



## **Investigating the consistency of managers and employees' thinking styles with their organizational tasks in Imam Khomeini Education and Research Institute, Ministry of Jihad-e-Agriculture**

**Hagh Reza Eivazi<sup>1</sup>, Mohammadreza Shirzadi<sup>2</sup>, Allahverdi Hosseinzadeh<sup>3</sup>**

<sup>1,2,3</sup>Department of Education, College of Education and Counselling, Roudehen Branch, Islamic Azad University, Roudehen, Iran

### **ABSTRACT**

This study was conducted with the aim to investigate the relationship between managers and employees' thinking styles and their organizational tasks in Imam Khomeini Education and Research Institute. The statistical population was consisted of 144 staff out of 240 according to Morgan table and selected by random sampling method. The research tool was 24-item Stenberg-Wagner's Inventory utilized to measure three thinking styles, namely, the legislative, executive, and judicial styles with seven-point Likert scale. In this regard, the normality of data distribution was investigated using the central and distributive indices as well as K-S (Kolmogorov-Smirnov) Test, ( $\alpha=0.135$ ) and then the parametric tests were utilized for target tests, and the data analyzed by SPSS software. The executive style was the dominant style in all classes of organizational tasks except for the teachers' styles which were executive and legislative. Thus the executive and judicial styles were the dominant styles in the Institute. Mean while there was no difference between managerial Job and clerk job in styles of thinking. Furthermore, there was no difference between the managers and employees' thinking styles, but generally the men were more judicial than women. Different educational levels were different in terms of legislative thinking style those with master's degrees were more legislative than other levels. On the other hand, none of the thinking styles were prior in different age of years, but the research results indicated the direct relationship between the executive and judicial thinking styles, the legislative and executive styles as well as the legislative and judicial thinking styles. In general, the research results indicated that the executive and judicial thinking styles were the dominant styles, respectively, and this issue was achieved in studies by Dr. Sternberg.

**Keywords:** employees, organizational tasks, managers, thinking styles

### **INTRODUCTION**

Thinking styles are the non-investigated issues which have not been more taken into account in the world and also Iran Scientific studies have proven that the thinking styles are the concepts for individuals' life, career, and current affairs (including learning, work, job education, teaching, etc.), and if the individual's current affairs or activities or his thinking style are consistent, that person is in a right path and has been able to implement his abilities because has gained a proper understanding of himself during the lifetime and his abilities are involved in a way that is consistent with his preferred mind and thinking. Thus, since like other cognitive and subjective processes, performing the current affairs (including the management and education, learning, organizational tasks, and roles in the organizations and other social systems, etc) is affected by the individual attitude and thinking, it seems that paying attention to thinking styles which raise the individual's preferred style, has a significant contribution to the selection of right and qualified person for organizational roles and tasks and even his own life. The style is not synonymous with ability, but it is also the way of applying the potential abilities. We do not have a specific style, but there are a number of styles and the people may have similar abilities, but different thinking styles; however, the society does not always judge the same on people despite their same abilities, and those with thinking styles consistent with the expectations of society in specific situations are judged as those with higher levels of ability in spite of the fact that what is considered is not the ability, but adaption of their thinking styles with their tasks. The people's preference for what they think is as important as how far they properly think.

Fidler suggests that the leadership style should be consistent with the situational requirements in terms of performance. He has considered the influence as the basic element of leadership. In other words, the leadership is a relationship in which a person tries to influence others to do the shared task. The

important point is that the effective leadership is subject to the right person at the appropriate time and place [4].

Considering that to what extent the individuals' work environment is consistent or inconsistent with their thinking styles, they may be stronger or weaker at different stages of their careers. Despite numerous and extensive definitions of ability, the thinking styles are as important as the ability or perhaps more than it for several reasons since the social and emotional constructs and intelligence operations and in other words various aspects of intelligence expand our imagination of what people are able to do, but the structures of thinking styles make our imagination close to what people prefer to do. When profiles of thinking styles has an appropriate consistence with environment, it will be developed, but when the consistency is not suitable and sufficient, the person will suffered from damages; depending on to what extent and how the profiles of thinking styles are consistent with expectations of environment and how the environment is evaluated by person, its better or worse performance is determined during his career [12].

The "style" term is an English word. This foreign term is translated into Persian literary as the style, technique, writing style, taste, current mode, item and tendency [2]. In Webster dictionary, the "style" term means the distinctive behavior and way of action. In terms of technical meaning, the stylistics is a method in which the person processes the information and it is apparently first developed by psychologists who studied in the field of sensory- mobility abilities [13].

The "thinking" term can be defined as pondering, think, imagining, supposing and taking into account. Thus, the "thinking style" term literally means the way and model of thinking and so on. Despite the fact that there are differences among the theorists in the field of thinking style according to the terminology, all of them agree that people have constant and distinct ways, which is independent of intelligence, in encoding, storing and processing the information in mind [1]. Meanwhile, the thinking styles concept is at the micro level in terms of biology, mind, character, etc, and has the psychological roots (Skidmore, 1979). On the other hand, it has the socio-cultural aspect and has imposed itself on the sociology at the macro level along with the development of industry and technology and human changes in current ever changing world [7].

A style is a way of thinking. The "style" term is not synonymous with ability, but a way to apply the individual ability. It is difficult to distinguish between style and ability. The ability refers to how good a person can do something, but the style refers to how the person likes to do the work. [8]. Mental self-government theory is based on this principle that the type and form of government in the world is not accidental, but it is the external reflection of people's thoughts. They provide solutions to organize the thoughts. Therefore, all governments are the mirrors of our minds.

There are balances between organizing the individual and community. The more the society needs to be managed, the more we should govern ourselves. Like the government, we should decide based on the priorities, allocate resources, and be responsive to the changing world. As there are obstacles to the whole way of changing the society, there are also barriers to our internal changes [10].

The culture is the first factor for development of thinking and learning styles. The research on the relationship between thinking and learning styles has a long background [14]. Since the leadership style is affected by the individual attitude and thinking like other cognitive and intellectual styles, it seems that considering the thinking styles which raise the individual preferred way helpful for selecting the right person. The style is not synonymous with ability, but it is the way of utilizing the potential abilities. We have no particular style, but a number of styles. People may have similar abilities, but different thinking styles; however, the society do not always judge equally on them with respect to their same abilities, but the people with thinking styles consistent with the expectations of society in specific situations are judge as those with high levels of ability, despite the fact that what is raised is not ability, but the adaption of their thinking styles to tasks. How people prefer to think can be important as much as how good they think (Sternberg, 2001).

It is essential to identify most of the students' thinking styles and understanding their relationship with factors such as educational attainment, age, gender, etc, from social psychology perspective (not merely a psychological approach which has been common so far). Robert. J. Sternberg called the individuals' different ways in processing information as the "thinking styles".

According to the basic assumption of Sternberg's mental self-government theory, different governments around the world have not occurred accidentally, but they are external reflections of events which occur in individuals' minds. As human beings styles manage and control others (with different types of government), they are able to manage their own behavior; and people need to control and manage themselves as well as the cities, states or countries [3].

One of the fundamental issues of education in this era is to educate the students in a way that their thinking styles are consistent with the complex and very variable conditions of this world and challenging situations of future [6].

Some of the experts argue that we can overcome the problems and capabilities can be maximally utilized by proper application of thinking styles in social life or coordinating them with skills [9].

Thinking Styles are the key concepts in Sternberg's mental self-government theory. Sternberg argues that there is correspondence between the social and individual organization. According to his viewpoint, the people need to control and manage themselves like the cities, states and countries. Like governments, the human beings have different aspects such as the performance, form, level, scope or extent of attitudes [12].

In dealing with issues, they may have conservative or liberal attitudes, the legislative, judicial or executive performance, and the global or local view. The concept of thinking styles is a newer concept than the cognitive and learning styles especially the mental self-government theory by Sternberg presents a full of conceptual features.

Sternberg [11], argue that investigating and understanding the "thinking styles" are very useful and essential for predicting the academic success in educational opportunities and for career choices.

Various studies have indicated that thinking styles are associated with the processes such as the creativity, problem solving, decision making, academic achievement, etc., and the factors such as the culture, gender, age, profession, work experience, parenting styles, etc. affect individuals' thinking styles [5]. According to the prominent assessment, thinking styles are put in the group of psychological studies, but in fact it is a subject in the field of the science, psychology and sociology [15].

## **MATERIALS AND METHODS**

Research hypotheses

1. What are the managers and all staff thinking styles in Imam Khomeini Education and Research Institute?
2. Is there a difference between thinking styles of different organizational tasks?
3. Is there a difference between managers and other staff in terms of thinking style in Imam Khomeini Education and Research Institute?
4. Is there a correlation among different thinking styles in Imam Khomeini Education and Research Institute?

Research Method:

According to the classification above, this research is applied in terms of objective and among the field studies according to the degree of controlling the variables and is also a descriptive and non-experimental study in terms of data collection method. This research is applied because seeks to develop the practical knowledge about the managerial and psychological issues. It has the field type according to the degree of controlling data because it has studied all target variables in normal situation. This study utilizes the comparative and correlative methods to achieve the research objectives.

Statistical population

The statistical population in this study included all workers in Imam Khomeini Education and Research Institute located in Mohammadshahr, Karaj. According to the provided documents and statistics by the Department of Planning and Support (Administrative Affairs of Staffing Unit), the center above had a total of 240 staff from which 42 ones were expert assistants, 56 experts, 40 teachers, and 26 faculty members (totally 66 individuals), 11 managers, 3 deputies, 2 responsible experts, 6 group heads, and 1 head officer of supreme leader's office (totally 22 managers and heads) and 54 employees.

Sample size and sampling method:

All employees in Imam Khomeini Education and Research Institute (approved posts in center) were 240 ones from which 144 staff were selected by Kerjcie and Morgan Table and participated in research. The staff distribution table in various units was prepared and the random sampling method was utilized on this basis.

Research Tools:

The main tool in this study is the collection and investigation of Inventory which is a kind of questionnaire selected in the form of factors within the theoretical framework and research questions and in the main sections. Thus, this Inventory has the following features: Thinking Styles Inventory: Sternberg-Wagner thinking styles Inventory (1991), which is translated in Persian by Dr. Etemad-Ahari and Dr. Khosravi in 2001, is applied to assess the employees and managers' thinking styles. The questions in this inventory measure 3 thinking styles in the form of 24 questions and each of 8 questions evaluates one of thinking styles and the response to each question is scored at a seven-point Likert scale from totally disagree (1) to totally agree (7).

In thinking styles inventory, presented in Appendix at the end of this study, the questions 1 to 8 are related to the legislative style, questions 9 to 16 represent the executive style, and 17 to 24 indicate the judicial one.

## RESULTS

**First question:** What are the managers and all staff thinking styles in Imam Khomeini Education and Research Institute?

- Employees' thinking styles

Table 1- One-sample t test for comparing the mean of different thinking styles and assumed mean in employees

Thinking styles	No.	Mean	Standard deviation	Degrees of freedom	t	Significance level
Legislative	32	5.0000	1.19137	31	0.000	1.000
Executive	32	5.5313	1.10671	31	2.715	0.011
Judicial	32	5.3438	1.00352	31	1.938	0.062

In the group of employees, the statistical population consisted of 32 employees; in the executive style, the mean equal to 5.5313 and the standard deviation of 1.10671 and also the significance level of 0.011 indicated that the employees' thinking styles in Imam Khomeini Education and Research Institute were executive, and then the judicial and legislative styles were put in the next priorities. But finally the significance level of executive style was dominant in this group.

- Expert assistants' thinking styles

Table 2- One-sample t test for comparing the mean of different thinking styles and assumed mean in expert assistants

Thinking styles	No.	Mean	Standard deviation	Degrees of freedom	t	Significance level
Legislative	19	4.8947	1.19697	18	0.383	0.706
Executive	19	5.7368	0.56195	18	5.715	0.000
Judicial	19	5.1579	1.21395	18	0.567	0.578

In the group of expert assistants, the statistical population consisted of 144 expert assistants; the executive style with a mean of 5.7368 was put in the first priority at the significance level of 0.000 indicating that it was the expert assistants' dominant thinking style and then the judicial and legislative styles were put in the next priorities.

- Experts' thinking styles

Table 3- One-sample t test for comparing the mean of different thinking styles and assumed mean in experts

Thinking styles	No.	Mean	Standard deviation	Degrees of freedom	t	Significance level
Legislative	37	4.9730	1.06684	36	0.154	0.878
Executive	37	6.1081	0.80911	36	0.331	0.000
Judicial	37	5.4054	0.89627	36	0.751	0.009

The number of experts was 144; in the executive thinking style, the mean of group was 6.1081 and the standard deviation equal to 0.80911 and thus the executive style was put in the first priority with significance level of 0.000 and then the judicial and legislative styles were put in the next priorities, but finally the executive style was the dominant style in the group of experts.

- Managers' thinking styles

Table 4- One-sample t test for comparing the mean of different thinking styles and assumed mean in managers

Thinking styles	No.	Mean	Standard deviation	Degrees of freedom	t	Significance level
Legislative	23	5.0870	0.94931	22	0.439	0.665
Executive	23	5.5652	0.84348	22	3.214	0.004
Judicial	23	5.2609	1.28691	22	0.972	0.342

The number of managers was 22; in the executive thinking style, the mean of group was 5.5652 and the standard deviation equal to 0.84348 and thus the executive style was put in the first priority with significance level of 0.004 and then the judicial and legislative styles were put in the next priorities.

Teachers' thinking styles

Table 5- One-sample t test for comparing the mean of different thinking styles and assumed mean in teachers

Thinking styles	No.	Mean	Standard deviation	Degrees of freedom	t	Significance level
Legislative	33	5.4545	1.002284	32	2.604	0.014
Executive	33	5.7576	1.06155	32	4.100	0.000
Judicial	33	5.2424	1.19975	32	1.161	0.254

The number of teachers was 33; in the executive thinking style, the mean of group was 5.7576 and the standard deviation equal to 1.06155 and thus the executive style was put in the first priority with significance level of 0.000 and then the legislative style with the mean of 5.4545 and standard deviation of 1.002284 and significance level of 0.014 is put in the next priority and the judicial style has the less importance; thus the executive style is the dominant style and then the legislative thinking style.

**Second question:** Is there a difference between thinking styles of different organizational tasks?

Table 6- Comparison of different thinking styles and organizational tasks through one-way analysis of variance (ANOVA)

Thinking styles	Organizational post	Mean	Standard deviation	F	Significance level
Legislative	Employees	5.0000	1.19137	1.253	0.292
	Expert Assistants	4.8947	1.19697		
	Experts	4.9730	1.06684		
	Managers	5.0870	0.94931		
	Teachers	5.4545	1.00284		
Executive	Employees	5.5313	1.10671	2.057	0.090
	Expert Assistants	5.7368	0.56195		
	Experts	6.1081	0.80911		
	Managers	5.5652	0.84348		
	Teachers	5.7576	1.06155		
Judicial	Employees	5.3438	1.00352	0.205	0.935
	Expert Assistants	5.1579	1.21395		
	Experts	5.4054	0.89627		
	Managers	5.2609	1.28691		
	Teachers	5.2424	1.19975		

There is no significant difference among staff with different tasks (employees, expert assistant, etc.) in terms of legislative thinking style,  $t = 1.253$  and  $sig = 0.292$  confirm this issue. For executive and judicial styled  $t = 2.057$  and  $sig = 0.090$ , and  $t = 0.205$  and  $sig = 0.935$ , respectively, thus all employees are the same in this regard and the community cannot be divided into separate groups in terms of legislative, administrative and judicial thinking styles and the organizational tasks.

Probably, it is because "Despite the fact that the people have certain styles and make the use of them, they are not within a particular style, but are able to coordinate different styles with various positions and tasks. Utilizing the profile of styles is itself neither good nor bad, but their consistence with a particular situation or task is important (Sternberg, 2009)".

**Third question:** Is there a difference between managers and other staff in terms of thinking style in Imam Khomeini Education and Research Institute?

t tests is applied to investigate the difference between the variables of this hypothesis.

Table 7- Investigation of difference between managers and other employees in terms of thinking styles through t test with independent samples

Thinking Style	Post Status	No.	Mean	t statistics	Significance level
Legislative	Managers	23	37.3043	0.082	0.935
	Employees	121	37.4545		
Executive	Managers	23	42.3478	0.252	0.801
	Employees	121	42.7686		
Judicial	Managers	23	39.3043	0.009	0.993
	Employees	121	39.3223		

From the total of 144 staff, there were 23 managers and 121 employees (employees expert assistants, experts, teachers) who were studied in terms of legislative, executive and judicial thinking styles.

As shown, there is no significant difference between employees and managers and the thinking styles have slow and normal distribution in both the ranges of thinking styles.

However, it is generally concluded that the employees are at higher levels in legislative, judicial and executive styles. But, in general there is no significant difference between the managers and all employees; in other words, the null hypothesis is true.

**Question Four:** Is there a correlation among different thinking styles in Imam Khomeini Education and Research Institute?

Table 8- Investigation of correlation among different thinking styles

Thinking Styles	Statistics	Legislative	Executive	Judicial
Legislative	Correlation coefficient	1	0.382	0.231
	Significance level		0.000	0.005
Executive	Correlation coefficient	0.382	1	0.513
	Significance level	0.000		0.000
Judicial	Correlation coefficient	0.231	0.513	1
	Significance level	0.005	0.000	

Pearson correlation coefficient was utilized to investigate this issue. The results of this test indicated a relatively strong correlation between the executive and thinking styles with correlation coefficient of 0.513 and significance level of 0.000; or in other words, the enhanced judicial thinking styles was associated with the increased executive thinking style and vice versa. Furthermore, considering the correlation coefficient of 0.382 and significance level of 0.000, a relatively strong correlation was confirmed between legislative and executive thinking styles. In addition to these two relationships, the correlation coefficient of 0.231 at the significance level of 0.005 indicated a direct correlation between legislative and judicial thinking styles.

## DISCUSSION AND CONCLUSION

The dominant thinking style for all staff including the managers and others should be identified in the first hypothesis. According to the conducted studies by t-test, the employees, expert assistants, experts and managers had executive thinking styles and the teachers had the executive and legislative thinking styles. According to the second hypothesis, there was no significant difference among the staff with different tasks (staff, expert assistant, etc.) in terms of legislative thinking style; and  $t=1.253$  and  $sig=0.292$  confirmed this finding. Furthermore, for executive and legislative thinking styles,  $t= 2.057$ ,  $sig= 0.090$ , and  $t= 0.205$  and  $sig= 0.935$ , respectively, thus all employees were not similar in this regard and the community could not be divided to separate groups in terms of legislative, executive and judicial thinking styles and the organizational tasks. Therefore, the null hypothesis was confirmed. For the third hypothesis, from a total of 144 staff, there were 23 managers and 121 employees (staff, expert assistants, experts, and teachers) studies in terms of legislative, executive and judicial thinking styles. The results indicate that there is no significant difference between the managers and staff and thinking styles are distributed with a slow and normal distribution. Pearson correlation coefficient is applied in the fourth hypothesis to find whether there is a correlation between different thinking styles. The results of this test indicate a relatively strong correlation between judicial and executive thinking styles with correlation coefficient of 0.513 and significance level of 0.000; in other words, the enhanced judicial thinking style will lead to the increased indices of executive thinking style and vice versa. Considering the correlation coefficient of 0.382 and the significance level of 0.000, a relatively strong correlation is confirmed between legislative and executive thinking styles. In addition to mentioned two relationships, the correlation coefficient of 0.231 at the significance level of 0.005 indicates a direct relationship between the legislative and judicial thinking styles. Therefore, the null hypothesis is rejected and the first one confirmed.

Research limitations and problems:

- 1- The employees' fear of responding to the questionnaire specifying the number of organizational post.
- 2- The employees' lack of understanding of thinking styles issue and questions due to the low literacy and educational levels.
- 3- Some individuals considered their own viewpoints beyond the validity and reliability of questionnaire and considered it without the validity and reliability. Unfortunately, these people were self-educated in management field.

- 4- Since Imam Khomeini Education and Research Institute was located in Mohammadshahr of Karaj, this distance made problems for researcher's continuous interaction and thus he should spent more time.
- 5- Unfortunately the administrative affairs were very limited and the center head himself should recommended gaining the information.

Suggestions based on the research results:

- 1- With regard to the relationship between thinking styles and organizational activities including the organizational tasks, the research findings and similar results can be helpful in educational and vocational counseling at a more macro level of life.
- 2- This issue as the assessment of individuals' thinking styles at different levels of organization (managers, employees, men and women at all ages) can be the proper cornerstones of in-service training.
- 3- Teaching the thinking styles for all people in all current systems and subsystems (including the organizational and social ones) can make the expectation, judgment and actuation appropriate for those present in that system (especially "Imam Khomeini Education and Research Institute").
- 4- Holding the thinking styles workshops in this center and similar ones can be useful and basis for culture-making and organizational development.

## REFERENCES

1. Atkinson, S. (1998). Cognitive styles in context of design and technology. Project work: Barbuda, Singh; Job analysis for a changing workplace, USA: Human Resource Management Review, 2008
2. Aryanpour, Abbas, and Aryanpour, Manouchehr (1988). "English to Farsi Intensive Dictionary, Single volume", twelfth edition, Amirkabir Publication Center, Tehran.
3. Castells, Manuel (2001). "The Information Age: economy, society and culture and the Power of identity", translated by Hassan Chavoshian, Vol. 2, second edition, Tehran: Tarhe No publications.
4. Emamipour, Souzan (2001). Investigating the development of thinking styles in school and university students and their relationship with creativity and educational achievement. Unpublished doctoral dissertation. Islamic Azad University, Tehran Science and Research Branch.
5. Emamipour, Souzan, and Seif, Ali-Akbar (2003), Investigating the development of thinking styles in school and university students and their relationship with creativity and educational achievement, Quarterly Journal of Educational Innovations, No. 3, Second Year, Spring 2003, pp. 35-56.
6. Ghourchian, Nadergholi, and Fazlikhani, Manouchehr (1999). "Teaching-learning Theories". Second edition, Tehran: Tarbiat publications.
7. Pirhosseinlou, Ali (2004). "School in Industrial System", News, research and education Quarterly Journal for research journal of Education research Institute.
8. Research methods in management, Uma Skaran, Translator: Dr. Mohammad Saebi, Dr. Mahmoud Shirazi, Publisher: Center for Public Management Training, 2001.
9. Sternberg, J., Robert (2002), Thinking styles, Translated by: Alaeddin Etemad-Ahari and Ali-Akbar Khosravi, second edition, Tehran: Dadar Publication and Research Center.
10. Sternberg, Robert. Cognitive Psychology. Translated by Dr. Kamal Kharrazi and Dr. Elaheh Hejazi. Tehran: Institute of Cognitive Sciences, Tehran, 2008.
11. Sternberg, R. J. (1994), Allowing for thinking styles. Educational Leadership ,vol. 24.
12. Sternberg, R. J. (1997), Thinking styles. New York: Cambridge University Press.
13. Sternberg, R. J. (1998), Mental self government: A theory of intellectual styles and their development. Human Development, 31, 197-224.
14. Sternberg, R. J & ,Grigorenko, E. L. (1997), Are cognitive still in styles ?American Psychologist, 52, (7), 700-712.
15. Tracey, Declan (2002). Time management (Successful time management: in a week), translated by Banafsheh Namazi, First Edition, Tehran, Quality and Management Publication.