Assessments Rate of Learning in Branches of Islamic Azad University in Mazandaran Province[1]

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ABSTRACT

The present study examines the conditions of Islamic Azad University in Mazandaran Province based on elements of the learning organization. The research method employed in the study is descriptive-survey. The population under study consists of a total of 1746 faculty members of different branches of Islamic Azad University in Mazandaran Province who were working in 2012. The sample of faculty members including 320 persons was obtained by the use of Kerjesi and Morgan Table (Hassanzadeh, 2008) through stratified random sampling method based on the size of university branches. The instrument used to collect data was a 20 item researcher-made questionnaire. Experts' opinions were used to determine the validity of the questionnaire and Cronbach's alpha coefficient was used to calculate the reliability of the questionnaire whose value amounted to 0.84. Besides, to analyze the obtained data, indicators of descriptive statistics (frequency tables, percentages, diagrams, and the calculation of means) and inferential statistics (one sample t-test, analysis of variance and Tukey's test) were estimated by SPSS Software. The results of the study indicate that performance various branches of the Islamic Azad University in Mazandaran Province was higher than average and there is a significant difference between learning levels of branches of the Islamic Azad University in Mazandaran Province based on their size and the larger units had a better learning outcome than smaller units.

KEYWORDS: Learning organization, Empowering, Shared vision, Mental models, Team learning, System thinking.

INTRODUCTION

Learning organization is a relatively new concept and has received a lot of attention as a tool to learn, to improve the performance of organizations, and to adapt quickly to environmental changes (Rahman Seresht, 2007). Earlier studies that examined seriously the concept of learning organization were conducted by Peter Senge in 1990 in his "Fifth commandment, art and practice in learning organizations" (Aksuat and Izmir, 2005). However, as stated by Senge, the concept of learning organization has been developed based on ideas and beliefs related to the past decade. Senge considers the learning organization as an organization that continually expands its capacity for creativity in the future. For such an organization, the survival is not an important matter. In such an organization, learning for survival or what is called adaptive learning is mixed with generative learning which increase the capacity of the organization to be creative. In such an organization it is not possible to evade learning because learning is embedded somehow in the structure of organizations' life (Senge, 1990). Learning organization is one where people continually promote their capacity to achieve expected results. Accordingly, new patterns of thinking and development of collective ideas are improved rapidly. A learning organization is able to recognize environmental needs, satisfies them with its coordinating tools, makes itself a learning environment, and put the learning process in action (Brown, 1991). According to Senge, complex organizations in the today's world should adopt a learning approach in order to adapt themselves to constant changes to succeed in achieving their goals. He believes that the only competitive advantage for organizations in the long run is to learn faster than other competitors and if the organization is learning faster it will be more effective and more efficient (Senge, 1999). Given the increasing complexity and dynamicity of environmental factors, traditional organizations are no longer able to adapt to changes and, as a result, they are being destroyed. Therefore, the issue of learning organization as a tool for survival and harmony has been cared for by many organizations.

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One of responses of university throughout the world to environmental variability is to move towards the establishment of universities as learning organizations. Universities are institutions that have special opportunities to match themselves with ideas and activities of a learning organization and to do so they have major responsibilities and obligations (Hadkinson, 2006). Such a university is more likely to be different from today's universities. Some research done in this field is as follows:

A study was conducted by Borbor (2006) to compare public and private (non-profit) schools in terms of enjoying characteristics of a learning organization based on Senge's quintuplet principles. The results of the study indicated that there is no significant difference between public and private schools in terms of possessing characteristics of systemic thinking, personal mastery, mental models, and shared vision. The only difference was that private schools employed group learning more frequently than public schools (Borbor, 2006)).

Larrine and Graw Ford (2004) conducted a study at the University of Virginia entitled "Management of schools principals". The results of the study showed that each of school principals believed in the five principles of learning organization such as personal capacity, systemic thinking, group learning, shared vision, and mental models to develop and maintain their schools. They also suggested that to move towards a learning organization, the establishment of a leadership team and teacher-based changes are necessary and in order to make changes, creativity and a shared vision seem essential.

Dimerchely (2002) in a study named "Examining Shahid Beheshti University based on the principles of learning organization (Peter Senge) from the faculty members' view" came to the conclusion that the individual capabilities and mental models are assessed in a higher level than other principles and the existing problems in the university are related systemic thinking, shared visions and group learning.

In another study it was found that 90% of traditional education does not lead to real learning in the workplace. In addition, if an organization possesses the characteristics of a learning organization it can gain valuable outcomes such as innovation, better alignment with the environment, and sustainable competitive advantage. Nowadays, education and learning are the prerequisite for any organization to make progress. Beside, since the higher education system is seeking to improve the learning process in universities it is appropriate to benefit from the structure of learning organization in universities. Therefore, the present study to investigate the learning rate in different branches of Islamic Azad University of Mazandaran Province, has examined the current status of these branches based on the Senge's Model to answer the following questions:

1. How is the performance of different branches of Islamic Azad University in developing individual capabilities?
2. How is the performance of different branches of Islamic Azad University in developing mental models?
3. How is the performance of different branches of Islamic Azad University in developing a shared vision?
4. How is the performance of different branches of Islamic Azad University in developing group learning?
5. How is the performance of different branches of Islamic Azad University in developing systemic thinking?
6. Is there a difference between the learning rates in different branches of Islamic Azad University?

METHODOLOGY

The population under study consisted of all faculty members (1746 persons) of different branches of Islamic Azad University of Mazanadran Province who were working in these branches in 2012. The sample including 320 persons was obtained by the use of Kerjesi and Morgan Table (through stratified random sampling method based on the size of university branches). The sample characteristics are presented in Table 1:

Table 1: Description of the research sample

Province	Mazandaran												
Unit size	Comprehensive	Very large				Large			Medium		Small		
Academic units	Chalus	Ghaem Shahr	Tonekabon	Sari	Babol	Savadkooh	Amol	Noor	joybar	Neka	Ramsar	Noshahr	Behshahr
Faculty member	303	320	181	178	278	70	125	83	44	38	34	54	36
Frequency	59	173				50			15		23		
Percent	18.4	54.1				15.6			4.7		7.2		

Instrumentation

The instrument used in this study to collect the needed data was a researcher-made closed-response questionnaire that was developed based on components of a learning organization (development of individual capabilities, mental models, group learning, shared vision, and systemic thinking). The questionnaire contained 30

items based on a 5-score Likert scale in which highest score (5) indicated the respondents agreed more frequently to a given item while the lowest score (1) indicated the participants did not agree with the item under question. To determine the validity of the questionnaires, it was distributed to ten experts in the field and their opinions were obtained and applied to eliminate possible problems with the questionnaire. The reliability of the questionnaire was determined through a pilot study and was calculated as 0.84. To analyze the data and generalize of the results of data analysis, one sample t test, analysis of variance (ANOVA), and Tukey test were employed through SPSS Software.

Results of the study

In order to determine the rate of learning in different branches of Islamic Azad University in Mazandaran Province and to answer the first five research questions, scores obtained on five subsystems with an expected mean score of 3 (theoretical mean score) were compared through the one sample t-test as shown in the tables 2 to 6. To answer the sixth research question, ANOVA and Tukey test were used as presented in tables 7 and 8.

Question 1:

As shown in Table 2 and indicated by the significance level (P = 0.00), there is a significant difference between the mean score obtained for the subsystem of developing individual capabilities (3.70) and the theoretical mean score (3.00). A comparison of these two mean scores suggests that the mean score obtained for the subsystem of developing individual capabilities (3.70) is higher than the expected mean score of 3.00. As a result, it can be said with 95% confidence that the subsystem of developing individual capabilities for branches of Islamic Azad University in Mazandaran Province is assessed higher than the average level.

Table 2: Results of one sample t-test

Subsystem / Indicators	Sample mean	The expected mean	SD	t	df	Critical t	Sig.
Development of individual capabilities	3.7	3	.61	20.459	319	1.961	0.000

Question 2:

As shown in Table 3 and indicated by the significance level (P = 0.00), there is a significant difference between the subsystem of mental models and the theoretical mean score (3.00). A comparison of these two mean scores suggests that the mean score obtained for the subsystem of mental models (3.59) is higher than the expected mean score of 3.00. As a result, it can be said with 95% confidence that the subsystem of mental models for branches of Islamic Azad University in Mazandaran Province is assessed higher than the average level.

Table 3: Results of one sample t-test

Subsystem / Indicators	Sample mean	The expected mean	SD	t	df	Critical t	Sig.
Mental models	3.59	3	0.73	14.515	319	1.96	0.000

Question 3:

As shown in Table 4 and indicated by the significance level (P = 0.00), there is a significant difference between the subsystem of the shared vision and the theoretical mean score (3.00). A comparison of these two mean scores suggests that the mean score obtained for the subsystem of the shared vision (3.59) is higher than the expected mean score of 3.00. As a result, it can be said with 95% confidence that the subsystem of the shared vision for branches of Islamic Azad University in Mazandaran Province is assessed higher than the average level.

Table 4: Results of one sample t-test

Subsystem / Indicators	Sample mean	The expected mean	SD	t	df	Critical t	Sig.
Shared vision	3.59	3	0.73	14.515	319	1.96	0.00

Question 4:

As seen in Table 5 and suggested by the significance level (P = 0.00), there is a significant difference between the subsystem of group learning and the theoretical mean score (3.00). A comparison of these two mean scores suggests that the mean score obtained for the subsystem of group learning (3.59) is higher than the expected mean score of 3.00. As a result, it can be said with 95% confidence that the subsystem of group learning for branches of Islamic Azad University in Mazandaran Province is assessed higher than the average level.

Table 5: Results of one sample t-test

Subsystem / Indicators	Sample mean	The expected mean	SD	t	df	Critical t	Sig.
Team learning	3.62	3	0.69	16.192	319	1.96	0.000

Question 5:

As seen in Table 6 and suggested by the significance level (P = 0.00), there is a significant difference between the subsystem of systemic thinking and the theoretical mean score (3.00). A comparison of these two mean scores suggests that the mean score obtained for the subsystem of systemic thinking (3.59) is higher than the expected mean score of 3.00. As a result, it can be said with 95% confidence that the subsystem of systemic thinking for branches of Islamic Azad University in Mazandaran Province is assessed higher than the average level.

Table 6: Results of one sample t-test

Subsystem / Indicators	Sample mean	The expected mean	SD	t	df	Critical t	Sig.
Systems Thinking	3.71	3	0.68	18.784	319	1.96	0.000

Table 7: Results of ANOVA to compare the rate of learning for branches of Islamic Azad University

Source of variation	Sum of squares	d.f	Mean squares F	Mean squares F	P value (Sig.)
Between-group	3499.988	4	874.997	2.98	0.02
Intraclass	92607.999	315	293.994		
total	96107.987	319	-		

Question 6:

In order to assess the rate of learning for branches of Islamic Azad University ANOVA test was used. the results of data analysis, summarized in Table 7, indicate that since the probability value (Sig. = 0.020) at the confidence level of 95% is smaller than the significance level (α = 0.05), it can be said with 95% confidence that the rate of learning is not the same in different branches of Islamic Azad University. Therefore, using the Tukey test, branches of Islamic Azad University that differ in terms of rate of learning are classified as follows:

Table 8: Results of Tukey test to identify significance of the rate of learning for branches of   Islamic Azad University

University branches	Very large	Large	Average	Small	Comprehensive
Very large	-				
Large	P >0.05	-			
Average	P >0.05	P >0.05	-		
Small	P >0.05*	P >0.05	P >0.05	-	
Comprehensive	P >0.05	P >0.05	P >0.05	P >0.05	-

*: the level of 0/05 is significant.

As shown in Table 8, there is a significant difference between the mean score of the very large branches of Islamic Azad University and the means score of small branches in terms of their rate of learning (P = 0.48). Accordingly, it can be said that the very large branches (with the mean score of 111.51) have a better rate of learning than smaller branches (with the mean score of101).

DISCUSSION

The results of the study suggested that the current state of all subsystems of learning organization (Senge's Model) in university branches under study have been above average so the current state was assessed above the average level which is consistent with the results noted by Atafar and Bahrami (2009), Borbor (2006), Larrine and Graw Ford (2004), and Dimerchely (2002). Organizations can learn if they possess learning individuals and people learn when they feel they need to learn. In other words people start learning if they understand the gap between the present and desired situation. As a result it can be claimed that if people as the main elements of a learning organization possess a high level of personal ability they are able to perceive the changes and adapt themselves to changes to improve themselves and their organizations. In such circumstances people are able to take the initiative and they will take more responsibility at their work. The results of a study by Davis (2005) also demonstrated that learning organizations take care of their stakeholders and they put into action what they learn about their customers, markets, and competitors.

Many of the best ideas that contain attitudes and innovative factors in the organization never find an opportunity to be exposed due to their inherent conflicts with mental models. Leaders of learning organizations should possess the required skills in disclosing and benchmarking mental models since observable behaviors in the learning organization are developed based on mental models and when solving their problems they concentrate on three factors: reflection, question, and defense. Shafai (2001) considers employees' misconceptions about the managers' power and managers' wrong mental models of employees are the major obstacles to a learning organization. Kelly (2000) concluded that individual capability, mental models, and group learning have existed at an acceptable level in the college under study.

At the simplest level, a shared vision is the answer to the question where is the organization going and what do we want to create? Organizations are created with a shared vision based on which the learning difficulties are trivial compared to the significance of what the organization is going to achieve. Shared vision serves as a tool for making a shared meaning which reinforces people's real commitment. Shared vision is based on that fact that every organization has a destiny which is a profound goal which presents the reason behind the existence of an organization. This goal is never known, but people can try to make their vision clearer to this common ideal.

Individuals show an extraordinary capacity for taking action when they play team games. Each team revolutionizes collective thinking through techniques such as skilled dialogues and negotiations and instructs their members to mobilize their energy to achieve their goals and fulfill a vision and ability beyond members' entire capacity. Besides, the alignment the work force in the same direction prevents the members from wasting their energy. In fact, the available energies are aligned which create a sense of unity and harmony in members. Danner et al., (2005) confirmed free communication between people at universities as well as approved the existence of collaboration between students, faculty members, and the staff. Shafai (2001) considers non-systemic, linear, and bottom-up thinking as a barrier to the learning organization.

Acknowledgments

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