

## Organizational Learning in a General Hospital

Ahmad Ahmadi Teymourlouy<sup>1</sup>, Hesam Seyedin<sup>2</sup>, Soudabeh Vatankhah<sup>3</sup>, Hossein Shabanineghad<sup>4</sup>, Mohammad Hasan Imaninasab<sup>5</sup>

<sup>1,4,5</sup> PhD. Candidate of Health Policy, Department of Health Service Management, School of Health Management and Information Sciences, Tehran University of Medical Sciences, Iran

<sup>2</sup> Health Management and Economics Research Center, Department of Health Service Management, School of Health Management and Information Sciences, Tehran University of Medical Sciences, Iran

<sup>3</sup> Associated Professor, Department of Health Service Management, School of Health Management and Information Sciences, Tehran University of Medical Sciences, Iran

Correspondence: Hesam Seyedin, PhD, Assistant professor, Health Management and Economics Research Center, School of Health Services Management, Tehran University of Medical Sciences, Tehran, Iran

Email: [hseyedin@tums.ac.ir](mailto:hseyedin@tums.ac.ir)

**Background:** Rapid changes in the environment of organizations and its complexity forces organizations to develop their capacities and knowledge to sustain in this competitive world. In the health services hospitals play the most important role and are very expensive and complicated organizations. These organizations are dealing with accelerating pace of changes and need to adapt with the continuously changing situations organization to work and sustain in the complex and uncertain environment. **Objective:** The paper is aimed to identify and rank the factors that hinder hospitals to become learning organizations. Also strategies for facilitating and accelerating the process of learning are presented. **Methods:** This research is a descriptive survey. Data were collected using a 26-item questionnaire and were analyzed in SPSS using chi-squared test, binomial test, Friedman test, and AHP. The population of the research consisted of 547 employees of a general hospital in Tehran, and sample size of 157 was calculated at the 0.05 significance level. **Results:** There is a significant positive relationship between organizational learning and organizational culture, team learning, systems thinking, shared vision, and personal mastery. Poor team learning and lack of a shared vision were ranked respectively as the most and the least important barriers in organizational learning. **Conclusion:** Based on this study the most important barrier that hinders organizational learning is team learning and team working. Considering the effects of different variables on organizational learning some recommendations provided which help in transforming the studied hospital and others into a learning organization.

[Ahmad Ahmadi Teymourlouy, Hesam Seyedin, Soudabeh Vatankhah, Hossein Shabanineghad, Mohammad Hasan Imaninasab. **Organizational Learning in a General Hospital.** *Life Sci J* 2013;10(11s):242-248] (ISSN:1097-8135). <http://www.lifesciencesite.com>. 43

**Keywords:** Organizational Learning, Learning Organization, Knowledge Management, Hospital management

### Introduction

The concept of “Learning Organization” refers to an organization that facilitates the learning of its members and continuously transforms itself. Many manager and scholars try to utilize the principles of organizational learning in practice. In a learning organization, the employees are constantly creating, acquiring, and transferring knowledge. Organizational learning significantly affects the behavior of employees and the organization and enables them to sustain in competitive environment.

The contemporary age is characterized by change and uncertainty, where social, technological, and economic factors heavily affect the business environment. If organizations do not adapt themselves to the current competitive setting, they will not be able to survive. The key to survival is the ability to acquire knowledge and information from environmental changes as well as internal and external experiences.

Learning organizations can quickly adapt to the changes and can secure more competitive advantages (Senge, 1990).

Result of a research shows that increasing knowledge and experience in the employees of an organization leads to successful performance. The idea of learning organization forces enterprises to evolve and adapt to their environment. However, studies in Iran show that the majority of organizations are not competent with such characteristics as personal mastery, shared vision, and team learning (Albadavi & Shafai, 2002). Being aware of the characteristics of a learning culture is the first step for learning organization.

Iran’s 2025 Vision as well as the fourth and fifth development plans underlines the importance of creating the necessary infrastructure for the development of knowledge-based activities in both public and private sectors. Considering the fast

scientific and technological advancements, organizations must accelerate the process of learning and promoting organizational skills. The paper is aimed to identify and rank the factors that hinder hospitals to become learning organizations. Also, strategies for facilitating and accelerating the process of learning are presented.

## Review of the Literature

### Organizational learning and learning organization

The concept of “learning organization” was coined by Peter Senge in 1990. It refers to an organization that facilitates the learning of its members and continuously transforms itself. In a learning organization, the employees are constantly creating, acquiring, and transferring knowledge. Organizational learning significantly affects the behavior of employees and the organization and enables them to sustain in competitive environment.

### Definitions of organizational learning

From an individual perspective, changing behavior is regarded as the cornerstone of learning. In the organizational setting, learning can be defined as increase in individual or organizational capacity or capability that leads to effective performance (Rahnavard, 1999). There are various definitions for organizational learning:

- Argyris and Schon (1978), as pioneers in this context, define organizational learning as “detection and correction of error”.
- Fiol and Lyles (1985) define it as “the process of improving actions through better knowledge and understanding”.
- Dodgson (1993) describes organizational learning as “the ways firms build, supplement, and organize knowledge and routines around their activities and within their cultures, and adapt and develop organizational efficiency by improving the use of the broad skills of their workforces”.
- Fisher and White (2000) define organizational learning as “a reflective process, played out by members at all levels of the organization, that involves the collection of information from both the external and the internal environments. This information is filtered through a collective sense-making process which results in shared interpretations that can be used to instigate actions resulting in enduring changes to the organization’s behavior and theories in use”. This definition by Fisher and White suggests that organizational learning is a process by which information is gathered and interpreted through a cognitive, social process. The accumulated information represents an organization’s knowledge base. Learning organizations use this knowledge to

foster innovation and build organizational effectiveness (Kreitner & Kinicki, 2007).

- Dixon (1994) defines organizational learning as “the intentional use of learning processes at the individual, group and system level to continuously transform the organization in a direction that is increasingly satisfying to its stakeholders”.

Given these definitions, we can conclude that organizational learning is a process that involves acquisition of knowledge and improvement of performance over time. That is, organizations learn, change, and evolve their functions over time and increase their innovation and effectiveness.

### Important factors in organizational learning

There are many factors that affect organizational learning, the most important of which are five-factor model of Peter Senge (1990). Considering the models discussed in the previous section, the factors that affect organizational learning can be listed as follows:

#### *Organizational culture*

According to the majority of theorists, culture is an important factor that directly or indirectly affects organizational learning. Organizational culture is the expression of an organization’s collective values, beliefs, and behaviors. Just as nations have distinct cultures, organizations have distinct way of believing, thinking, and acting that are manifested by symbols, heroes, rituals, ideology, and values (Marquardt, 2002 Garvin, 2008). A rich, adaptable culture creates relationships and enhances learning by encouraging values such as teamwork, self-management, empowerment, and sharing (Marquardt, 2002). The only way for organizations to evolve is to change the culture and performance of managers and employees by their values, beliefs, and accepted norms (Borumand, 2003). The culture of many organizations may not be anti-learning, but it may not be for learning either. Such a culture does not encourage risk-taking and new ideas and focuses on the status quo (Marquardt, 2002).

Argyris introduced the concept of organizational defensive routines as a chief obstacle against organizational learning. All organizations develop such routines over time (Argyris 1993). A rich, adaptable culture creates relationships and enhances learning by encouraging values such as teamwork, self-management, empowerment, and sharing (Marquardt, 2002). The following steps are the guide to successful development of learning organizational culture:

- Create and communicate a shared vision
- Make information accessible to every agent of the organization
- Assist agents through the change process by anticipating and managing change

- Value, reward, and share learning
- Build trust and autonomy
- Empower agents to act
- Encourage and support the need to take risk
- Commit to training and development
- Continuous product and service improvements
- Manage organization's knowledge. Keep information current, archive historical knowledge, and organize increasing volumes of information (Marquardt, 2002).

#### *Team learning*

Peter Senge (1990) refers the learning team as the core of learning in any organization. Of course he argues that collective learning is based on a shared vision and personal capabilities of the individuals within the team. Senge's ideas draw heavily on the work of David Bohm, a contemporary quantum physicist, who approached thought as a collective phenomenon. Team learning starts with dialogue, and unless the teams learn, the organizational learning will not take place (Lick, 2006). Team learning is a process that prepares individuals to work in groups to exchange constructive ideas instead of posing their ideas against others (Borumand, 2003). In dialogue, a group explores complex difficult issues from many points of view. Individuals suspend their assumptions but they communicate their assumptions freely. The result is a free exploration that brings to the surface the full depth of people's experience and thought, and yet can move beyond their individual views (Senge, 1991).

#### *Personal mastery*

Personal mastery is "a discipline of continually clarifying and deepening our personal vision, of focusing our energies, of developing patience, and of seeing reality objectively" (Senge, 1991). It refers to a special level of proficiency, similar to that of the master craftsman who is committed to lifelong learning and continually improves the skills. It entails a commitment to continuous learning at all levels of the organization (Marquardt, 2002). Therefore, personal mastery is a cornerstone of learning organization because a company's commitment and capacity for learning is the sum of each individual member (Marquardt, 2002).

#### *Shared vision*

The idea that always inspires organizations in terms of leadership is the capacity to create a shared vision of the future. Shared vision gives individuals and organizations "stars to steer by". Shared vision is an organizational resource, whereby individuals share an image of the future they wish to create. The primary purpose of the shared vision is to build a sense of

commitment and common direction (Senge 1999). It is hard to think of any organization that has achieved and sustained some measure of greatness without a deeply shared vision. The first and probably most important step in becoming a learning organization is building a solid foundation based on a shared vision of learning. Learning must become an integral part of an organization's shared vision. Shared vision provides the focus and energy for learning and impels people toward action (Marquardt, 2002).

#### *Systems thinking*

Systems thinking represents a conceptual framework to make full patterns clearer and determine how to change them effectively (Marquardt, 2002). System thinking is a discipline for seeing wholes. It is a framework for linear cause-effect chains, seeing underlying structures rather than events, seeing patterns of change rather than snapshots (Senge, 1990). Changes in one part of the organization can affect other parts with surprising consequences (Marquardt, 2002). In systems thinking, people must learn how to think about complex problems (Borumand, 2003).

This type of thinking is the most subtle aspect of a learning organization. It is a new way for people to understand themselves and the world around them, and to regard themselves as connected to rather than separated from it. Achieving systems thinking requires a shared vision, mental models, team learning, and personal mastery. These five factors must be developed as a single entity. Integration of these factors is much more difficult than using them separately. Successful leaders often are "systems thinkers" to a considerable extent. They focus less on day-to-day events and more on underlying trends and forces of change. In contrast, people with non-systemic thinking fail to consider the long-term results of their actions and fail to conceptually understand the internal links between the components (Senge, 1991).

#### **Hypotheses and Conceptual Model**

Based on the literature review and the basic principles of learning organization and organizational learning the following statements were defined as the hypotheses of this study (Senge, 1996 Marquardt 2002). The culture of the studied hospital prevents organizational learning.

1. Poor team learning in the hospital prevents organizational learning.
2. Non-systemic thinking in the hospital prevents organizational learning.
3. Lack of a shared vision in the hospital prevents organizational learning.
4. Poor personal mastery in the employees of the hospital prevents organizational learning.

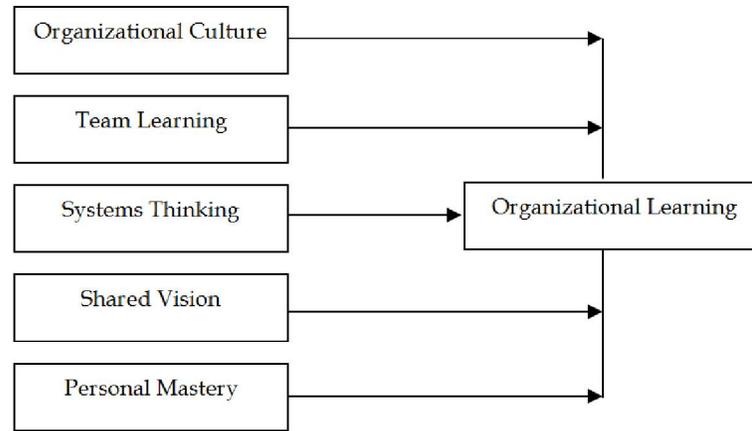


Figure 1. The conceptual model of the research

### Methodology

The present research is a descriptive survey. Data were collected using a 26-item questionnaire and were analyzed in SPSS using chi-squared test, binomial test, Friedman test, and AHP.

#### Population and sample

The population of the present research consisted of 547 employees of a general hospital in Tehran, and sample size was calculated to be 157 using Cochran's formula at the 0.05 significance Level. Considering sample size, 220 questionnaires were distributed among the population and 160 questionnaires were returned.

#### Validity and reliability of the questionnaire

To examine the content validity of the questionnaires, they were distributed among a sample of management experts and academic members and practitioners, and their constructive views were considered in modifying the items. Then the questionnaires were distributed among 20 subjects to resolve any ambiguity. As a result some items were removed or replaced and the final version of the instrument was verified by the professors and practitioners.

Cronbach's alpha was used to determine the reliability of the questionnaire. 30 participants were randomly selected from employees of a general hospital and the questionnaire was distributed among them, leading to a Cronbach's alpha of 0.95 which suggests the high reliability of the questionnaire.

#### Analytic hierarchy process (AHP)

AHP is a multicriteria decision-making technique that is used to organize and analyze complex decisions. This method provides a framework for team work and cooperation in making decisions or solving problems (Al Khalil, 2002). AHP is an effective means for structuring and modeling multicriteria problems and is extensively used in different management decisions (Wolfslehner et al., 2005). In this study AHP was used to rank the barriers to organizational learning in the hospital.

### Results

Chi-squared test was applied to examine the relationship between the variables. The results are provided in Table 1. Based on the results in Table 1, the significance level is less than 0.05, which shows the significant relationships between the variables.

Table 1. The results of chi-squared test

Variables	$\chi^2$	Sig.	Result
Organizational Culture	9.452	0.000	Significant positive relationship
Team Learning	10.371	0.000	Significant positive relationship
Systems Thinking	6.827	0.000	Significant positive relationship
Shared Vision	11.274	0.000	Significant positive relationship
Personal Mastery	8.632	0.000	Significant positive relationship

Friedman test was used to determine effect of the variables on organizational learning. Considering the significance levels, all the variables significantly affect organizational learning (Table 2).

Table 2. The results of Friedman test

Variables	$\chi^2$	Sig.	Result
Organizational Culture	9.452	0.000	Significant positive effect
Team Learning	10.371	0.000	Significant positive effect
Systems Thinking	6.827	0.000	Significant positive effect
Shared Vision	11.274	0.000	Significant positive effect
Personal Mastery	8.632	0.000	Significant positive effect

This test was applied to examine the levels of the variables. The results are provided in Table 3. Table 3 shows that all the variables except team learning are at a desirable level.

Table 3. The results of the binomial test

Variables	Test Proportion	Observed Proportion	Result
Organizational Learning	0.5	0.7	Desirable
Organizational Culture	0.5	0.6	Desirable
Team Learning	0.5	0.4	Undesirable
Systems Thinking	0.5	0.8	Desirable
Shared Vision	0.5	0.6	Desirable
Personal Mastery	0.5	0.6	Desirable

### *Analytic hierarchy process*

AHP was used to rank the barriers to organizational learning.

Table 4 shows that poor team learning, non-systemic thinking, and poor personal mastery of the employees are the most important barriers to organizational learning.

Table 4. The results of AHP

Variables	Poor Organizational Culture	Poor Team Learning	Non-Systemic Thinking	Lack of a Shared Vision	Poor Personal Mastery	Mean
Poor Organizational Culture	0.07	0.07	0.43	0.18	0.17	0.18
Poor Team Learning	0.12	0.29	0.24	0.32	0.23	0.23
Non-Systemic Thinking	0.23	0.18	0.18	0.18	0.22	0.22
Lack of a Shared Vision	0.49	0.07	0.06	0.08	0.17	0.17
Poor Personal Mastery	0.08	0.39	0.07	0.24	0.20	0.20

### **Discussion**

Organizational learning and learning organization has attracted attention of many scholars and leaders of organizations during recent years.

Recognizing the barriers of organizational learning will help the organization to move toward learning organizations. In near future all organizations must be categorized under the learning organizations otherwise

they will not sustain in the world (Senge 1999). Poor organizational culture, poor team learning, non-systemic thinking, lack of a shared vision, and poor personal mastery were identified as the barriers to organizational learning. There are significant positive relationships between organizational learning and organizational culture, team learning, systems thinking, shared vision, and personal mastery. Moreover, the results of the binomial test indicated that all the variables except team learning were at a desirable level. Based on Peter Senge the most important barrier in front of organizational learning is establishing effective teams and how to work as a team. He believes that lack of time for learning and lack of commitment to the objectives of teams are the challenges in team learning and working as a team in organizations (Senge 1999).

In our research, poor team learning and lack of a shared vision were ranked respectively as the most and the least important barriers. Some scholars believe that non-competition and exclusive environment of an organization along with internal political environment and culture are also some barriers to organizational learning. In a research resistance of managers to learning, lack of time for learning, performance orientation was identified as the barriers in transforming to a learning organization (Marquardt 2002).

### **Conclusion**

Based on this study the most important barrier that hinders organizational learning is team learning and team working. Other barriers have less influence than team learning. Considering the effects of different variables on organizational learning, the following recommendations can be provided which help in transforming the studied hospital and other into a learning organization.

#### *Organizational culture*

1. Reinforcing the spirit of innovation and creativity by promoting and supporting creative employees.
2. Reinforcing the spirit of receptiveness in managers by holding short-term courses for management skills, especially in terms of communication skills and conflict management.
3. Allowing the employees to participate in decision-making and developing the culture of group decision-making through an employee suggestion system.
4. Increasing the spirit of risk taking in the employees.

5. Providing job security for managers and employees, particularly those who are creative and innovative.
6. Reducing organizational control to increase self-control for employee

#### *Team learning*

1. Teaching teamwork skills in short-term periods.
2. Holding workshops for developing the attitude of team learning.
3. Teaching effective communication skills.
4. Holding team making courses for managers and supervisors.
5. Building the spirit of teamwork in employees and managers using different incentives.
6. Creating teams based on team building principles and the experience of successful firms.

#### *Systems thinking*

1. Holding workshops to introduce systems thinking to managers and employees.
2. Holding problem-solving courses with systems approach for both managers and employees.
3. Providing job feedback to employees.

#### *Shared vision*

1. Vision of hospitals must be reviewed and modified to include terms and concepts that support organizational learning.
2. Managers and employees at all levels of organizations must participate in the development of a shared vision.
3. Managers of hospitals must constantly support the shared vision and highlight its importance in different ceremonies and speeches. This helps to change the attitude of the employees allowing them to have a clear, well-defined view of the future of the organization.

#### *Personal mastery*

1. Holding short-term courses for managers that correspond to environmental changes.
2. Holding short-term courses to meet the learning needs of the employees and technicians.
3. Determining the promotion path of individuals based on constant learning.
4. Determining the educational needs of the employees and developing their skills based on the evaluation results.
5. Holding scientific festivals to introduce selected employees in different areas of learning and personal skills.

**Conflict of Interest:** None declared

### References

1. Al Khalil, M. I. (2002), "Selecting the Appropriate Project Delivery Method Using AHP", *International Journal of Project Management*, 20, 469-474.
2. Albadavi, A., & Shafai, R. (2002), "Strategies for Building Learning Organizations in Iran", *Iranian Journal of Management*, 57, 5-28.
3. Argyris C, Schön D. Organizational learning: a theory of action perspective. *Reis*. 1997(77/78):345-8.
4. Argyris C. Knowledge for action: A guide to overcoming barriers to organizational change: ERIC; 1993.
5. Argyris, C., & Schon, D. A. (1978), "Organizational Learning: A Theory of Action Perspective", Addison-Wesley.
6. Argyris, C. (1985), "Strategy, Change, and Defensive Routines", Boston: Pitman.
7. Borumand, Z. (2003), "Improving and Restructuring Organizations", Tehran: Heyat Publications.
8. Dixon, N. (1994), "The Organizational Learning Cycle: How We Can Learn Collectively", McGraw-Hill.
9. Dodgson, M. (1993), "Organizational Learning: A Review of Some Literatures", *Organization Studies*, 14, 375-394.
10. Fiol, C. M., & Lyles, M. A. (1985), "Organizational Learning", *Academy of Management Review*, 10, 803-813.
11. Fisher, S. R., & White, M. A. (2000), "Downsizing in a Learning Organization: Are there Hidden Costs?", *Academy of Management Review*, 25, 224-251.
12. Garvin DA, Edmondson AC, Gino F. "Is yours a learning organization?" *Harvard business review*. 2008;86(3):109.
13. Kreitner, R., & Kinicki, A. (2007), "Organizational Behavior", 8th Edition, McGraw-Hill/Irwin.
14. Lick, D. W. (2006), "A New Perspective on Organizational Learning: Creating Learning Teams", *Evaluation and Program Planning*, 29, 88-96.
15. Marquardt, M. J. (2002), "Building the Learning Organization: Mastering the 5 Elements for Corporate Learning", 2nd Edition, Nicholas Brealey Publishing.
16. Rahnnavard, F. (1999), "Organizational Learning and Learning Organization", *Iranian Journal of Public Management*, 13, 11-22.
17. Senge, P. M. (1990), "The Leader's New Work: Building Learning Organizations", *Sloan Management Review*, 32, 7-23.
18. Senge P.M. (1999), "The dance of change: The challenges to sustaining momentum in a learning organization": Random House Digital, Inc.; 1999.
19. Senge P.M. (2006), "The fifth discipline: The Art & Practice of the Learning Organization" Crown Business.
20. Wolfslehner, B., Vacik, H., & Lexer, M. J. (2005), "Application of the Analytic Network Process in Multi-Criteria Analysis of Sustainable Forest Management", *Forest Ecology and Management*, 207, 157-170.

8/2/2013