Learning is built into work structures, politics and practices.
- Learning is transformative in some way, although it is likely that some new learning will also be adaptive.
- Learning has greater impact when it involves a greater percentage of the employee population.
- Organizational systems and politics are structured to support, facilitate, and reward learning for individuals, teams, and the organization.
- New measurement systems benchmark current knowledge and culture, and monitor progress toward becoming a learning organization.

Crossan, Lane & White (1999) provide a "4Is framework" (intuiting - interpreting - integrating - institutionalizing) for organizational learning. This framework is focused on the tensions between assimilating new learning and what has already been learned. More specifically the framework deals with thinking processes which can take account of individual group and organizational communication structures, flyovers, and general organizational learning climate (Crossan, et al., 1999; Dutta & Crossan, 2005). Intuiting for example is an individual process which can happen also within the context of a group. However it is the journey towards institutionalization that is the important organizational level concept. Most critically before learning processes operate backwards and forwards on these three levels with intuiting of the individual level and institutionalizing at the organizational level (Crossan, et al., 1999). This flexibility makes it a most attractive conceptual framework for incorporation into any research and theorizing about organizational learning processes and structures. One example is how even forced behavioral change can lead to changed cognitive ideas, and how this can enable an organization to build a rational system for dealing with the environment (Leroy & Ramanantsoa, 1997).

DiBella and Nevis (1998, p.28-29) conceive of organizational learning as a series of three processes: (a) knowledge creation or acquisition, (b) knowledge dissemination, and (c) knowledge use.

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They call this series of three processes "the organizational learning cycle" and consider that all organizations require the three processes in the cycle. Senge, in his book, The Fifth Discipline (1990), highlights the components of organizational learning in terms of five disciplines: system thinking, personal mastery, mental models, building shared vision, and team learning. These disciplines comprise a useful structure for thinking about modern organizational effectiveness. Marcum (2001, p.102) particularly points out that "system thinking is a way of perceiving and thinking about how things work. It involves thinking more holistically about all the components of the library, from its facilities and technological infrastructure to its staff, its users, its parent organization, its functions and processes, its suppliers, and the broader purposes comprehensively."

Individual learning and organizational learning

Other theorists place more emphasis on the role of the individual in organizational learning. Espejo et al. (1996, p.190) argue that organizations need to do two things in order to learn, "they must focus individuals' capabilities on shared concerns and find mechanisms to enable them to co-operate." Allan (1999, p.11-12) also indicates the importance of individual learning: "While individual learning is very important and underpins organization's development, team learning appears to be crucial for organizational learning as it enables the learning from individuals to be shared and refined." Argyris (1999, p.305) predicts that effective learning will take place (1) if individuals hold as governing values valid information, informed choice, and personal responsibility to monitor their effectiveness; and (2) if they accompany these governing values with action strategies of advocating, evaluating, and attributing that are crafted to satisfy the governing values. Then they will create consequences that facilitate learning and that reduce organizational defensive routines in ways that the reduction persists. "People choosing to act on unexpected discoveries often do so to challenge the typical expectations of corporate life, experiencing greater professional satisfaction and integrity" (Friedman, 2002, p.70). In other words, the more individuals learn the more chances their organizations have of gaining success.

It is always the difficult to move from individual learning to phenomena that arise at the level of the organization. Crossan et al. (1999) refer to this as shared

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understanding by members of the group involving continuing conversation, finally arriving at institutionalization which is the leveraging of the learning of individual members. Indeed the contribution of Senge, relative to this study is he is consideration of the role of leadership in aligning the vision and purpose of the organization (Marcum 1996). Senge himself refers to the work of Argyris and Schon, inserting in a sense of the concept of people as being active participants in shaping their reality, the future of their organization. The individuals must see that "their own actions create the problems we experience" (Senge, as cited in Phipps, 1993, p.22).

The learning organization then does require a more progressive and more adaptable learning type of structure (Fenwick, 1998), to allow the integrated articulation of management level, individual level, and team level. The first detection of an environmental stimulus can occur at any level but there needs ultimately to be a collective consideration so that the organization as a whole can learn and move forward (Bennett, 2001). Organizational learning then is best thought of as a continuing process which is occurring at all levels within the organization, involving different interaction and networking and linkages. It is very much a holistic type of development which very much allows the creative free flow of information, and most importantly an organizational culture which allows this type of behavior.

Thus the humanistic approach to human resource management and organizational culture does seem to be essential. Senge (1991; as cited in Fenwick, 1998, p.143) stressed the need for organizations to give workers the ability to expand their capacity to bring about results in an environment where people can continually understand how better to coordinate together. Naturally this is exceedingly difficult and any type of movement towards this type of organization will require organizational cultural and structural changes, as well as the enhancement of employee satisfaction and the motivation. Even moving towards becoming a learning organization is a learning organization in itself necessarily involving quite a deal of application of resources and a reorganization of how people are interacting together (Carnall, 1999).

In many analyses then the individual remains the key. Organizations simply must "give their members access to information and encourages them to reflect on their own values, beliefs, and assumptions at the same time that they process this information and act on their

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newly constructed knowledge" (Torres et al., 1996, p.30). According to Argyris (1999, p.183), "the ones who learn fast are those who are willing to inquire into their defensive actions, to take risks, and to experiment with new ways of behaving."

The emphasis on the individual as a unit of learning and organizational change though does have some limitations. All theorists recognize that just because an organization is the cumulative result of individuals it does not follow that organizations do not have cognitive systems and memories (Hedberg et al., 1981). Even Argyris and Schon fully recognize that organizational learning must proceed as an outcome, concept of process that is beyond what specific individuals made do. It seems then that there is little escape from the idea of a learning organization as involving, necessarily, transcendental systems and processes, that are supra-individual. But the required superstructure remains responsive and enables the multi-directional tension between the individual and the organization. Indeed more advanced theorizing suggests that organizational learning and change is actually the progressive outcome of a very dynamic process, involving forwards and backwards tension, which has always been the contention o f Crossan, and her 4Is framework.

Factors affecting organizational learning

Organizational learning is a complicated concept which relates both to individual knowledge structure and to attitudes towards learning. It is evident that there are many factors affecting the ability of organizations to learn. Many advanced theorizing suggests that organizational learning and change is actually the progressive outcome of a very dynamic process, involving forwards and backwards tension, which has always been the contention of the 4Is framework. A typical writer is Nevis et al. (1995, p.79-84) who list ten factors that facilitate organizational learning:

- Scanning imperative - organizations seek information about the external environment in which they function.
- Performance gap - the differences between targeted outcomes and actual performance often lead organizations to understand that learning needs to occur or that current procedures are not working.
- Concern for measurement - the utilization of appropriate quality measurements is important to organizational learning.
- Experimental mind-set - the more organizations can organize guided experiences, the more they will learn.

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- Climate of openness – people need freedom to express their opinions through legitimate disagreement and debates.
- Continuous education – traditional training and development activities should be ongoing.
- Operational variety – organizations that support variation in strategy, process, policy, structure, and personnel are more adaptable when unforeseen problems arise.
- Multiple advocates – the greater the number of advocates who promote a new idea, the more rapidly and extensively organizational learning will take place.
- Involved leadership – only through direct involvement that reflects coordination, vision, and integration can organizations' leaders obtain important data and provide powerful role models.
- Systems perspective – the key people of organizations must look at the relationship between their internal systems and the real effects of their actions.

Other writers take the obverse of the coin, the barriers to organizational learning especially because more organizations have failed succeeded in the attempts to become learning organizations (Garvin, 1993). They do not have a commitment to organizational learning and this can occur simply because organizations have been fragmented into small competing units (Bennett, 2001; Clayton, 1996) - the concept which must resonate with experienced librarians. Senge also recognizes individual competition and negative mental models and product orientation as forming limitations to organizational growth and change (Senge, 1990).

Organizational learning rarely then proceeds smoothly, with organizations sometimes changing in an irrational rather than a rational way. Once reason for this is the simple fact that since people control organizations political factors are always part of the context. Indeed powerful members of an organization, such as top administrators and opinion leaders, may decide whether to change, what should or should not be changed, and when to change. The interventions of top administrators may determine the role of organizational learning in facilitating and furthering organizational change. In addition, Rhodes, et al. (2008) suggest that organizational learning processes are important in the integrated knowledge transfer framework of the organizations. The management members can utilize their limited resources to improve organizational learning levers for more

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effectiveness in the knowledge transfer.

Thus it would be in error though to take the view that all political change behavior is counter-productive. According to Roberts and Rowley (2004, p.87), "politics is often seen as a negative but can be equally viewed as necessary at a personal level, a decision-making level and at a structural level within organizations, as it engenders competition and can lead to change." Nystorm and Starbuck (1984) assert that if organizations' successes are not the result of decision-making based on standard operating procedures, the organization's managers will be deterred from seeking new ideas. Hall (1974, p.15) also highlights the importance of the organization's internal environment for organizational learning by asserting that organizations facilitate the utilization of learning if they are "successful in engineering the work environment and the qualities of the learning process."

Once organizational frameworks are seen in political terms then the concept of leadership and specific development always follows, with responsibility being placed upon management (Hendry 1996; Preskill 1994). Naturally the application of this idea to the library concept is one that demands to be heard; however obviously there is also great complexity. Lipshitz et al. (2002, p.94-95) argue that organizational learning requires the existence of organizational learning mechanisms which "are necessary but not sufficient for generating productive organizational learning. The quality of organizational learning depends on additional facets of organizational learning (cultural, psychological, policy, and contextual), which facilitate or inhibit learning."

Leadership in any organization then involves the use of political power (Coopey & Burgoyne, 2000), and this is certainly the case in the context of libraries. The exercise of this power, usually in a top-down manner, tends to become accepted by the organization and entrenched. O'Connor and Morrison (2001), in a study of comparison of situational and dispositional predictors of perceptions of organizational politics, found that variations in perception of organizational politics could be mainly attributed to organizational climate, a fairly new finding in terms of the existing literature. However the causal relationship, if any, between organizational climate and the perceptions of organizational politics could not be determined.

This whole area of leadership, particularly in its application to libraries striving to achieve organizational learning is vast. Many writers call for

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transformational library leaders, anxious for some type of educational and social change, particularly since such concepts are widely accepted in the business literature (Day, 1998; Lopez et al., 2005; Phipps, 1993; Ulrich, Jick & Glinow, 1993). The commitment and the behavior of via library director has always seen as being important, particularly in the need to construct an organizational learning culture, which will be returned to the later (Mohrman & Mohrman, 1993). In the context of these fairly ready criticisms is the need for improved research into just how a library leader will be able to influence library development (Albritton, 1995). There is an underlying belief that seems in literature that the leadership transformational model seems to have the most potential if organizational effectiveness and learning is to be achieved.

Many writers talk about shared vision in some sort of amalgamation of the visions of individual people, the concept which Senge has popularized (Camarata & Barker, 1998). Some writers complain that library leaders have not used for example new technologies to achieve new structures within the organization (Phipps, 1993). These types of concepts though are at odds with the commonsense observation that many successful organizations and different types of leaders, and that the areas within the business literature a substantial body of writing which rejects the need for a visionary transformational leader. In some ways the literature has moved on past this type of simplicity.

In summary then organizational culture is seen in the literature as an underlying requirement if individual learning is to be energized, and transformed into building a learning organization. There has to be an appropriate culture and method of retaining learning and “transferring new ideas to individuals” (Ulrich et al., 1993, p.55). The culture is supported by the process and process supports the culture (Kofman & Senge, 1993; Rowley, 1997). Thus it is critical that an appropriate environment be established and maintained in this involves “creating processes that support employees at efforts to reflect on their experiences, discussing and analyzing their efforts” (Preskill, 1994, p.292). Ideas such as collaborative problem-solving, clustering of small groups, managerial decisions being made with input from appropriate staff members, and diverse knowledge structures however have mainly arisen from theoretical conceptualization of an envisaged process (Forss et al., 1994; Marcum, 1996; Oldroyd, 2004).

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Organizational change and organizational learning

"Any organism that is growing and changing is learning" (Mink et al., 1993, p.8). In order to adapt to the more complex and more dynamic environments, organizations must "have a special need to be able to learn from experience. They need the capacity to reassess and change themselves in the respects of culture, norms, objectives and policies in order to respond to increasing change in their environment" (Clayton, 1996, p.28). Alderfer and Brown (1975, p.217) suggest there is a process of "learning from changing and changing from learning". Wenzler and Chartier (1999, p.375) note that "successful organizations are not trying to respond to this challenge by predicting the future, but are developing their ability to continuously learn and adapt to changes in their environment. This ability to adapt requires the organizational ability to learn." Consequently, it is important to understand how organizations learn as well as how they change. "Without full awareness and appreciation of current assumptions about management, organization, and learning, it is not possible to grasp what is being done well and what might be improved or changed" (Nevis et al., 1995, p.84). Clearly, "when organizations are seen as cultures, they are seen to learn through activities involving cultural artifacts, and that learning, in turn, is understood to entail organizations acquiring, changing, or preserving their abilities to do what they know how to do" (Cook & Yanow, 1996, p.452).

Organizational learning means changes in terms of what the organization recognizes and how it takes action (Forss et al., 1994; Watkins & Marsick, 1992). Preskill (1994, p.296) asserts that the major impact of organizational learning on organizations is "systemic cultural change", and this impact is extensive and permanent. Roffe (1999) describes this cultural change as a commitment to continuous learning. Such a commitment is required if any innovation is to take place. Organizational innovation will be enhanced if there is a supportive learning climate in the organization and innovative ideas can benefit organizations by providing a physical manifestation of dynamic capability (Lewis & Moultrie, 2005; Shipton et al., 2005).

Thus far then the literature recognizes this need to collect knowledge and share and manage it. However this type of collaboration often exceeds the capacity of an organization in its present form and this is exactly why structures and cultures must be changed (Bhat,

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2001; Lahti & Beyerlain, 2000; Lloyd, 1996; Stewart, 1991). It is very much how people are going to actually meet, get it together, and develop new information by being creative, that is by real participation in the function of the organization (Billett, 2001). Importantly, at the heart of this improvement, is a cultural process not some sort of new communication technology (Gumbley, 1998).

Despite the humanistic cultural emphasis on the literature there is a large body of research which tries to build particular types of knowledge architecture at and these are selected in order to match the organization's particular strategic objectives (Stewart, 1991). Usually these systems revolves some sort of storage and access process (Offsey, 1997; Rowley, 1999), and all employees have access to this. Often this is associated with a flattening of the organization and a consequent empowerment of operational management at distances further from the centre (Hankinson, 1999). As will be seen in the study data this type of development has usually not occurred within small academic libraries.

Evaluation and organizational learning

According to Weiss (1998), evaluation can provide an examination of old theories of intervention and an opportunity to help build new ones, because evaluation occurs in a setting where something changes the clients' knowledge, attitudes, or behavior. Evaluation is synonymous with feedback and it is the link between performance and learning structures (Allan, 1999; Forss et al., 1994; Hansson, 2006; Jenlink, 1994; Stone, 2001). Most organizations however fail to evaluate the impact and the return on their training and learning investments (Brinkerhoff, 2005). Torres et al. (1996, p.27-28) indicate that "there is no other function within an organization that has more potential to contribute to organizational learning than evaluation." The key role of evaluation in organizational learning is to determine how the existing organization learns (Cousins & Earl, 1995), including what framing mechanisms it uses to interpret and interact with the internal and external environments, what active memory it draws on in the operations of the organization's work, what knowledge structures it commonly uses, and how the organization develops both individuals and itself collectively to meet changing demands (Jenlink, 1994).

"Evaluation has evolved in a way that is conducive to transaction and aims at learning. Evaluation plays the role of exposing information and knowledge to the organization in order to make that

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knowledge actionable. Thus evaluation serves an important function in building learning organizations by enabling them to understand, create and preserve their own organizational knowledge" (Rosenstein and Levin-Rozalis, 2002, p.17). Many evaluation systems however "emphasize error rates and limiting the number of mistakes, further creating a culture where denying errors is in the individual's best interest" (Giesecke & McNeil, 2004, p.56). Olausson (1992) advises us to consider whether evaluation results have contributed to the primary activity of evaluation. Torres and Preskill (2001) take evaluation from the traditional approach to an interpretive perspective - evaluative inquiry. In evaluative inquiry, evaluation becomes part of the process of organizational learning and change. In a study of the relationship of evaluation and organizational learning, Forss et al. (1994) found that a traditional evaluation system builds on learning through involvement and helps to indicate how to do things in an efficient way. However, such a system cannot inform the organization of innovative directions or the means by which such progress could be made. The solution for this problem is the design of an evaluation system which uses the concept of learning through communication. Such a design may help to develop an innovative context for the organization's members (Rist, 1997).

Role of evaluators

The role of evaluators is vital to an evaluation, and may have a great impact on organizational learning. Cherin and Meezan (1998, p.3) argue that "evaluation should be conceived and implemented in a manner that provides both a learning experience and a model for organizational learning: evaluations and the ways in which they are performed must be viewed as 'learning collaborations' between evaluators and human service organizations." Jenlink and Torres (1994) assert that the role of the evaluator is mainly to make clear the organizational members' learning environment. The evaluator also may help the organization's members to "clarify and understand organization's culture and value of learning, design the organization's information system, mediate the information flow, facilitate the transition of information to knowledge, and facilitate the process of informational reflection and inquiry." Preskill (1994, p.296) explains the importance of an evaluator to organizational learning, "for external consultants, ... not only designing and conducting the evaluation, but staying with the organization to plan and

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implement the change made as a result of the evaluation ... understanding the organization's business and strategic plans and being able to access the channels of communication of the organization." For evaluation to succeed, an openness in administration style in the organization and a willingness to change are required (Williams, 1983, p.172).

Rosenstein and Levin-Rozalis (2002, p.10) argue that the evaluator "has to help the organization reflect and learn via providing new experiences, new interactions or new information or at least new ways of looking at old information in addition to being able to reflect and learn alone or with selected stakeholders. Stakeholders then act by improving, developing or disseminating their programs." "The evaluator is responsible for the procedures of learning - providing tools and monitoring the ongoing learning" (Rosenstein & Levin-Rozalis, 2002, p.14). Legge (1984), however, cautions that evaluators may also inhibit the implementers' potential learning, because the implementers may hope to avoid the risk of negative results from the evaluators and may undermine the evaluation process. The responsibilities of evaluators need to be defined and confirmed which allow the evaluated to be an equal partner. Table 1 shows the collaborative roles for evaluators.

The evaluator then has to help the organization reflect and learn via the provision of a new experience.

Table 1　Collaborative roles for evaluators

Evaluator Role	Major Focus	Intended Outcome	Methods/Actions
Educator	Teaching	Inform, motivate	Cues in on teachable moments
Consultant	Enhancing use	Improve the program	Facilitates understanding
Interpreter	Revealing underlying assumptions	Represent multiple perspectives, promote change	Creates holistic, comparative perspective of environment
Mediator	Brokering information	Promote empathetic and responsible decision making	Raises and represents issues to those in authority

Source: Torres, R. T., Preskill, H. & Piontek, M. E. (1996). Evaluation strategies for communicating and reporting: enhancing learning in organizations (p. 40). Thousand Oaks, CA: Sage.

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The evaluator among use reflection and phenomenal logical interviews and observations so that they can truly understand what is occurring in the organization and how it might further be assisted to become a learning organization (Rosenstein & LevinRozalis, 2002). It is the depth and extent of the joint reflection and learning that will determine the usefulness of the evaluation. But there must be an alignment between the evaluator and the library, and the whole process must be energized by dissatisfaction on the part of the library (Cherin & Meezan, 1998). Fundamentally the whole situation relates to the attitudes of library workers, that is, people problems and human environmental problems (Preskill 1994; Williams, 1983). The end product cannot be measurement of goals and objectives which have been developed by the evaluator and intended primarily for outside audiences (Cherin & Meezan, 1998). Indeed the evaluator must stay with of the library and help to plan and implement the changes that is the evaluator should actively engage in the organization and truly involved the staff members (Cherin & Meezan, 1998; Forss et al., 1994; Preskill, 1994).

Pressure of change

In the present era of digitized information, libraries face a remarkable change in their services, especially libraries of institutions of higher education. At the same time, libraries are under increasing pressure to reduce and manage expenditure more effectively. This is the only way to meet changing customer expectations, improved access, the need for higher levels of performance particularly in respect of the demands of market place economics (Fowler, 1998; Rowley, 1997). Clearly “if ever there was a time when libraries needed to adopt organizational learning it is now” (Clayton, 1996, p.36).

Stueart and Moran (1987, p.226) conclude that there are several basic aspects of the nature of libraries that will determine how a particular library will respond to the pressures for change: (1) direction - the purposes and responsibilities of the library, (2) people - their attitudes and motivation, (3) structure - the overall library, and (4) technology - its influence on the library. A library is a living organism and it must respond to changes from the outside environment. In this context, the aspects mentioned above may be considered as a set of indicators that could be examined by library staff or by external evaluators

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with a view to ascertaining how a library is interacting with its external environment.

Since a university library is located in an academic environment and the library itself is the center of knowledge, available and abundant resources resided in the work environment, which was an enhancer for librarians to engage in self-directed learning activities. The learning process was not independent of context. Some contextual factors, both at the organizational level and individual level, facilitate or constrain learning. At the organizational level, these factors include the civil service system, leadership style, relationship between management and employees, working/learning climate, the level of position, and the spatial environment. At the individual level, motivation, personality, and family factors were identified.

Reviews of library evaluation

Library evaluation, in one form or another, has been occurring in an organized way for some time. Like all public and private sector services libraries are called upon to justify their expenditure, and for this reason are interested in efficiency and quality measurements (Haynes, 2004; Kumbar, 2004; Powell, 2006). In this sense they are part of a global and competitive environment.

As Wallace and Fleet (2001) indicate, although there has been recognition of a range of different types of library evaluation, and increasing sophistication in the actual tools of evaluation, there has been insufficient attention to how library evaluation can be integrated into the library as a continuing planning and responding process. Considerable attention has been given to models and techniques such as standards, questionnaires, and performance indicators for conducting the evaluation, rather than to the actual influence of the evaluation on the library and its stakeholders

Knightly (1979, p.174) identifies four types of library evaluation. (1) Effort evaluation pays attention to the resources put into the library, such as facilities and funds. (2) Process evaluation focuses on the activities the library conducts for its services, such as referencing and cataloguing. (3) Effectiveness evaluation emphasizes the outputs of the library, such as users' feedback. (4) Impact evaluation concentrates on the assessment of benefits, with reference to the value created and the costs saved by the library.

The services libraries offer are major indicators within a library evaluation

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(Calvert, 1997a, b). Investigation of user satisfaction is a common way to measure the quality of library services (Cole, 2000; Cullen, 2001). Nevertheless, though it is important to library evaluation, user satisfaction cannot be regarded as the only indicator of library services. As Quinn (1997, p.361) describes, "library services can be improved by measuring not just the users' perception of service, but users' service expectations." Thus library evaluation should not be limited to only one or two indicators. More attention needs to be given to non-user-oriented dimensions such as management and finance. Alemna (1999, p.245) states that "the performance of a library is evaluated primarily in terms of effectiveness and efficiency. Evaluation is also thought of, as weighing the goodness of results of a library service against the resources required."

Some research has found however that only about 60% of the evaluation recommendations were ever implemented in some libraries only implemented 10%. There were just too many local differences, and too many differences involving different staff approaches. For any type of evaluation to succeed there has got to be openness in administrative style and "willingness to change and these are often lacking in library administrations" (Williams, 1983, p.172). The whole problem is in the desire to standardize and improve the library management and effectiveness of the evaluation tools simply go back to the old check list approach and ignore human processes (Albritton, 1995).

Research into models of library evaluation, and how such models might serve the monitoring and development needs of libraries is therefore a matter of ongoing concern. The research literature in general is increasing, and does have a number of emergent themes. These include the need to focus on use outcomes, the need to use qualitative measures (Hernon, 2003; Haynes, 2004), a recognition that library usage is changing (Kyrillidou, 2002), and that libraries need to be considered as part of their context and community (Haynes, 2004; Kumbar, 2004). The results of some library evaluation models, as applied, indicate that academic research is not really seriously focused on an understanding of people's information needs and behavior-discouraging libraries from engaging in reflective practice, and in general condoning a retreat to safer qualitative methods which may not reveal surprising results (Canen & Oliveira, 2000; Haynes, 2004). The whole point here is that as libraries see their mission as providing more comprehensively for the users. The perceptions of these users, and

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all stakeholders, must be taken into account in the design of library evaluation models.

In the past, models of library research simply measured the quantity of services provided through some descriptive statistical method, and then this was applied to standards and nationally agreed guidelines. This could include for example the average number of readers who visited daily, documents issued and consulted etc. (Kumbar, 2004). The present library evaluations follow this tempting but unsatisfying path. A recent review of library evaluation in Australia for example showed that majority of models was very system-centered, and relied on a qualitative input output focus which "failed to engage with experiences…[and provided] insufficient information to make decisions about… improvements" (Haynes, 2004, p.285). Critical issues regarding how people handle information, and to what extent was support needed, used and supplied has generally been ignored in favor of system-centered approach. This has been the pattern for most of the 20th century (Kyrillidou, 2002), and such an approach does little to inform any study of the communication and evaluation processes taking place in any library system.

Such outdated models do not involve the institution as a stakeholder in its own right. Far too often institutional evaluation becomes political, and value laden, leaving no scope, or for that matter any foundation, for any mutual transformative type of growth (Canen & Oliveira, 2000).

The quantifiable counting however continues, with any assessment operating apart from any sort of academic evaluation which might inform the conduct of libraries as learning institutions (Haynes, 2004). Evaluation in this sense has as its function a degree of political control, and the setting of prescriptive standards by accrediting bodies is part of the entire process (Canen & Oliveira, 2000; Dugan & Hernon, 2002). Much of the motivation for this type of evaluation is a retention of the traditional function of libraries which was to meet the information needs of the academic community (Dugan & Hernon, 2002).

The concept of regular evaluation at the end of particular time periods, actually is a very common feature of library evaluation systems right across the world, can be perceived as having a punitive effect. The library is an institution that must be accredited, and resources distributed (Canen & Oliveira, 2000). Individual institution concerns how evaluation may be conducted and how the results can be interpreted. This concern

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however is not given sufficient attention in the whole process of evaluation.

Part of the problem is of course in the conceptualization of the term evaluation. Traditional service efficiency and quality measurements do not take account properly of important contextual factors, and what the library is trying to achieve with its particular audience (Haynes, 2004). These objectives are continually changing, and need to, given today's information or world. However the regular periodic setting of prescriptive standards ignores any concept of a library being an evolving institution in its own right. The model of evaluation being explored in this study addresses the degree to which progress can be made beyond this traditional point, a point at which only final products are measured (Canen & Oliveira, 2000; Kyrillidou, 2002), to the exclusion of learning outcomes for the library and its users. In this sense existing library evaluation models are very much lagging behind concepts of evaluation that have long been practice in learning institutions such as schools and colleges. The concept of formative evaluation for example is a very old one as is the taking of a holistic approach where many aspects of the institution are examined (Canen & Oliveira, 2000).

The very latest models of library evaluation have to some extent improved on this situation, and take a far more multi-faceted approach which entails looking at the library from the customer's perspective, and relating this to the development of the educational mission of the institution (Dugan & Hernon, 2002). Now it is properly understood that traditional inputs and little direct relationship to outputs, and even less to outcomes (Kyrillidou, 2002). The essential thrust is more on how the library needs to serve its community, and how the library can change and learn to do this.

This type of progress has been evident in models of library evaluation operating in Australia where there is a distinct appreciation of the idea that outcome measures must be related to library objectives even though it is not clear exactly how this correspondence can be evidenced (Haynes, 2004; Kyrillidou, 2002). The Institute of Museum and Library Services for example defines these types of outcomes as “benefits or changes for individuals or populations during or after participating in program activities, including new knowledge, increased skills, changed attitudes or values” (Kyrillidou, 2002, p.6).

A library must untangle how far for example service quality might differ from user expectations, but this should be part

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of the learning process for the library, and in effect part of models of library evaluation (Haynes, 2004). The notion of service quality is at the present time evaluated using what has been called in the literature the 'gap model' (Haynes, 2004, p.287). This is the difference between perceptions of a service by the user and other dimensions such as the expectations of the ideal service, desired service and minimal standards. Mathematically it is the difference between expectations and perceptions of how the service was actually provided, and in the minds of some library evaluators, the instrumentation and results of this model can be standardized across any number of libraries (Hernon, 2003; Haynes, 2004). The conceptual simplicity of this approach however is beguiling as in practice the measurement of attitudes is something which cannot be done with conclusive reliability. In the model of library evaluation explored in this study in one sense the existence of a "gap" in the minds of library staff, can lead to learning experiences and outcomes which might reduce the size of that "gap".

Current trends then in library evaluation, while accepting that qualitative methods to play a part, and moving increasingly to the idea that qualitative measurement is what is needed. Such research methods can help establish cause-and-effect relationships, and show how contextual factors can be important (Haynes, 2004). The traditional librarian approach of the past, quantifying such things as the number of journals being held, is now only important as "a meaningful part of qualitative assessment" (Lee-Thomas & Robson, 2004, p.6). Certainly if a questionnaire is a used questions must include some open-ended items (Kumbar, 2004). In all these respects the research methods used by this study apply these most important improvement trends.

Yvonne Lincoln (as cited in Kyrillidou, 2002, p.1), in an address to a library research seminar made the telling point that library operation "embodies multiple overlays of meaning…many of which might have to be discovered or even created". Kyrillidou (2002) then continues, explaining the point that if libraries are to renew themselves their entire process of operation does need to be reinvented or re-conceptualized, and this is quite a suitable task for any model of library evaluation.

Such models, if effective then, must have qualitative components. However this can often be bewildering to "librarians, faculty and administrators alike" (Lee-Thomas & Robson, 2004, p.6). One very confounding factor is the fairly common perception that evaluation

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results of one library need to be benchmarked, standardized and compared with those of other libraries. As the research in this study is indicating each library resides within its own community and while processes of innovation are equally necessary, and there is a certain commonality of methods used, the outcomes must be necessarily different for each library community.

One quite extensive model of library evaluation, which tries to take qualitative approach, while at the same time standardizing methods of comparison, is the LibQUAL survey of national libraries in the US. The benefit of this type of library evaluation model is the recognition that there has to be some sort of dialogue between the institution and those carrying out the evaluation, in this case, the users.

It however can be seen that library evaluation is a very complex matter, and rightly considered must address the complex relationships between people, information, and how that relationship may be facilitated (Haynes, 2004). This of necessity involves consideration of beliefs and assumptions, and values and how these might shape the process of forming institutional library goals. For too long libraries have only considered imports according to rules and norms, and have ignored their "dynamic, transformative aspects in the sense of founding, creating and construction" designated as a process of "instituting" (Canen & Oliveira, 2000, p.279). Lourau (1996, as cited in Canen & Oliveira, 2000, p.280) has termed this capturing the "social action in the dynamics" of any institutional analysis. This has relatively little to do with how extensive the resources or activities in the library may be; and has everything to do with how expectations are formed, and changes are made to facilitate interaction processes (Hernon, 2003; Kyrillidou, 2002). Even outputs, something of an improvement in library evaluation, are conceptually unequal to outcomes (Dugan et al., 2002). This is exactly what the model of library and evaluation proposed in this study sets out to accomplish: the capturing of the dynamics of the inner workings of the library social and organizational processes.

A critical aspect of this is accepting that evaluation must be cognizant of the context and the community within which each library resides—a concept which is presently making much headway in contemporary models of library evaluation (Haynes, 2004). Models of library operation must show this dynamic and flexible aspect of learning. Kyrillidou (2002, p.5) has termed this as "moving users and information resources into a

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spiral swirling up and down into the depths of knowledge, exploration and experience". The library itself must be actively engaged in this sort of development if library users are to benefit, which must in the final analysis the aim of all evaluation (Hernon, 2003). This conjunction of library purpose being part of the library's own life has yet to be fully appreciated and implemented into models of library evaluation.

It is clear that in the future the actual task of libraries will be far more complex as they will need to operate as a learning center, community resource, and a type of information portal which opens doors to the entire information world (Kyrillidou, 2002). The library will now have no longer have a sort of central control function as it will be a broker of facilitated information access. The quality of the service provided and the desired outcomes, right across the community, will be the important measures (Hernon, 2003). Models of library evaluation must then address the processes by which these far more sophisticated objectives can be achieved.

This indeed is the role of academic research, a working towards of "a serious understanding of people's information needs and behaviors" (Haynes, 2004, p.301). Libraries simply must engage in reflective practice and leave traditional evaluation methods despite their familiarity, and use qualitative instruments which are more suited to exploring the dynamic learning processes which are necessary.

These processes may have some similarity when compared across libraries but certainly the nature of the interaction of the library and its community, and the interaction within the library to meet and respond to external needs must necessarily be unique within each institution. In this sense the present development and approach of surveys such as LibQUAL are only a beginning.

Role of library evaluation in organizational learning

Libraries can build up their core competencies by becoming a learning organization (Giesecke & McNeil, 1999). Clearly the entire thrust of the organization is to recognize the importance of organizational communication, indeed it is considered as a precondition for creating a learning organization, including trust and commitments (Barker & Camarata, 1998). New knowledge and new methods from the outside raise the importance of the role of evaluation, and indeed the proper assessment of organizational

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effectiveness as it applies to libraries (Rosenstein & Levin-Rozalis, 2002; Williams, 1983). There are clearly more profitable route seems to be working with present external evaluation methods so that those methods can enable libraries to improve organizational learning and effectiveness. The applications of external check lists and frameworks by the libraries themselves seemed to be, on the literature results reported, somewhat counterproductive. Organizations might need a facilitator to guide them into double-loop learning provided there is adequate participation in the evaluation (Rosenstein & Levin-Rozalis, 2002; Vakola, 2000). It is fully recognized that this can never be a 'top down' approach (Cherin & Meezan, 1998) in the literature.

This means that there must be a proper integration of the evaluation or with the libraries of own goals, and program of growth. The problem however remains on which processors and which performance indicators to think about and indeed measure (Pritchard, 1996). There is recognition of the need for more sophisticated data collection instruments, and also the need to investigate how the information collected has contributed to the operation of the library and the satisfaction of its users.

One of the essential missions of library evaluation is to help these libraries develop the capacity to obtain and control all the information they need, to analyze this data, and to disseminate it in order to affect the policies of the institution (Williams, 1983). This means that evaluation should be integrated within the library as a continuing planning process. The process continues from one evaluation through a planning mechanism to a new evaluation. Similarly, Marquardt (1996, p.109) comments, for instance, "the management of change in academic libraries can only be improved by reshaping performance appraisal into performance planning." Thus evaluation constitutes the ongoing obtaining of useful information which is continuously revised so that library operation can be improved. Library evaluation must be a part of its permanent planning, not just an event.

Using a number of academic libraries as the research objects, Casserly (1987, p.100) concludes that self-study is crucial to the success of accreditation, and "self-study success for academic libraries can be described in terms of two different types of outcomes: changes and improvements, and organizational and personal benefits." There is a relationship between accreditation and organizational change. Academic libraries that evaluate themselves well will receive a benefit in terms of organizational change. In order

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words, effective changes must be made after an appropriate self-evaluation. The evaluators then have to help the organization reflect and learn via the provision of a new experience. The evaluator uses reflection and phenomenal logical interviews and observations so that they can truly understand what is occurring in the organization and how it might be assisted to become a learning organization (Rosenstein & Levin-Rozalis, 2002). Miller (1979, p.306) suggests an examination of ten dimensions for academic institutional self-evaluation: goals and objectives, students' learning, faculty performance, academic programs, institutional support services, administrative leadership, financial management, governing board, external relations, and institutional self improvement. Miller advises that institutions should set a number of criteria for each dimension, in the form of questions. That is, they should ask themselves what they should do; how well they have done it; and why they have failed to achieve a standard.

Fundamentally the whole situation relates to the attitudes of library workers, namely people problems and human environmental problems (Preskill, 1994; Williams, 1983). As Marcum (1996, p.59) claims, libraries will survive if they have "skilled" and "motivated" librarians and staff with a collective vision of their future and also have proficient ability to reform their environment. The end product cannot be measurement of goals and objectives which have been developed by the evaluator and intended primarily for outside audiences (Cherin & Meezan, 1998). Indeed the evaluator must stay with of the library and help to plan and implement the changes that is the evaluator should actively engage in the organization and truly involved the staff members (Cherin & Meezan, 1998; Forss et al., 1994; Preskill, 1994).

Library leaders may become accustomed to the flow of communicative power through various layers, and be reluctant to move to contrasting power sharing arrangements. This must change if libraries are to become successful learning organizations (Dunford, 1992). If conflict occurs, as it inevitably will, then most progress can be made by accepting that conflict is normal. It must be accepted that within an organization very different interest groups have different objectives, and this position must be accepted as a starting point, and worked with. Library leaders cannot maintain the idea that they can control the organizational processes completely. Although they can exert some sort of general control, the detailed control must be spread throughout the different layers of the organization so that effective learning and communication can

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take its course. In other words, the professional control, the cultural control, and the output control are shared among all employees (Dunford, 1992). This whole area of leadership, particularly in its application to libraries striving to achieve organizational learning is vast. Many writers call for transformational library leaders, anxious for some type of educational and social change, particularly since such concepts are widely accepted in the business literature (Day, 1998; Mohrman & Mohrman, 1993; Phipps, 1993; Ulrich et al., 1993). There is an underlying belief that seems in literature that the leadership transformational model seems to have the most potential if organizational effectiveness and learning is to be achieved. Some writers complain that library leaders have not used for example new technologies to achieve new structures within the organization (Phipps, 1993).

Ideally then change is achieved through participatory evaluation. In general the traditionally designed system evaluation does not achieve this. It certainly does not allow the operation of the 4Is a framework (Cherin & Meezan, 1998; Forss et al., 1994). Library organizations need to understand to what extent as well as the manner in which evaluations change their learning activities. This has been established in the relevant literature, some of which has been referred to above. However, applied research in the field of library science is scarce. According to Marcum (1996, p.53), "efforts to apply organizational learning techniques to libraries are more limited … The territory is no longer virgin, but is not yet extensively cultivated." Marcum (1996, p.54) maintains, "academic libraries do access, communicate, and generate information, but it is still lacking studies to answer the questions: to what extent do they learn from their work, and apply that learning to adapt their behavior?" Efforts still need to be made to ask these questions, because learning obviously strengthens the abilities of library organizations and their members to face the rapidly changing external environment.

The impetus for change

The literature, considered in general does of course have enormous relevance to the development of academic libraries. Libraries might be expected for example to be at the very forefront of knowledge management, and this would require the full implementation of double-loop learning, fully explained elsewhere in the study. Nevertheless the literature on organizational learning, leadership and

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management in general must be carefully interpreted. The literature accepts that there is no one best framework, structure or culture. Each type of business each type of industry and each type of product and service needs its own approach to organizational and cultural development. The more aggressive the approach to the environment for example the increased need for flexibility of organizations. This is exactly what research on libraries needs to address. Academic libraries just cannot adapt practices that are used in the business world and expect them to be just as successful (Buckley & Carter, 1999; Daft, 2004; Golding, 2004; Watson, 2005). Just one example of this is the work referred to earlier by Schultz and Jobe (2001) where it was established that different types of visitors to need to handle their knowledge in a different way (and see also for example Morris & Empson, 1998).

Conclusion

Rightly considered a library is a learning organization: and this has of course sweeping implications. Libraries do need tools for examining their changing environment and enhancing the effectiveness of their organization. This paper has then examined something of the current literature concerning the contribution which evaluation can and should make to improved organizational culture within libraries.

As a first step it is accepted that organizational learning is the chief method by which libraries, as organizations, can progress. Evaluation is the process by which libraries can be aware of their environments, and can begin to respond to those environments. On the human scale this means intelligent involvement and coordination at management, group and individual levels, if appropriate and effective organizational change is to be achieved. That is there has to be cultural improvements enabled and facilitated by structural changes.

The theoretical approach of Argyris and Schon, namely single-loop and double-loop learning theory, was considered to be a most useful starting framework for any consideration of the literature. Double-loop learning is the more desirable level of organizational learning and is most likely to emerge when an organizations interact with its environment as some type of open system .

Equally important was the 4Is framework (intuiting - interpreting - integrating - institutionalizing) of Crossan et al., (1999). This framework allows conceptualization of thinking processes which can take account of individual group and organizational

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communication structures, flyovers, and general organizational learning climate.

The work of other theorists was regarded as complementary since they included the role of the individual in organizational learning. In particular theorists such as Senge laid particular emphasis on the need for organizations to give workers the ability to expand their capacity to bring about results in an environment where people can continually understand how better to coordinate together. Indeed, properly and more usefully considered there must be a joint inclusion of individual and organizational structure is there is to be the required creative forwards and backwards tension, which has always been the contention of the 4Is framework.

Organizational culture is seen in the literature as an underlying requirement if individual learning is to enable the building of a learning organization. Unfortunately some organizations find it difficult to make such a transition and this is why structures and cultures must be changed. The most appropriate tool for guiding this change is wide ranging evaluation which includes how an organization interacts with its environment, the knowledge structures it uses, and how it develops in both individuals and itself the ability to change. In other words evaluation must expose information to libraries which enable them to take a more creative approach to their own organizational knowledge.

This can only be achieved with appropriate collaboration between evaluators and libraries, that is the evaluation itself is a learning experience. Regrettably the literature on library evaluation indicates that such productive collaboration is far from being the norm. Ironically this is at a time when libraries are facing most remarkable pressures on their roles, services, and method of communication.

Although there has been recognition of a range of different types of library evaluation, and increasing sophistication in the actual tools of evaluation, there has been insufficient attention to how library evaluation can be integrated into the library as a continuing planning and responding process. Clearly there needs to be increased research into models of library evaluation, and how such models might serve the monitoring and development needs of libraries. Of necessity there would need to be increased use of qualitative methods, and a fuller consideration of the library in its wider community context.

As mentioned early, library organizations need some changes inside the organizational structure. That is, the

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members of the library should try to make the "impetus for improvement" by introducing some realistic activities such as reading and discussion groups among the library staff. These activities must be related to some parts of the institutional evaluation because the evaluation is then associated with the learning behavior of the library organization.

If this is to happen more often then a more sophisticated approach must be taken to library evaluation, including the addressing of the complex relationships between people, information, and how that relationship may be facilitated. Ideally then change is achieved through participatory evaluation, a build-in process, conducted by the library itself. The evaluators themselves have a critical and collaborative role in the development of organizational learning.

The need for such development is most urgent, especially since libraries might be expected to be at the forefront of knowledge management. Each library, in each context, must though take its own careful approach, through evaluation, to the issues of organizational change and learning, leadership and management. The literature accepts that there is no one best framework, structure or culture. There can no longer be though an organizational climate which is resistant to change.

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