Learning Organization, an Inevitable Necessity in Organizations in the Age of Knowledge-Orientation: Evidence from Universities of Iran

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Abstract

The event that has been of a specific importance concerning our countries' universities has been their recent years' movement towards changing into 'learning organizations' that has been one of the goals of the educational system in Iran. Hence, the goal underlying the present study was to specify how much the components of learning organization are applied by the two universities of Tehran Shahid Beheshti and Tehran Islamic Azad (central unit) and then to compare the two universities with respect to how much they use these components. The methodology for the research was descriptive-gauging for which a sample of 200 people, including managers, members of the scientific group and the employees working in the two universities, were selected through simple random sampling. Having analyzed the research data through One-sample-t-test, analysis of variance, Scheffe-test and t-Hetling, the results indicated that the amount of using the component 'personal masters' in Tehran Azad university is more than average, while this amount is about average in Tehran Shahid Beheshti University. Moreover, the amount of using the component 'mental patterns' is estimated less than average in both universities, and the amount to which the components 'shared vision', 'team learning' and 'system thinking' are used is estimated more than the criterion level in the Islamic Azad University of Tehran, while this amount is less than the average level in Tehran Shahid Beheshti University.

Keywords: Learning Organization, Personal Masters, Shared Vision, Mental Patterns, Team Learning System Thinking
1. Introduction

Change, as the only fixed element of time, is among the characteristics of today's quickly transforming world. As the need to change gets more and more apparent in societies, people and organizations discover that any kind of movement beyond the previous or present status involves learning (Ashton, 2004). For organizations to increase their organizational capabilities, they should learn to act successfully in environment full of permanent integrations, quick developments of technology, wide social changes and cumulative competition (Garvin, 2000). To become compatible with new changes, there should come into view an organization consistent with new conditions, i.e. the one that provides the ground for organizational growth and development. The most successful of these organizations since 1990s has been 'learning organizations' (McClendon, 1987). As universities and other supreme training centers are among the institutions that should be at least one step ahead of other institutions and organizations with respect to knowledge, science, technology and behavioral patterns (Theron, 2002), and due to the prominent role of university in accounting for global and social needs and expectations, it is necessary for the supreme training centers and educational organizations that they constantly improve the quality of their processes and activities (Franklin, Hodgkinson and Stewart 1998). The belief assumed by most Iranian authorities and those active in the area of management in different societies is that university scholars consider the problems of universities in Iran as solved, thus put lower priorities for transformation to happen in their systems (Sharman, 2005).

However, the studies done by some other Iranian scholars are indicative of the fact that the quality of learning is not of a desirable level in most universities of Iran. Iran is among those developing countries in which the little studies in its learning system has caused many shortcomings and deficiencies in managerial, official and educational areas (Hoveida, 2008). Therefore, the prerequisite for any kind of movement toward development and growth is creativity in putting traditional methods next to each other and using novel methods of management. As a matter of fact, learning organization has been among the most successful of these methods in the 21st century (Serrat, 2009).

Lin (2004) investigated the perceptions of members of scientific group with respect to learning organizations and their growth and development. The result was that the members showed much more importance to the factors of their own growth and development with regard to the principles of learning organizations. The results of the studies done by Ekman (2004) indicated that movement toward learning organizations requires the occurrence of changes in beliefs, mental patterns, skills and methods. In the research done by Burbur (2006), high school managers believed in five principles, necessary for the development and protection of schools, including: mental patterns, shared vision, team learning, personal masters and system thinking. They also believed that it is necessary to form a leadership team for the movement toward learning organization and to have creativity and shared vision for the attainment of these changes.

According to Taylor (2008), there are some obstacles on the way of learning organizations to be formed in countries. These obstacles, to him, include: incorrect beliefs of employees about the power of managers and managers' tendency to power, monopolistic and competitive environments, nonsystematic thinking, scorning and false beliefs about employees and organization. Berarpur (2006), in his research, examined the obstacles for learning in state universities. The results indicated that if those who are responsible for educational-scientific deeds are concerned about the improvement of learning in the countries' universities, they should do their best to implement the following six orders of learning: 1. Strengthening the national identity and pride instead of dealing with topics such as ethnocentrism, discrimination, and favoritism. 2. Providing a shared vision on the basis of directing foundations of national perspective and conveying and announcing it to all organizational layers. 3. Creation and development of shared mental models in organization scale. 4. Developing people's personal skills at the scale of organization in order to solve real problems of organization and society. 5. Providing desirable conditions for a constructive discussion to occur among the members of organization.
Burbur (2006) in his studies found that non-profit schools provide more learning than their state counterparts. In a study done by Hoveida (2008), the factors preventing the components of learning organization and the improvement of training quality in universities to be realized are known the various viewpoints and motivations of the members of scientific group and university managers and also their having no suitable opportunity and conditions to share and exchange ideas.

Taking into account what mentioned above, a study was done to investigate how much learning universities provide, so that to offer strategies for suitable changes and transformations to occur in training and learning, and eventually to make the improvement of processes and activities of universities permanent. The present research uses the principles and skills suggested by Peter Senge (1990) to examine the amount of learning provided by the two universities of Tehran Shahid Beheshti and Tehran Islamic Azad (central unit).

2. Definition of Learning Organization
According to Senge (1995), learning organization is one in which people are perpetually trying to develop their capacity to get to the expected results, a place where new patterns for thinking are trained, group inclinations and tendencies are realized and employees are constantly trained how to learn with each other. Having a systematic view, Marquard (1996) knows learning organization as one where members learn collectively and change themselves repeatedly to find the ability to gather, manage and use information in a better way, and they wish to see all the organization successful. Based on Skyrme (2002), learning organization benefits from the systems and processes helping it to strengthen its own and its members' capacity so that to realize the stable goals (Huber, 1991). In another definition, learning organization is one that not only supports the motivations of its members in learning and creativity, but also promotes the ways and methods for strengthening, equalizing, and transmitting the learning and creativity among the members of organization and the whole organization.

3. Characteristics of Learning Organization
Describing the Characteristics and attributes of learning organization can help us gain a more comprehensive image of these organizations and recognize them better (Iran's Technical Center of Information, 2009). Marquard (2002) has identified five of these characteristics (i.e. of learning organization).

1. Organizational activeness in learning at individual, group and organizational levels.
2. Management of knowledge or the state of creation, transmission, revision, participation and utilization of knowledge.
3. Organizational revolution for the desired vision, culture, strategy and structures to be acquired.
4. Electronic usages such as informative systems, learning technology and electronic supportive systems of performance.
5. Making employees, managers, and customers more powerful.

Some other characteristics of learning organization are that it predicts future problems and deficiencies, pays attention to the environment outside organization, seeks for permanent growth and development, and gives awards for creativities and innovations (Duckett, 2002).

4. Components of Learning Organization
What is important in discussion about learning organization is how to change into a learning organization. To answer this question it is necessary to pay attention to the components of learning organization. Senge (1990) considers the following five principles and skills necessary for a learning organization.
1. Personal Master: is organization members' commitment to continuous learning and their permanent support for any experience of development and progress.

2. Shared Vision: is an image about the employees' expected future and practical principles and methods to get to this future.

3. Mental Patterns: reflects the individual's mentality that coerces him to act, forming his perspective, decisions and actions.

4. Team Learning: teams mobilize their energy and action to get to an ability and insight more than the sum of members' talents.

5. System Thinking: is a method of thinking in which the superiority of whole over part is confirmed (Heidary Tafreshi, Yusefi Saeed Abadi and Khadivi, 2002).

Senge (1990) presents the abovementioned five principles in the form of a coherent set of theories and performances, emphasizing the importance of the principle of 'system thinking'. As a matter of fact, he has named the fifth order as system thinking, because, to him, it forms the cornerstone for all other five orders of learning (Senge, 2006). This principle causes other principles to be consolidated, combining them in the form of a coherent set of theories and performances (Nunako & Takuchi, 2006).

To create learning organization, Marquard (2002) has presented a systematic model, believing that the skills emphasized by Senge (1990) are not by themselves able to turn organization into a learning organization. Actually, he believes that the creation of a learning organization without the recognition and development of the five related sub-systems neither are possible nor, in case of presence, will remain stable. These sub-systems include: learning sub-system, organization sub-system, people sub-system, knowledge sub-system and technology sub-system.

In his recommended model, Marquard (2002) refers to the five principles considered by Senge (1990) as the components for the creation of learning organization, maintaining that these components are the skills which are necessary only for subsystems and believes that learning organization occurs by preparing the people inside and outside organization and requires systematic management of knowledge and application of technology.

In another theory, Watkinz and Marsick (1996) presented a systematic model of learning organization. In this approach the two main foundations of organization, i.e. people and structure, are combined. The model presents seven components for learning organization at individual, team and organizational levels: permanent learning, investigation and conversation, team learning, personnel empowerment, systematic link, strategic leadership and embedded system, referring to the organization's attempt to create systems for the realization of learning and participation in it (Hoveida, 1386).

In the model of Watkinz & Marsick (1996), 'systematic link', 'personnel empowerment' and 'team learning' associate the components of Sange (1990), in addition to the fact that here the emphasis is on organizational structure, as well. In this model, besides dealing with people and teams, organizational structure also is considered as the factor facilitating the creation of systems so that continuous learning is realized for all members of organization in all levels. Marquard (2002) has also emphasized the organizational structure in organization's subsystem.

Examining the literature of learning organization and doing some studies in organizations, Claver-Cortés, Patrocinio and Eva (2007) has presented some specific strategic foundations and managerial activities which are prerequisite for learning organization. According to Claver-Cortés, Patrocinio and Eva (2007), learning organization has five strategic foundations, including: clarity of vision, leadership commitment and empowerment, experimentation, effective transmission of knowledge, team work and group problem solving. The pattern recommended by Claver-Cortés, Patrocinio and Eva (2007) is much similar to the learning organization pattern presented by Senge (1990), with the difference being that Claver-Cortés, Patrocinio and Eva (2007) in their model talks about the creation and promotion of knowledge in organization, while the term knowledge is seldom used by Senge (1990). As a matter of fact, Senge (1990) only notes that for knowledge to be created, a
serious activity should be done after learning occurs; but, he presents no theory that specifies how to create knowledge. However, to Marquard (2002), knowledge is the most important property for any organization. Watkinz and Marsick's 'leadership commitment and empowerment' is referred to as 'strategic leadership'. Marquard (2002) also in his systematic model considers the power of managers and leaders, which is one of the elements of the sub-system 'people', necessary for the development and promotion of organizational learning.

Moreover, Claver-Cortés, Patrocinio and Eva's component of 'experimentation' is consistent with that of 'investigation and conversation' presented by Watkinz & Marsick (1996), because both of them emphasize that to use opportunities, it is necessary to create the culture of inquiring and trial and error. In this research the following questions are put forward:

1. To what extent are learning organization components used in Tehran Shahid Beheshti University and Tehran Islamic Azad University (central unit)?

   Relating to the above question, the research is seeking to answer five peripheral questions of the amount to which the components of learning organization including personal masters, mental patterns, shared vision, team learning, and eventually system thinking are applied.

2. How much difference is there between the amount of using learning organization components on the basis of their demographic features (gender, organizational status (manager, member of scientific group and employees))?

5. Methodology

The research Methodology was survey-qualitative, and the statistical population for it was composed of managers, members of scientific group and employees of the two aforementioned universities of Tehran Shahid Beheshti (State University) (n: 347) and Tehran Islamic Azad (central unit) (Non-State University)(n: 377). Total number of participants was 751 persons. To specify the main sample, a pretest was given to all those people and using the formula of n, 200 people were selected and then the same number of questionnaires was randomly distributed among the personnel of the two universities. To illicit information from the related population, questionnaire, which is considered as the direct method for research, was used.

The questionnaire was a research-made one including two parts of information. In the first part, demographic features of respondents were asked in the form of four questions. The second part of the questionnaire included 40 questions of closed-response items, asking all the five components for the use of learning organization. The questions in the questionnaire were devised in likert scale with five degrees. With the selection of one of the alternatives in the scale, the respondents could present their views with regard to the questions raised. In the scale, the more one moves from lower values to higher values, the selected point will have a better situation in environment. Before the questionnaire was finally distributed to respondents, it was pilot tested to make sure if it is applicable. To do so, 35 respondents filled the questionnaire up and then Cronbach's alpha coefficient was applied to determine its reliability and using the software SPSS, Cronbach's alpha of the questionnaire was computed to be 85%.

6. Data Analysis

In this part, the findings obtained from each of the questions in the questionnaire were analyzed.

<table>
<thead>
<tr>
<th>Components of Learning Organization</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Masters</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Azad University</td>
<td>3.494</td>
<td>0.605</td>
<td>8.453</td>
<td>0.001</td>
</tr>
<tr>
<td>Shahid Beheshti University</td>
<td>3.095</td>
<td>0.616</td>
<td>1.397</td>
<td>0.001</td>
</tr>
<tr>
<td>Mental Patterns</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Azad University</td>
<td>3.038</td>
<td>0.873</td>
<td>0.461</td>
<td>0.001</td>
</tr>
<tr>
<td>Shahid Beheshti University</td>
<td>2.639</td>
<td>0.776</td>
<td>-4.175</td>
<td>0.001</td>
</tr>
</tbody>
</table>
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Table 1: Comparing the Means of 'Learning Organization Components' from the Point of View of the Employees of the Two Universities of Tehran Shahid Beheshti and Azad - continued

<table>
<thead>
<tr>
<th>Shared Vision</th>
<th>Azad University</th>
<th>Shahid Beheshti University</th>
<th>P</th>
<th>F</th>
<th>T^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.284</td>
<td>2.878</td>
<td>0.704</td>
<td>4.176</td>
<td>-1.517</td>
<td>0.001</td>
</tr>
<tr>
<td>Team Learning</td>
<td>Azad University</td>
<td>Shahid Beheshti University</td>
<td>3.185</td>
<td>1.821</td>
<td>-3.739</td>
</tr>
<tr>
<td>2.701</td>
<td>0.719</td>
<td>0.001</td>
<td>3.077</td>
<td>-3.195</td>
<td>0.001</td>
</tr>
<tr>
<td>System Thinking</td>
<td>Azad University</td>
<td>Shahid Beheshti University</td>
<td>3.229</td>
<td>0.769</td>
<td>3.077</td>
</tr>
<tr>
<td>2.718</td>
<td>0.794</td>
<td>0.001</td>
<td>-3.195</td>
<td>55.553</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: The Amount of Using 'Learning Organization Components' in the Two Universities of Tehran Shahid Beheshti and Azad

<table>
<thead>
<tr>
<th>University</th>
<th>P</th>
<th>F</th>
<th>T^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azad University</td>
<td>0.001</td>
<td>13.336</td>
<td>55.553</td>
</tr>
<tr>
<td>Tehran Shahid Beheshti University</td>
<td>0.001</td>
<td>13.787</td>
<td>56.755</td>
</tr>
</tbody>
</table>

**Question 6.1:** To what extent is the component 'personal masters' used in Tehran Shahid Beheshti University and Tehran Islamic Azad University (central unit)?

Based on the findings of table 1, the amount of t in the Azad University is bigger than the critical value at the significance level of 5%, but this amount for the Tehran Shahid Beheshti University is smaller than the critical value at the same alpha level. Comparing the mean of answers with the assumed mean of three showed that the amount of using 'personal masters' in the Azad university is more than average while this amount for the Tehran Shahid Beheshti University is about average; nevertheless, this mean in the likert scale with five degrees is around average which cannot be desirable for a university having learning organization. Other studies including that of Burbur (2006) and Seiyed Naghavi (1999) also showed that personal masters and self-achievement of managers and other personnel in private sectors and non-profit schools are more than public sectors.

**Question 6.2:** To what extent is the component 'mental patterns' used in Tehran Shahid Beheshti University and Tehran Islamic Azad University (central unit)?

Based on the findings of table 1, the observed t in both universities (Azad and Tehran Shahid Beheshti) is smaller than the critical value at the significance level of 5%. Comparing the mean of answers with the assumed mean of three showed that the amount of using 'mental patterns' is used in both Azad and Tehran Shahid Beheshti universities is smaller than the average level, which cannot be a desirable situation for these universities. The results obtained from the research of Taylor (2008) also indicated that incorrect beliefs of employees about the power of managers and also incorrect mental patterns of managers about employees and organization are the main obstacles for the creation of learning organization in Iran.

**Question 6.3:** To what extent is the component 'shared vision' used in Tehran Shahid Beheshti University and Tehran Islamic Azad University (central unit)?

Based on the findings of table 1, the observed t with regard to the component 'shared vision' is bigger than the critical value at the significance level of 5% in the Azad university, but it is smaller than average in the Tehran Shahid Beheshti university. Comparing the mean of answers when the assumed mean is three shows that the amount of using 'shared vision' is used in the Azad university is more than average, but this amount is smaller than average in the Tehran Shahid Beheshti university.

**Question 6.4:** To what extent is the component 'team learning' used in Tehran Shahid Beheshti University and Tehran Islamic Azad University (central unit)?

Based on the findings of table 1, the observed t in the Azad university is greater than the critical value at the significance level of 5%, but smaller than average in the Tehran Shahid Beheshti university. Comparing the mean of answers with the assumed mean of three showed that the amount of
using 'team learning' in the Azad university is more than average while this amount for the Tehran Shahid Beheshti University is less than average.

**Question 6.5:** To what extent is the component 'system thinking' used in Tehran Shahid Beheshti University and Tehran Islamic Azad University (central unit)?

Based on the findings of table 1, observed $t$ with respect to the component 'system thinking' is bigger than the critical value at the significance level of 5% in the Azad University and smaller than that in the Tehran Shahid Beheshti University. Comparing the mean of answers when their assumed mean was three showed that the amount of using system thinking in the Azad University was more than average but in the Tehran Shahid Beheshti University it was smaller than average. In the research of Burbur (2006), the feature 'system thinking' in state schools was estimated less than non-profit schools, and in the study done by Taylor (2008) and Berarpur (2006) also linear and non-systematic thinking and scorning were known to be the obstacles for the creation of learning organization in Iran organizations.

**The first main question:** To what extent are learning organization components used in Tehran Shahid Beheshti University and Tehran Islamic Azad University (central unit)?

Based on the findings of table 2, observed $t$ is significant in both universities of Azad and Tehran Shahid Beheshti at the alpha level of 0.01 ($p \leq 0.01$). Therefore, there is no difference between learning organization components from the viewpoint of the employees of the Azad and Tehran Shahid Beheshti universities.

Comparing the means of learning organization components from the viewpoint of the employees of the Azad and Tehran Shahid Beheshti universities showed that the component which was used the most was personal masters with the mean of 3.49. Shared vision with the mean of 3.28, and system thinking having the mean of 3.18 were in later ranks. The least amount of usage and application was dedicated to mental patterns with the mean of 3.03. Performing the test in the Tehran Shahid Beheshti University showed the same results. Like the Azad university, here also the components which were applied the most and the least were respectively related to personal masters with the mean of 3.09 and mental patterns with the mean of 2.63, and the components including shared vision with the mean of 2.89, system thinking with the mean of 2.71 and team learning with the mean of 2.70 were respectively located in between. It is noticeable that 'personal masters' is the only component in the Tehran Shahid Beheshti University acquiring a mean more than the average three.

**The second main question:** How much difference is there between the amount of using learning organization components on the basis of their demographic features (gender, organizational status (manager, member of scientific group and employees))?

Findings of table 3 showed that the observed $t$ is not significant at the alpha level of 0.05 ($p \leq 0.05$); therefore, there is no difference between learning organization components in the Azad and Tehran Shahid Beheshti universities as far as male and female employees are concerned. Based on the results obtained, it can be presumed that gender, by itself, cannot be one of the factors effective on the application of learning organization components. This result is not consistent with Chen (2004) who found that there is a statistical difference between teachers' perceptions of learning organizations based on their gender in different levels of education. The reason for this inconsistency can be the existence of cultural differences between nations.

**Table 3:** Comparing the Means of Learning Organization Components in the Azad and Tehran Shahid Beheshti Universities with Respect to Gender

<table>
<thead>
<tr>
<th>Components of Learning Organization</th>
<th>Female Mean</th>
<th>Female Standard Deviation</th>
<th>Male Mean</th>
<th>Male Standard Deviation</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal masters</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Azad University</td>
<td>3.491</td>
<td>0.529</td>
<td>3.495</td>
<td>0.632</td>
<td>0.035</td>
<td>0.970</td>
</tr>
<tr>
<td>Shahid Beheshti University</td>
<td>3.020</td>
<td>0.555</td>
<td>3.129</td>
<td>0.643</td>
<td>0.736</td>
<td>0.464</td>
</tr>
<tr>
<td>Mental patterns</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Azad university</td>
<td>2.982</td>
<td>0.791</td>
<td>3.059</td>
<td>0.904</td>
<td>0.399</td>
<td>0.691</td>
</tr>
<tr>
<td>Shahid Beheshti University</td>
<td>2.586</td>
<td>0.795</td>
<td>2.663</td>
<td>0.773</td>
<td>0.410</td>
<td>0.683</td>
</tr>
</tbody>
</table>
Table 3: Comparing the Means of Learning Organization Components in the Azad and Tehran Shahid Beheshti Universities with Respect to Gender - continued

<table>
<thead>
<tr>
<th>Component</th>
<th>Azad University Mean</th>
<th>Azad University Standard Deviation</th>
<th>Shahid Beheshti University Mean</th>
<th>Shahid Beheshti University Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared vision</td>
<td>3.209</td>
<td>0.612</td>
<td>3.311</td>
<td>0.735</td>
</tr>
<tr>
<td>Team learning</td>
<td>3.148</td>
<td>0.874</td>
<td>3.198</td>
<td>0.795</td>
</tr>
<tr>
<td>System thinking</td>
<td>3.294</td>
<td>0.795</td>
<td>3.205</td>
<td>0.764</td>
</tr>
</tbody>
</table>

The findings of table 4 indicated that the observed \( F \) in the Azad university is not significant at the alpha level of 0.05 (\( p \leq 0.05 \)) and as far as occupational status is concerned, there is no difference between the viewpoints of employees. However, the observed \( f \) with respect to the components of 'personal masters' and 'mental patterns' in the Tehran Shahid Beheshti University is significant at the alpha level of 0.05 (\( p \leq 0.05 \)); therefore, from the standpoint of employees, there is difference between the components of personal masters and mental patterns based on occupational status.

Table 4: Comparing the Means of Learning Organization Components in the Azad and Tehran Shahid Beheshti Universities with Respect to Occupational Status

<table>
<thead>
<tr>
<th>Components of Learning Organization</th>
<th>Manager Mean</th>
<th>Manager Standard Deviation</th>
<th>Member of Scientific Group Mean</th>
<th>Member of Scientific Group Standard Deviation</th>
<th>Employee Mean</th>
<th>Employee Standard Deviation</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Masters</td>
<td>3.508</td>
<td>0.622</td>
<td>3.651</td>
<td>0.567</td>
<td>3.361</td>
<td>0.608</td>
<td>2.560</td>
<td>0.082</td>
</tr>
<tr>
<td>Mental Patterns</td>
<td>3.258</td>
<td>0.697</td>
<td>3.166</td>
<td>0.837</td>
<td>2.843</td>
<td>0.909</td>
<td>2.302</td>
<td>0.105</td>
</tr>
<tr>
<td>Shared Vision</td>
<td>3.392</td>
<td>0.714</td>
<td>3.424</td>
<td>0.540</td>
<td>3.125</td>
<td>0.739</td>
<td>2.297</td>
<td>0.106</td>
</tr>
<tr>
<td>Team Learning</td>
<td>3.342</td>
<td>0.610</td>
<td>3.256</td>
<td>0.753</td>
<td>3.062</td>
<td>0.921</td>
<td>1.075</td>
<td>0.345</td>
</tr>
<tr>
<td>System Thinking</td>
<td>3.342</td>
<td>0.752</td>
<td>3.266</td>
<td>0.705</td>
<td>3.117</td>
<td>0.821</td>
<td>0.304</td>
<td>1.205</td>
</tr>
</tbody>
</table>

The results of Scheffe-test in table 5 indicates that the amount of using personal masters in the Tehran Shahid Beheshti university from the viewpoint of managers and members of scientific group was more than the employees and the amount of using mental patterns from the standpoint of members of scientific group was more than the employees. This issue is approved in the studies of Lin (2004) and Ekman (2004) who maintain that managers and members of scientific group, due to their particular status and position, are more sensitive and pay more attention to the improvement and promotion of their personal capabilities, which is the reason for their being ready to change their mental patterns.

Table 5: Paired-Comparing of the Difference between the Mean of Personal Masters from the Standpoint of the Employees of the Tehran Shahid Beheshti University Based on Occupational Status

<table>
<thead>
<tr>
<th>Occupational Status</th>
<th>Difference of Mean</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Masters</td>
<td>0.539</td>
<td>0.001</td>
</tr>
<tr>
<td>Member of Scientific</td>
<td>0.471</td>
<td>0.003</td>
</tr>
<tr>
<td>Mental Patterns</td>
<td>0.490</td>
<td>0.016</td>
</tr>
</tbody>
</table>
7. Conclusion

For organizations to increase their organizational capabilities, they should learn to act successfully in environment full of permanent integrations, quick developments of technology, wide social changes and cumulative competition. To become compatible with new changes, there should come into view an organization consistent with new conditions, i.e. the one that provides the ground for organizational growth and development. The most successful of these organizations since 1990s has been 'learning organizations'. The event that has been of a specific importance concerning our countries' universities has been their recent years' movement toward changing into 'learning organizations' that has been one of the goals of the educational system in Iran. Hence, the goal underlying the present study was to specify how much the components of learning organization (based on the five components of learning organization presented by Peter Senge (1990)) are applied by the two universities of Tehran shahid Beheshti and Tehran Islamic Azad (central unit) and then to compare the two universities with respect to how much they use these components. To analyze the research questions, different statistical methods were used in two parts of descriptive and inferential statistics. In the descriptive part, frequency, percentage, mean and standard deviation were calculated and in the part of inferential statistics, the tests suitable to be used were One-sample-t-test, analysis of variance, Scheffe-test and t-Hetling.

The results of the research indicated that the amount of using all the five components is more in the Azad University than the Tehran Shahid Beheshti one; thus, this university provides more learning than the Tehran Shahid Beheshti University. This is because of Shahid Beheshti University's being more bureaucratic. Actually, it is bureaucracy that considers plans, regulations, and frameworks as important and prefers works to be performed with the existing method (i.e. letting no change take place in the performance of works), hence highly reducing the power of learning in organizations. The existence of less flexible hierarchy in the aforementioned state university causes people's energy, creativity and ideas to be weakened, which is probably the reason for the annihilation of the merits grown in learning process.

Moreover, one of other main obstacles for the creation of learning organization in this university can be the weak connection between the employees with different levels of occupational status, which is caused by the existence of filters including intentional and unintentional biases, postponements and delays causing people to evade cooperation and team work. However, the reasons for the relative priority of learning status in the Azad University can be the clearer and more rapid relations, lack of organizational centralization and relative flexibility in the performance of processes and deeds in this university. Moreover, considering the results obtained, it can be asserted that gender cannot by itself be one of the factors effective on the application of learning organization components in neither of foregoing universities. The reason for this result and the results of the previous studies can be the cultural commonalities and similarity of working fields in both male and female genders of both the universities. However, comparing the means of learning organization components in the two universities of Azad and State concerning occupational status shows that this factor can be effective on the amount of using learning organization components in the Azad university, but in Tehran Shahid Beheshti university the results indicate that managers and members of scientific group use the components 'personal masters' and 'mental patterns' more than other employees. This is probably because managers and members of scientific group, due to their particular status and position, are more sensitive and pay more attention to the promotion of their individual abilities, thus having tendency to change their mental patterns.

Considering the results of the research, it is necessary that universities hold suitable training and on-duty courses for employees and provide study opportunities for managers and members of scientific group so that they can promote their skills and abilities and understand the necessity of knowledge about each organizational post. This way learning culture will be created in universities and perpetual learning will be considered part of the responsibilities and duties of people in organization. Moreover, these courses will provide colleagues with the grounds to express their beliefs and exchange ideas and lead managers to benefit from the ideas of professors and employees in their decision
makings. It seems that university's vision and outlook can be allocated by understanding the vision and mission of university and if possible by the participation and effective relationship of managers, members of scientific group and employees inside the university with each other and through cooperation with other universities and also by conversation, discussion and drawing public attention. Eventually, people inside universities should be motivated to see the problems and their solutions as processes happening in the framework with regular relations, to draw a systematic and comprehensive model for explaining the events, and to truly understand the relations between the needs and goals of different branches and the whole organization.

References


