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Strategies for Transforming Human Service Organizations into Learning Organizations: Knowledge Management and the Transfer of Learning

Michael J. Austin

ABSTRACT. This analysis describes the nature of a learning organization, defines the boundaries of evidence-informed practice, identifies the elements of knowledge management, and specifies the elements of the transfer of learning. A set of principles are presented to guide managers in transforming human service organizations into learning organizations along with a set of implementation strategies that can inform participants of the values and benefits of knowledge management. This analysis features concepts and principles adapted and synthesized from research in diverse fields, such as evidence-based health care and the for-profit sector related to learning organizations, knowledge management, and the transfer of learning.

KEYWORDS. Knowledge management, learning organization, evidence-based

INTRODUCTION

At both the managerial and service delivery levels of human service organizations, staff members are increasingly aware of the need

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to move from the authority-based approach to the evidence-based approach to practice. The authority-based approach is based on the acquiring of practice wisdom over time through employment experience and professional education. The evidence-based approach is based on the use of critical thinking skills needed to understand and assess research as well as adapt and apply findings to practice situations. The challenge facing human service organizations is to find the connections between the tacit knowledge that provides the foundation for practice wisdom and the critical thinking capacities associated with analyzing and utilizing data (research and administrative) related to service outcomes and client perceptions. This new approach to practice is rooted in questions such as: (a) How explicit are our outcomes and how are they measured? (b) What is the logic model that underlies our approach to services? (c) What theory(s) informs our practice? (d) How are prevention approaches defined and incorporated into our service delivery system? and (e) How are the perceptions, interests, needs of clients and those in care-giving roles incorporated into our service delivery and data-based systems? These illustrative questions provide a context for assessing strategies for transforming human service agencies into learning organizations.

There are many challenges facing management researchers and educators who seek to identify and promote evidence-informed managerial practice. First, the reciprocal nature of how theory informs practice and how practice informs theory development has not received much attention. There are beginning efforts to explore this reciprocity by educators in the areas of human behavior and the social environment (Stone, Austin, Berzin, & Taylor, in press). Second, the selection of key concepts from various bodies of theory has plagued educators over the decades, particularly the synthesizing of key concepts into constructs that can inform practice (Mulroy & Austin, 2004). Third, both researchers and educators engage in a continuous search for ways to understand organizational and managerial practices in the human services (Menefee, 2000) as well as using empirical research to structure university courses in the form of evidence-based curricula and textbooks (Austin & Kruzich, 2004). The ultimate goal of addressing these challenges is to find ways to connect an extensive history of practice wisdom acquired over the decades with the empirical traditions of developing knowledge that can be applied to practice.

This analysis presents five major elements in developing strategies for transforming organizations into learning organizations. The first section begins with a discussion of the elements of a learning organization that draws upon the pioneering work of Senge (1990). It is followed by an exploration of what is meant by evidence and its role in informing practice, drawing upon the pioneering work of Sackett, Richardson, Rosenberg, and Haynes (1998). The third section features the concepts of knowledge management that are drawn from their extensive use in the for-profit sector, as featured in the *Journal of Knowledge Management.* The fourth section focuses on the transfer of learning building upon the extensive work of Broad and Newstrom (1992) in their assessment of corporate training programs. And the concluding section explores the micro-level implications of these major perspectives for equipping managers with the capacities to engage in evidence-informed managerial practice in human service organizations.

ELEMENTS OF A LEARNING ORGANIZATION

To meet the challenges of today's human service industry, agencies need to balance effectiveness, efficiency, and innovation, while engaging in inter-disciplinary, culturally competent, and self-reflective practice (Hopkins & Hyde, 2002; Menefee, 2000; Nagda, Harding, & Holley, 1999; Patti, 2000; Preskill & Torres, 1999). As a result, human service agencies need to be open to learning about themselves and developing new skills and knowledge in order to become more flexible and responsive to their service environment. This section of the analysis focuses on the application of learning organization principles to human service organizations (Austin and Hopkins, 2004).

Building an Organizational Culture of Learning

Successful organizations routinely create new knowledge, disperse it throughout the organization, and incorporate it in new practices and services. They reflect a culture in which daily activities are viewed as a learning opportunity for continuous organizational improvement. Human service agencies can also grow and change through learning, experimentation, practice, innovation, and risk. Innovation is seen as one way for human service agencies to address the changing needs of a diverse client population with the delivery of high quality services (Austin, 2004). Innovation can thrive in a culture of learning where processes are continually reviewed (i.e., what can we learn from this and what can we do better or differently?).

Many of the problems that organizations experience are either unique to a given situation or have been experienced repeatedly over time (Dixon, 2000; Hopkins & Hyde, 2002). In either case, an organizational culture of learning can help staff "learn their way out of their problems" (Dixon, 2000). When staff members share information, ideas, and knowledge gained, they create a learning culture through the process of sharing, even if the organization has yet to develop a fully collaborative culture. When managers create new processes of interaction and "collective learning" (Dixon, 2000), they are challenging themselves and their staff members to become more open to learning by examining the big picture, thinking creatively and strategically about the future, and developing and testing innovative ideas (Hopkins & Hyde, 2002). Through these processes, a learning culture can evolve over time.

If learning cultures and/or organizations are key to being innovative and relevant in the 21st century, why are they less evident in human service organizations? One of the primary reasons could be the availability of limited time, resources, and/or leadership. Another reason may be the process of taking people out of their "comfort zone" and creating a level of anxiety that makes people reluctant to try something new. As a result, organizations "rarely get to the point where they are eagerly challenging deeply held assumptions about (an organization's) strategies and processes and, in response, thinking and acting in fundamentally altered ways" (Coutu, 2002, p. 2). While human service managers often need to respond to difficult internal and external challenges, real learning may not take place until there is an organizational crisis or internal or external threat.

Organizations characterized as rigid and bureaucratic can learn to shift their organizational culture from one of control and routine to a culture that values worker initiatives and contribution by encouraging their staff members to become team builders, to become more innovative, and to promote continuous service improvement (Hopkins, 2002). When human service professionals are supported and developed within a learning culture, they are often better able to help their clients learn and develop solutions to their problems. "An organization that is learning and developing right from the top of the organization to the bottom is far more likely to be meeting the needs of its clients because it is also meeting the needs of its staff" (Hawkins & Shohet, 2000, p. 176). In today's human service environment, the development of staff within a learning culture can be the key to the retention of talented employees.

Research on organizational cultures suggests that it is more common to see learning and subsequent improvement or change taking place in individuals or small groups or teams than as a coordinated effort across the organization (Schein, in Coutu, 2002). In most situations, "organizational learning is not a single process performed by the entire organization in a uniform fashion," but rather various organizational units engaging in different forms of learning "and at different levels of intensity" (Lipshitz & Popper, 2000, p. 357). Case studies of successful learning cultures demonstrate that learning most often begins with a small group or team that develops a learning culture and gradually spreads the elements throughout the organization (Austin & Cohen, 1994; Dixon, 2000; Lipshitz & Popper, 2000; Schein, in Coutu, 2002). According to Schein, organizational learning does not happen until "leaders become learners themselves" and become models for others to follow.

The current business management literature emphasizes the concepts and practices of learning organizations and organizational learning. These concepts and practices are beginning to emerge in the nonprofit management literature and are espoused in some human service organizations (Cherin, 1999; Hawkins & Shohet, 2000; Lewis, Lewis, Packard, & Souflee, 2001; Lipshitz & Popper, 2000). Many organizations are adopting an organizational learning framework as a response to the many challenges and changes they encounter. The definitions of a learning organization and organizational learning are different and call for elaboration.

A *learning organization* is an organization that is "skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights" (Garvin, 1998, p. 51). By valuing continuous improvement, a learning organization can define where it wants to go and systematically identify the steps to get there, using the principles and practices of continuous learning. Senge (1990) is one of the first organizational researchers to articulate the following five concepts that underlie the development of a learning organization: (1) systems thinking (seeing multiple relationships related to people, ideas, and things); (2) personal mastery (clarifying what is important); (3) mental models (clarifying and adjusting underlying assumptions); (4) shared vision (agreeing on goals and a course of action); and (5) team learning (thinking insightfully and generating new learning).

Senge (1990) maintained that staff members need to closely examine whether or not the assumptions that guide their thinking and behavior are logical and reasonable and, in the process, question their underlying values and judgments. To view situations differently, staff members also need to allow others, such as team members, to question these assumptions. This allows others to understand and learn from each other's perceptions.

Organizational learning is the "process of improving actions through better knowledge and understanding" (Fiol & Lyles, 1985, p. 805). Through policies and procedures that support learning activities, and the dissemination of best practices across the organization, everyone learns and can make improvements in what they do, creating an increased capacity for organizational development. Organizational learning "represents the organization's commitment to using the capabilities of all of its members" (Preskill & Torres, 1999, p. 43).

In the context of organizational learning and the learning organization, a *learning culture* can be defined as an environment that promotes and fosters individual, team, and organizational learning (Garvin, 1998). The culture of the learning organization encourages and supports collaborative learning and understanding. For example, Thomke (2001) describes a practice of "enlightened experimentation" in which supervisors develop a system for sharing diverse ideas and creating incentives for experimentation by (a) sharing information with staff that helps them understand the needs of the organization; (b) working with small groups of key people to revamp entrenched routines; (c) instituting a peer coaching or mentoring system; (d) developing individual and/or team "growth" plans; (e) sharing learning experiences at staff meetings; and (f) engaging in cross-training, job swapping, and job rotation among staff. In essence, everyone has the opportunity for a learning/growth experience that contributes to improving decision-making and service outcomes.

Beyond these definitions, it is helpful to identify and operationalize the key functions and core tasks of a learning organization (Garvin, 2000) in order to provide a benchmark to assess the extent to which one's own organization reflects some or all of the features of a learning organization. Garvin identified the following five functions of a learning organization: (1) information gathering and problem solving, (2) experimentation, (3) learning from past, (4) learning from promising practices, and (6) transferring knowledge. Each function includes a set of tasks that are needed to effectively carry out the function. The four learning tasks common to these functions are:

1. Learning settings (forums to wrestle with ideas, audits and self-studies, performance outcomes and skill enhancement, and staff meetings and divergent thinking);

2. Learning cultures (valuing dissent and challenge, creating support and security, and sharing knowledge and open communication);
3. Learning process (questioning, listening, and responding); and
4. Personal investment in learning (openness, bias awareness, search for unfiltered data, and sense of humility).

Essential to the learning organization is the process of searching, appraising, and synthesizing evidence related to organizational issues. Based on this evidence, a set of recommendations can be presented in support of best or promising practices. This information can then be used to improve the delivery of services. The next section explores the process of identifying and utilizing evidence for practice.

SOURCES OF EVIDENCE

The growing interest in evidence-based practice has generated a wide variety of discussions related to such questions as: "How do you define it?" "How to do it?" "How to teach it?" and "How do you evaluate its feasibility and outcomes?" Those who support it draw heavily on the pioneering work of Sackett, Rosenberg, Gray, Haynes, and Richardson, (1996) who defined evidence-based practice as a "conscientious, explicit, and judicious use of current best evidence in making decisions about individuals" along with special attention to the values and expectations of clients (p. 71). Searching for evidence related to and relevant for human service practice involves a process of addressing complex questions, such as (Austin, in press):

1. What do we mean by "best evidence" for nonprofit and public sector human service organizations?
2. What do we mean by "practice" that features evidence-informed decision-making, especially in relationship to service delivery, inter-agency collaboration, and the management of organizational processes?
3. Given the complexity of achieving the goal of evidence-based practice, to what extent should it be defined as evidence-informed practice that fosters organizational learning?

Given the limited and uneven support for human services research in the U.S. over the past half century, it is increasingly clear that evidence-based practice continues to be a goal or vision of future practice. While the search for "best evidence" is a challenge even in the most highly funded areas of health care research, it is even more challenging in the field of human services with its limited number of studies based on randomized controlled trials (RCTs). While we now have international databases in health (e.g., Cochrane Collaborative) and social sciences (e.g., Campbell Collaborative) designed to feature the results of systematic reviews of RCTs and other types of study designs, there are large holes in the databases related to the limited number of RCTs in the human services. It is clear that more expanded research funding is needed in order to use the most rigorous research methods as well as other methods to address complex service delivery issues. In the meantime, however, it is increasingly clear that we need to "spread the net" as widely as possible to capture the breadth of research that is methodologically less rigorous than RCTs.

In addition to the interests in the research community to utilize rigorous research methods, another source of interest in evidence-based practice emerged in the human service practice community. Colleagues in the mental health and health care fields are expected by their accrediting bodies, government accountability mandates, funding sources, as well as pressures from managed care, to engage in more evidence-based practice. Likewise, those in the public and nonprofit human services are increasingly being expected to do the same. For example, the federal standards for substance abuse and child welfare outcomes are only the beginning of this movement to raise questions about the evidentiary foundation of current "best practice." In addition, dependency court judges are increasingly interested in seeing if the court reports prepared by child welfare workers include relevant research, in addition to expert professional judgment. In response to these new realities, human service agency directors are increasingly interested in finding ways to access, manage, and store information about evidence-based practices. And, finally, since changes in professional education often follow innovations in practice, university faculty members and agency trainers are also challenged to find ways to help students and staff assess research in a way that would inform practice.

In the light of these challenges, it seems appropriate to place more emphasis on "evidence for practice" than on evidence-based practice until research funding increases substantially. One strategy involves structured literature reviews (made transparent by the explicit use of search terms, database identification, and inter-rater reliability checks on the description and interpretation of findings in searches that yield large numbers of studies) in contrast to the use of systematic reviews conducted for the international collaboratives on evidence-based practices. Structured reviews include the assessment of multiple types of research (evidence resulting from qualitative and quantitative studies) that are relevant to direct practice with clients and the management of human services. The goal of such reviews is to provide a synthesis of the most rigorous and relevant research (when available), the identification of major themes, and the specification of preliminary implications for practice. Each structured review begins with a general question such as:

- What does research tell us about the disproportionate number of children of color entering the public child welfare system?
- What does research tell us about the challenges of disseminating and utilizing research findings in human service organizations?

In addition to structured reviews to provide evidence for practice, it is also important to identify research that would inform the future implementation of evidence-based practice. While considerable attention needs to be given to training staff to effectively utilize evidence, it is also clear that attention needs to be given to the organizational and managerial supports for staff seeking to incorporate evidence into practice. While some argue that line staff should be trained to identify, select, assess, and incorporate research findings, the magnitude of such an endeavor in the light of heavy agency service delivery demands is so great as to overwhelm the most talented among us (Sheldon & Chilvers, 2000). Others suggest that researchers and graduate students located in our universities are in a unique position to conduct the reviews provided that agency practitioners: (a) identify topics or questions to guide a search; (b) provide the resources for the review of evidence; and (c) identify potential uses of such reviews (within the context of organizational supports) for engaging in evidence-informed practice on a daily basis. In essence, without managerial support, this new approach to practice will be difficult to implement considering the practice realities of caseload size and training needs.

In addition to organizational supports for line staff, there is also a need to focus on how research is used to inform managerial decision-making. The bulk of the evidence on managerial decision-making appears in the literature of the for-profit sector. From this emerging area of knowledge management, there are several questions that need to be explored by human service organizations such as (Austin, in press):

1. How is research disseminated and utilized in organizations?
2. What is the impact of an organizational change (like evidence-informed practice) on the organization's culture?
3. Which human service agencies in the U.S. have implemented evidence-based practice, and what has been their experience?
4. What is the difference between tacit and explicit knowledge, and how are these two managed?

KNOWLEDGE MANAGEMENT

Knowledge management has recently taken a more prominent role in the management of organizations as worker knowledge and intellectual capital are recognized as critical to organizational success. This section explores the literature of knowledge management, including the individual level of tacit and explicit knowledge, the networks and social interactions utilized by workers to create and share new knowledge, and the multiple organizational and managerial factors associated with effective knowledge management systems. Six strategies are also presented to assist human service organizations with implementing new knowledge management systems (Austin, Claassen, Vu, & Mizrahi, in press).

The term "knowledge management" first appeared in the literature of the for-profit sector in the early 1980s in an effort to capture the resources located in the workforce of organizations and in the management literature of the for-profit sector. This development prompted researchers to examine the knowledge that exists within businesses and understand how that knowledge is used (Hansen, Nohria, & Tierney, 1999). Consulting companies whose main business is collecting, organizing, managing, and disseminating knowledge were pioneers in knowledge management as they sought to identify systems and structures, mainly databases and repositories, to codify and store knowledge for easy access.

In an extensive review of the definitions of knowledge management, Awad and Ghaziri (2004) found that six components were used to define knowledge management that builds upon a foundation of information management, including (a) using accessible knowledge from outside (and inside) sources; (b) embedding and storing knowledge; (c) representing knowledge in databases and documents; (d) promoting knowledge growth in the organizational culture; (e) transferring and sharing knowledge throughout the organization; and (f) assessing the value of knowledge assets and impact.

While the majority of experience with knowledge management resides in the for-profit sector, recent interest in the public and nonprofit sectors has emerged in relationship to improving service effectiveness and efficiency as well as reducing costs (Edge, 2005; Haynes, 2005; McAdam and Reid, 2000; Office of Security Defense, 2002; Syed-Ikhsan & Rowland, 2004). While focused mainly on information technology, the federal government has several knowledge management projects, including the Federal Knowledge Management Working Group, which seeks to understand knowledge management at the federal level of government. In addition to the benefits of knowledge management in the public sector, there are multiple challenges including:

1. Little support and flexibility in financial reward systems (Office of Security Defense, 2002);
2. Isolated nature of public sector work (Office of Security Defense, 2002);
3. Culture of resistance and hoarding of knowledge (Liebowitz & Chen, 2003; Svieby & Simons, 2002);
4. Difficulty in developing and maintaining collaborative cultures (Edge, 2005);
5. Reduction of centrally allocated resources for managing knowledge (McAdam & Reid, 2000).

The process of knowledge management can be viewed from three perspectives: individual, group, and organizational. The individual level includes an understanding of tacit and explicit knowledge. As individuals create information and acquire knowledge, it can be shared through social interactions and exchanges within the organization in order to create new knowledge. Secondly, knowledge sharing depends not only on the individual and team level sharing but also on an understanding of the many organizational factors that underlie the successful implementation of a knowledge management system. And, finally, it is useful to identify the implications for implementing knowledge management systems in nonprofit and public sector human services organizations.

The Role of Tacit and Explicit Knowledge in Organizational Life

It is no longer sufficient to simply employ people who can do the job; we need to understand how they do it as well as the processes that underlie their work (Horvath, 2001; Stenmark, 2000; Tagger, 2005). Intellectual capital is the sum of the knowledge possessed by the employees of an organization. Managing knowledge is the key to maximizing productivity and promoting organizational sustainability.

According to Augier and Vendelo (1999), knowledge can be viewed in terms of a continuum with tacit knowledge on one end and explicit, or codified, knowledge on the other. The concept of "tacit knowledge" goes back to at least as far as Helmholtz's work in the 19th century (Nonaka, 1994; Tagger, 2005). Tacit knowledge is knowledge that exists in the minds of workforce members, manifests itself through their actions, and is not easily articulated. Tacit knowledge can be displayed by experts who make judgments and take actions, usually without making direct reference to a framework that explains what they are doing. Therefore, tacit knowledge is a meaningful and important source of information that influences the decisions and actions of practitioners, often called "know how" (Brown & Duguid, 2001; Zeira & Rosen, 2000). In contrast, explicit knowledge refers to knowledge that has been captured and codified into manuals, procedures and rules that can be disseminated. It could refer to knowledge that has been learned through explicit instruction or to a skill acquired through practice. While knowledge may be needed to acquire skills, it may no longer be needed once a person becomes adept in exercising them (Brown & Duguid, 2001).

When explicit knowledge is embodied in a language that can be communicated, processed, transmitted, and stored, it takes the form of data-based information and evidence-based principles in organizational manuals. In contrast, tacit knowledge is personal and difficult to formalize because it is embedded in action, procedures, commitment, values, and emotions and acquired by sharing experiences and observations that are not easily communicated (Nonaka, 1994).

As a result, tacit and explicit knowledge are interdependent, essential to knowledge creation and of equal importance (Nonaka, 1994). Explicit knowledge without tacit insights quickly loses its meaning, where *know that* requires *know how.* Therefore, knowledge is at least two-dimensional and created through interactions between tacit and explicit knowledge. Agency-based practice represents the integration and dissemination of both tacit and explicit knowledge (Brown & Duguid, 2001; Madhavan & Grover, 1998).

The growing interest in tacit knowledge over the last decade has also informed the process of organizational learning (Swarts & Pye, 2002), especially the different ways in which tacit knowledge affects the sharing of knowledge. While much of the literature and research surrounding knowledge management has emphasized the definition and justification for knowledge management, little has been written about knowledge sharing, especially the transfer of tacit knowledge from one individual to another. Because tacit knowledge is gained through experience and revealed through application, it is important for organizations to create opportunities for the sharing of tacit knowledge (Grant, 1996). Thus, the goal of knowledge management is to capture tacit knowledge and encourage workers to share and communicate their knowledge with others at various levels within the organization by using formal and informal networks and creating a culture in which knowledge sharing is supported and encouraged (Awad & Ghaziri, 2004). The urgency of this sharing process can be seen in an organization's leadership succession planning where senior staff members leave the organization with no knowledge management mechanisms in place for transferring their tacit knowledge to their successors.

Knowledge Sharing in Organizations

Within an organization, knowledge sharing can occur at three distinct levels: organizational, group, and individual (De Long & Fahey, 2000). While individuals are the primary conduits through which knowledge is created and shared in an organization, organizations cannot create knowledge without the individuals who possess the knowledge and this knowledge creation needs to be harvested by organizations in order to enhance effectiveness and efficiency (Grant, 1996; Ipe, 2003; Nonaka & Takeuchi, 1995). Thus, individuals play a critical role in the process of creating organizational knowledge because they provide the knowledge that can be included, augmented, and implemented as a part of the organization's knowledge base.

Knowledge sharing relies heavily on the interactions between individuals within an organization. Ipe (2003) states, "An organization's ability to effectively leverage its knowledge is highly dependent on its people, who actually create, share, and use the knowledge" (p. 341). The sharing of knowledge is a process by which individuals are able to convert their own knowledge into a form that can be understood, absorbed, and used by others. Knowledge sharing allows individuals to learn from one another as well as contribute to the organization's knowledge base (Hendricks, 1999). Knowledge sharing also promotes creativity and innovation as individuals collaborate together, circulate new ideas, and contribute to innovation and creativity in organizations. This is the essence of a learning organization.

Organizational knowledge needs to be viewed as a communal resource whereby communities inside and outside of organizations have a mutual interest in knowledge sharing that involves the following factors: opportunity structures and caring (von Krogh, 2002). Opportunity structures are the occasion and benefits of knowledge sharing in the community; for example, narrow opportunity structures involve communicating very specific knowledge through very specific channels with a limited number of people and broad opportunity structures include many relationships in the community with a wide spectrum of interests and knowledge where sharing occurs on a consistent basis through both virtual and physical means (e.g., "knowledge fairs"). Caring as a social norm is another factor that includes trust, tolerance, active empathy, concrete assistance, and authenticity. For example, authenticity refers to sharing knowledge "directly from the source in a way that ensures its genuineness, accuracy, validity, and reliability" (von Krogh, 2002, p. 383). The use of knowledge also contributes its authenticity, thereby advancing the knowledge sharing process and furthering its dissemination. In addition, knowledge sharing is enhanced by other social norms in the organization related to incentives to share and the type of knowledge to be shared (Ipe, 2003).

Other organizational factors include rewards and their incentive structures. The more benefits (perceived or realized) that individuals receive from sharing knowledge, the more likely they will share and vice versa. When individuals perceive knowledge sharing as being detrimental to their value or status, they are less likely to share. Bartol and Srivastava (2002) identified four mechanisms of knowledge sharing: (a) individual contribution, (b) formal interactions within and between groups, (c) sharing across groups, and (d) sharing through informal means. The first three mechanisms could involve extrinsic promotional opportunities as incentives to foster knowledge sharing, while the reward for the fourth mechanism would be the intrinsic value of increasing one's expertise and the development of new skills.

Opportunities for knowledge sharing can occur both formally and informally. Formal opportunities include occasions that are specifically intended to obtain, exchange, and disseminate information (e.g., symposiums, conferences, and training events that provide a structured means to share primarily explicit knowledge in an efficient manner to a large number of individuals). Informal opportunities are personal interactions with individuals within and between social networks. Knowledge is most likely exchanged through these channels because of interpersonal relationships that encourage trust and build rapport (Ipe, 2003).

Strategies for Implementing Knowledge Management

The successful implementation of knowledge management involves a cultural transformation within an organization and requires the deliberate actions of management as well as employees (Grossman, 2006). An effective knowledge management initiative represents long-term change and "does not have a beginning and an end. Rather, it is ongoing, organic, and ever-evolving" (Office of Security Defense, 2002). Managers embarking on the implementation of a knowledge management system need to assess a variety of aspects of organizational culture and develop strategies that fit the uniqueness of the organization. McDermott and O'Dell (2001) have identified five lessons for implementing knowledge management:

1. Make a visible connection between knowledge sharing and organizational goals, problems, or expected results;
2. Match the overall style of the organization to the knowledge management program, making knowledge sharing a natural step and building on the strengths of the organization rather than simply replicating practices developed by other organizations;
3. Link knowledge sharing with values held by the organization and employees, including expectations, language, and mission;
4. Enhance and build upon natural networks already in existence in the organization;
5. Utilize influential peers to increase knowledge sharing and find ways to build knowledge sharing into routine performance reviews.

While the literature on approaches to implementing knowledge management has grown, the common components continue to include (a) the creation of knowledge, (b) the capturing of knowledge, (c) the organization and refinement of knowledge, and (d) the transferring or dissemination of knowledge throughout the organization (Awad & Ghaziri, 2004; Edge, 2005; McAdam & Reid, 2000; Nonaka & Takeuchi, 1995). For example, knowledge creation includes accessing the knowledge that currently exists within the organization as well as the creation of new knowledge through social interaction. Capturing knowledge involves the organizational value of making knowledge an

TABLE 1. Strategies for Implementing a Knowledge Management System in a Human Service Organization

Strategy #1: Build a visible connection between knowledge sharing and organizational goals and outcomes.
Strategy #2: Link knowledge sharing with values held by organization, including expectations, language, recognition, and mission.
Strategy #3: Tailor the knowledge management system to the style of the organization so that knowledge sharing builds upon the strengths of the organization.
Strategy #4: By identifying the breadth and depth of knowledge that already exists in the organization, staff can build upon existing sharing networks to disseminate this knowledge.
Strategy #5: Identify the key knowledge workers within the organization as well as the roles and responsibilities of all staff to increase knowledge sharing.
Strategy #6: Utilize a knowledge management task force or committee to facilitate the implementation of knowledge management strategies.

explicit aspect of organizational life. The organizing and refinement of knowledge deals with the more technical aspects of codifying, filtering, or cataloging knowledge so that others can understand and access it. And, finally, dissemination involves orientation and training strategies. Each of these components has multiple strategies for implementation but are beyond the scope of this analysis. Rather, the overall approach and strategies for implementing a knowledge management system are identified and illustrated in Table 1.

Whether line staff members need to learn about evidence-informed practice or senior management staff need to learn about the organizational supports needed for creating knowledge management systems, all learning needs to be transferred into the daily routines of nonprofit and public sector human service organizations.

TRANSFER OF LEARNING

According to Baldwin and Ford (1988), the transfer of learning is defined as the degree to which trainees effectively apply knowledge, skills, and attitudes acquired in a training program to on-the-job work performance. In addition to the application of learned knowledge and skills to the workplace, the transfer of learning also includes the maintenance of acquired skills over time. The transfer of learning is contingent on organizational support and is influenced by a wide range of factors, including employee motivation and the perceived relevance of training (Austin, Weisner, Schrandt, Glezos-Bell, & Murtaza, 2004;

Donovan, Hannigan, & Crowe, 2001; Holton & Baldwin, 2003). Over the past two decades, the complex nature of the transfer of learning has led researchers to examine the following factors that can enhance the transfer of learning: (a) motivation to transfer learning, (b) training design, and (c) influence of the work environment.

Motivation to Transfer Learning

Seyler, Holton, Bates, Burnett, and Carvalho (1998) found that the perceptions of trainees regarding the opportunity to use learning on the job had the strongest impact on the motivation to transfer learning. In contrast, pre-training attitudes, knowledge and skill acquisition, and reactions to training were found to have little influence on motivation. Although Seyler et al. found that trainees entered training with some level of commitment to the transfer of learning, their commitment was tempered by the perception that environmental obstacles would be encountered upon return to the workplace that would negatively affect the transfer of learning. Seyler et al. suggested that attitudes about training interact with organizational factors to determine the motivation to transfer learning. Tziner, Haccoun, and Kadish (1991) examined the impact of an individual's perception of personal control over a learning situation (locus of control). They found that trainees who have an internal locus of control were more likely to transfer learning to the workplace.

Training Design

A study by Burke and Baldwin (1999) found that drug and alcohol counselors who received relapse prevention training, aimed at preventing former drug and alcohol addicts from resuming substance abuse, transferred learning to their job more often than did trainees in a control group that did not receive such training. While an interaction was found between relapse prevention training and workplace climate for the transfer of learning, Burke and Baldwin found that relapse prevention alone significantly enhanced learning transfer. In addition, Tziner et al. (1991) found that relapse prevention training positively influenced post-training content mastery and transfer of learning. Furthermore, a study by Richman-Hirsch (2001) suggested that goal-setting training can be more effective than relapse-prevention training in enhancing the transfer of learning. In addition, the process of creating practice-specific goals during a training program helped trainees to direct their attention and efforts to transferring learning from the training program to the workplace.

Influence of the Work Environment

The climate of an organization is defined as the shared pattern of meanings among employees about the characteristics of the organization (Tracey, Tannenbaum, & Kavanagh, 1995). Tracey et al. (1995) found that trainees perceive the organizational climate to be a significant influence on the application of newly acquired knowledge and skills. They also found that the message sent by the organization to the trainees about the importance of learning and innovation could either encourage or inhibit their application of newly learned behaviors. A study by Awoniyi, Griego, and Morgan (2002) supports the hypothesis that individuals will transfer learning to a job when there is a match between the real environment and the ideal environment. They found positive relationships between the transfer of learning and the following factors: support for autonomy, low-workload pressure, creativity, supervisory support, and sufficient resources. Their study indicated that the transfer of learning increases as organizational support increases. Research on the organizational environment also identified the significance of peer support as a factor that positively impacts the perception of training effectiveness (Liedtka, Weber, & Weber, 1999).

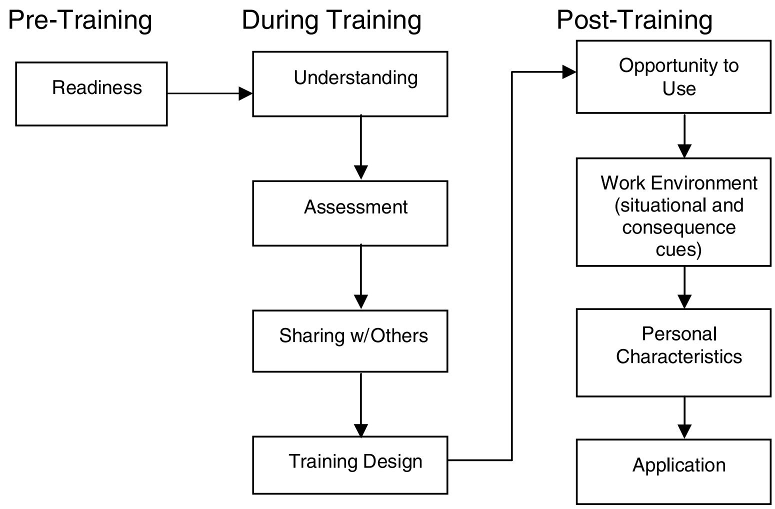
Research by Broad (1982, 1997) over the past two decades has formed the basis for much of the research on the transfer of learning. Broad and Newstrom (1992) identified nine barriers to the transfer of learning as perceived by trainees and others: (1) lack of enforcement on the job; (2) interference in the work environment; (3) nonsupportive organizational structure; (4) perceived impracticality of the training; (5) perceived irrelevance of the training; (6) discomfort with change; (7) lack of trainer follow-up after training; (8) poor training design and/or delivery; and (9) peer pressure against change. They also identified multiple strategies used by organizations before, during, and after the training to promote the transfer of learning. Broad (1982) also identified the five critical dimensions of management support needed to enhance the transfer of learning: (1) involvement of upper management in program design and transfer expectations, (2) pretraining preparation, (3) support during training, (4) linkage of training content to job performance, and (5) follow-up support in relationship to the investment in training.

Rouiller and Goldstein (1993) offer a conceptual framework for understanding the transfer of learning in the form of two types of workplace cues; namely, *situational cues* that remind trainees of the opportunity to use what they have learned in training when they return to the workplace, and *consequence cues* that involve specific types of feedback that trainees receive when they have applied learning in their jobs. The situational cues relate to work goals and tasks, social environments, and self-control. They include four types of cues: (1) goal cues remind trainees to use their training; (2) social cues arising from group membership and include the influence of peers, supervisors, and subordinates; (3) task cues related to the nature of the job itself include technology, policy, and procedures that allow trainees to use skills and knowledge gained in training; and (4) self-control cues refer to the various control processes that encourage or discourage trainees from applying new skills. In contrast to situational cues, consequence cues include positive feedback, negative feedback, punishment, and no feedback. Positive feedback is information about the use of the training that can encourage staff to continue to transfer their new learning. Negative feedback is information about the negative consequences of not using newly acquired skills and behavior, and punishment is when staff are punished for applying newly learned behavior. No feedback is when no information is given about the importance of using new learning.

Complementing the use of situational and consequence cues, Baldwin and Ford (1988) developed a framework that focuses on training inputs, training outcomes, and conditions of transfer. Training inputs include (a) trainee characteristics (such as skill or ability, motivation, and personality factors); (b) training design (learning principles, sequencing of training material, training content, and self-management techniques); and (c) work environment (including organizational climate, peer and supervisory support, and opportunities to perform learned behaviors on the job). Training outcomes include learning and retention, while conditions of transfer in this model include generalization and maintenance of learning.

In summary, Figure 1 depicts a conceptual framework of the transfer of learning (see Broad & Newstrom, 1992). In this framework, the transfer of learning is conceptualized as the application and generalization of knowledge, skills, and attitudes (gained in a training environment) to work responsibilities and work performance that includes a sequence of elements that occur before, during, and following a training program (Baldwin & Ford, 1988).

FIGURE 1. The Process of the Transfer of Learning



CONCLUSION

While there are multiple strategies for transforming human service organizations, this analysis focused on the learning organization, evidence-informed practice, knowledge management, and the transfer of learning. The goal of this concluding section is to identify a set of principles that might guide managers in transforming human service organizations into learning organizations.

Pfeffer and Sutton (2006) have constructed the following set of principles that have been adapted for the use of managers in human service organizations.

Learning Organization

Principle #1: *Treat your organization as a work in progress or unfinished prototype* (strive for a balance between knowing and doubting, act on the best available evidence, and keep updating, continuously creating conditions for learning more).

Principle #2: *See yourself and your organization as outsiders do* (excessive optimism or indifference can cause people to downplay or not see risks and to persist despite evidence to the contrary).

Principle #3: *The best diagnostic question is "What happens when people fail?"* (There is little learning without identifying and understanding mistakes, errors, and setbacks; when something goes wrong, people face the facts, learn what happened and why, and keep using those facts to make the system better—treating the organization as a work in progress).

Evidence-Informed Practice

Principle #4: *No brag, just facts* (people hold each other accountable for saying things that correspond with the facts and will act on the best facts even when they are painful to hear).

Principle #5: *Master the obvious and mundane by learning from others* (when considering a new program or practice, find out if others have gathered evidence elsewhere about when, where, and why it works; seemingly trivial things can make a big difference).

Principle #6: *Evidence-informed management practice is not just for senior executives* (everyone has the responsibility to gather and act on quantitative and qualitative data and then share what they know so that others can learn; when managers support employees as if a big part of their job is to invent, find, test, and implement the best ideas, managers make fewer mistakes, organizations learn more, and more innovation can take place).

Principle #7: *If all else fails, slow the spread of bad practices* (when faced with pressures to implement something that is untested or known to be ineffective, evidence-based misbehavior may involve ignoring orders, delaying action, or incomplete implementation, and may be the best that can be done for the organization at the time).

Knowledge Management and the Transfer of Learning

Principle #8: *Power and prestige can make you look stubborn, stupid, and resistant to valid evidence* (failure to never admit an error, not knowing something, or possessing a shred of doubt;

neglecting to build upon the organizational lessons and strengths of the past).

Principle #9: *Like everything else, you still need to sell evidence-informed management* (remind people that promising ideas are the result of a community of people, provide people with vivid examples of the outcomes and benefits, and all ideas/processes need champions who share the message over time).

Principle #10: *The essence of leadership is teaching* (helping staff learn how to build an evidence-informed perspective into the way they think and act).

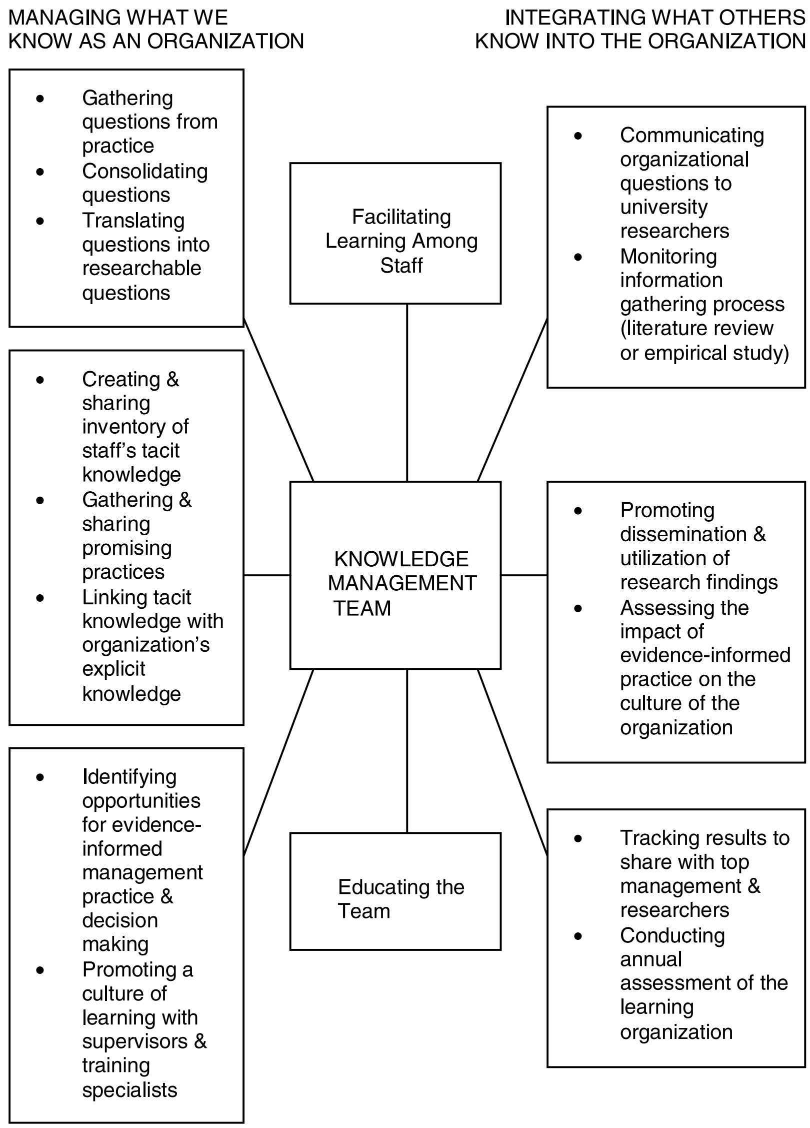
The first set of principles relate to the learning organization and the need to treat the organization as a work in progress, so that seeking opportunities for continuous improvement become the underlying value. Similarly, seeing the organization as others see it requires getting outside of one's comfort zone and learning from those who may or may not hold the organization in high regard. The value of self-disclosure underlies the third principle related to making and learning from mistakes.

A second set of principles relates to evidence-informed practice where facts and data are used to inform decision-making, and staff at all levels are encouraged to reach out to others in order to identify promising practices that might have relevance for the organization. In a similar manner, evidence can be used to minimize/eliminate harm by using evidence to stop or limit practices that have evidence suggesting that they do not work (Sackett et al., 1998).

And finally, a third set of principles relate to knowledge management and the transfer of learning. Neglecting to build upon the lessons of the past simply means that mistakes are repeated. The use of uncertainty to raise and explore important questions is a key ingredient of knowledge management. Leading a knowledge management process involves the effective use of teaching methodologies that often include bringing people together to brainstorm, learn from each other, recognize and affirm the tacit knowledge of staff, and encourage staff to transfer their learning by sharing and taking the initiative to experiment with change.

In addition to the principles that can guide these transformational strategies, effective management involves moving from the abstraction of principles to the concrete processes needed to develop a knowledge management system inside a human service organization. While a

FIGURE 2. Knowledge Management Team



staff member who assumes a facilitating role is important, change often involves a group of staff. In this case, the process can begin with the top management group and/or a representative group of staff from all programs and levels in the organization. However configured, the challenges are highlighted in Figure 2.

In essence, what new knowledge areas do staff perceive as important to acquire in order to meet the changing demands of practice. These observations need to be translated into researchable questions (a key element of evidence-informed practice) so that a designated group inside the organization or outside (university researchers or evaluation consultants) can pursue answers to those staff-generated questions. Similarly, there is a growing body of research evidence on a variety of topics relevant to human service organizations that can be searched, appraised, synthesized, analyzed, and reported for staff to review and absorb. A knowledge management system seeks to connect those internally derived questions with the externally synthesized research to provide a foundation for improving decision-making and service outcomes.

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