

## **Investigation of Managers' Thinking Styles in University of Medical Sciences**

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### **Abstract**

This study aimed to evaluate thinking style of university administrators. This research is descriptive and correlational study with population of 52 male and female managers and 1300 employees were men and women of Zabol University of Medical Sciences that sample size was selected 300 employees by using stratified random Morgan and 52 managers. To measure thinking style, Sternberg's Thinking Styles Questionnaire – Wagner was used that its reliability was obtained 0.91 by using Cronbach's alpha coefficient. The data were analyzed by statistics such as mean, t-test and one-way analysis of variance. The results of study showed that managers' thinking styles from the highest to the lowest are: Judicial, introspective, detailed, overall, the legislator, out-thinking, liberal, conservative and executive. The results of the survey questions related to demographic variables showed that there is meaningful difference in male and female managers' introspective thinking style. In other thinking styles between male and female managers was not significant. According to education level of managers and holistic thinking style differences were observed only in connection with service managers, managers thought there was no significant difference in styles.

**Keywords:** thinking styles, administrators, University of Medical Sciences.

## Introduction

Thinking requires operation and different mental processes that include visualization, conceptualization, creativity, problem solving and language (Hoffman,2000). As a whole, the individual is in fact a scientist at all times trying to understand, understand, think, interpret, have control the world in order to adapt effectively to predict (Shamloo , 2003). Albert Ellis also states that the behavior of each individual to his belief system and way of interpretation depends on the situation, not the situation of its objective position (Azad, 2000). Style of thinking, as a feature of individual differences, has attracted the attention of researchers based on different perspectives many studies have been done in this area. Sternberg defined way that people process information that defines the style of thinking. Thinking styles preferences about how to use intelligence and talent are (Sternberg, 2003) and are an example and an example of the performance. The results of studies showed that the light of the most documented and most scientific approach to thinking, an approach that has been proposed by Sternberg. This approach is in line with the dimensions of 13 thinking self-mental functions in 5 classes, forms, levels and trends of the division. For a brief, in the function, the legislator thinking style tends to create, invent and design and do things in their own way. Person with executive thinking style tend to follow the commands, and what he said, doing and thinking person has the tendency to judge and evaluate people and things are judged. In the form, the person's mental management takes four forms: Unipolar, hierarchy, oligarchy and anarchy. A person who enjoys style monopole of tasks at any time, allowing him to fully focus solely on an assignment, while the hierarchical style prefers to distribute your attention between a prioritized task and an oligarchy style tends in the same range when the multi-task work, no priority is given. Finally, people with style anarchy enjoy more of the tasks that the what, where, when and how to do a task they have authority. In later levels, the overall level of self-management in mind and part is done. A holistic overview of issue focused on abstract ideas. In contrast, people with different learning styles of homework enjoy detailed to allow work on specific aspects of a subject and details of their objective to. In the following fields, self-management, including both internal and external is subjective. People with the inner light of the

obligations can enjoy them as independent conduct. In contrast with the exterior light duties prefer to give them the opportunity to interact with others. In the interest of self-management in mind, there are two trends: Liberal and conservative. Independent-minded people enjoy performing tasks that are just and ambiguity. While those with a conservative style, willing to abide by the rules and procedures in carrying out their duties (Zhang, 2001 as quoted by Shokri et al., 2006).

According to the thinking styles of people with jobs matched to their success is their job, therefore it is better to delegate tasks to people offered so that they comply with the thinking styles or if person's thinking accordingly adjusted their duties. Thinking styles helps us understand why some people are successful and some failed to help patients better understand why some are good and some are not working for person. People tend to act according to his intellectual style as they want of their potential use in accordance with the type of thinking so that different reactions.

Therefore, if someone is not successful as a management or organization under his/her leadership is not high health may be due to lack of coordinated thinking he is his/her job. And the style of his thought does not correspond to the individual duties. Therefore, knowledge of the thinking styles is critical because the highest levels of the organization to its lowest level for managers with the correct style of thinking, logical, effective and efficient tangible (Haghighatjoo, 2008). In fact, the investigation in this regard is important that managers thinking styles on the one hand they are the main components of the educational system of any society and can induce and transmitter in the learning environment are thinking style.

And the mental attitudes that govern the collection, management is influenced by the philosophy of mind (Hatefi, 2003). On the basis of this study, the thinking styles of managers in the University Of Medical Sciences Of Zabol City have been investigated.

## Method

This study was descriptive and correlational study sample of male and female managers and staff in Zabol University of Medical Sciences in the university work-up. The numbers of managers and employees 1,300 people are 52. Distribution of sample of managers and employees showed in the table 1.

Table 1. Distribution of population and sample

Group	Managers and employees					
	society			sample		
	woman	man	Total	woman	man	Total
Managers	12	40	52	12	40	52
Employee	537	763	1300	124	176	300
Total	577	776	1352	164	189	352

The sample size for employees using a stratified random Morgan 300 for the 52 managers was selected.

**Research Tools**

Thinking Styles Inventory (TSI): to measure thinking style, thinking style questionnaire Sternberg-Wagner (1991) has been used. Mohammadi from the end of a questionnaire on the subject of entrepreneurship investigate the relationship between thinking styles and personality traits of school principals is Birjand in 2010. According to research Mohammadi according to the multitude of questions and the lack of attention to the subjects of this questionnaire when answering the questions, the thinking style questionnaire was administered on 25 members of the population. Then, according to the results of statistical calculations using Cronbach's alpha coefficient and the supervision of specialists, questions the

reliability of the final questionnaire was adjusted down to remove. The final form of the questionnaire, thinking styles, learning styles 9 in the form of 36 questions that measured each one of the four thinking styles assessment question and answer each question on a scale of seven points, I do not agree at all (1) Ultra agree (7) is determined. In this study, the question of the forms of thinking styles, including the royal hierarchy, oligarchy and anarchists, because of its association with other variables, the researchers had not anticipated the questionnaire were excluded. Reliability coefficient reported by Shoukri et al (2006) for each of the thinking styles legislator, 0.78, 0.64 executive, judicial 0.69, holistic 0.75, detailed 0.59, 0.71 introspective, looking out 0.84, 0.82 open-minded and conservative is 0.81. Questions and Cronbach's alpha coefficients for each style of thinking Styles Questionnaire table 2.

Table 2. Inventory components of thinking and questions related to it

Style of thinking		Number of question	Reliability
Functions	Policy maker	1-2-3-4	0.84
	Executive	5-6-7-8	0.88
	Judicial	9-10-11-12	0.86
Levels	Holistic	13-14-15-16	0.74
	Detailed	17-18-19-20	0.88
Areas	Introspective	21-22-23-24	0.71
	Cross-sectional	25-26-27-28	0.87
Trends	Open-minded	29-30-31-32	0.70
	Conservative	33-34-35-36	0.72

**Research questions**

1. Is significant difference between styles of thinking of the University of Medical Sciences of Zabol city?
2. Is significant difference between thinking styles of managers with regard to gender?
3. Is significant difference between thinking styles of managers with regard to the level of education?

4. Is significant difference between thinking styles of managers according to experience?

**Findings**

5. 1. Is significant difference between styles of thinking of the University of Medical Sciences of Zabol city?

Table 3 showed Distribution of mean, median and standard deviation obtained from managers thinking styles.

Table 3. mean, median and standard deviation scores of managers thinking styles

Variable	Style of type 1				Style of type 2			Style of type 3	
	Policy maker	Judicial	total	Open minded	Executive	Conservative	Detailed	Introspective	Cross-sectional
mean	21.36	23.25	21.50	20.90	19.36	19.82	21.84	22.69	21.19
Middle	14	14	14	14	14	14	14	14	14
Standard deviation	17.4	3.69	4.12	3.97	4.70	4.25	4.49	3.56	4.74

As Table 3 indicates, the highest and lowest mean among managers thinking styles related to judicial thinking style (23.25) and executive thinking (19.36) and according to mean obtained , thinking managers from the highest to the lowest are: justice, introspective,

detailed, overall, the legislator, out-thinking, liberal, conservative and executive.

2- Is significant difference between thinking styles of managers with regard to gender?

To examine the differences between the styles of thought leaders according to their gender t-test results that in Table 4 is presented.

Table 4. Different styles of thinking with regard to sex

Variable	sex	number	mean	SD	df	t	Sig.
Legal	Female	12	21.04	5.03	51	0.60	0.06
	Man	40	21.72	3.03			
Judicial	Female	12	23.04	4.23	51	0.43	0.27
	Man	40	23.48	3.06			
Holistic	Female	12	20.85	4.52	51	1.18	0.65
	Man	40	22.20	3.62			
Free-thinking	Female	12	20.81	3.48	51	0.27	0.16
	Man	40	21.00	4.51			
Executive	Female	12	18.29	4.68	51	1.73	0.96
	Man	40	20.52	4.53			
Conservative	Female	12	19	4.42	51	1.48	0.58
	Man	40	20.72	3.95			
Detailed	Female	12	21.29	3.64	51	0.92	0.42
	Man	40	22.44	4.34			
Introspective	Female	12	21.77	4.20	51	2.02	0.002
	Man	40	23.68	2.42			
Cross-sectional	Female	12	18.70	5.46	128	0.80	0.17

	Man	40	19.76	3.85			
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Results Table 4 shows that only introspective thinking style between male and female managers at 95%, there is a significant difference ( $p < 0.05$ ,  $df = 51$ ,  $t = 2.02$ ) and other there was no significant difference between male and female managers thinking styles ( $p < 0.05$ ,  $df = 51$ ).

3- Is significant difference between thinking styles of managers with regard to the level of education?

To investigate the difference between thinking styles directors according to their education level of analysis of variance was used, the results in Table 5 are as below:

Table 5. Analysis of variance thinking styles according to education level Managers

Variables	Education	Number	Mean	SD	df	F	Sig.
Legal	BS	23	21.43	4.59	2 49	2.59	0.06
	MA	21	22.42	2.92			
	up-MA	8	18.37	3.38			
Judicial	BS	23	24.04	2.55	2 49	2.99	0.09
	MA	21	23.42	3.96			
	up-MA	8	20.50	4.78			
General	BS	23	22.13	3.86	2 49	3.46	0.04
	MA	21	22.09	3.91			
	up-MA	8	18.12	4.26			
Open-minded	BS	23	21.47	3.40	2 49	0.81	0.45
	MA	21	20.04	4.70			
	up-MA	8	21.50	3.42			
Executive	BS	23	19.17	4.63	2 49	2.66	0.08
	MA	21	20.71	4.82			
	up-MA	8	16.37	3.38			
Conservative	BS	23	20.26	4.88	2 49	0.88	0.42
	MA	21	20.05	3.69			
	up-MA	8	18	3.62			
Detailed	BS	23	22.56	2.55	2 49	3.05	0.06
	MA	21	22.38	5.84			
	up-MA	8	18.37	3.58			
Introspective	BS	23	22.65	4.49	2 49	0.01	0.98
	MA	21	22.66	2.72			
	up-MA	8	22.87	2.75			
Cross-sectional	BS	23	19.39	5.18	2 49	0.18	0.82
	MA	21	19.38	4.31			
	up-MA	8	18.25	4.97			

Results of Table 5 showed that the thinking style of the highest mean (22.18) score of graduate management education and the lowest mean (12.18) with high school graduate is allocated. Due to the differences in the mean scores of managers, based on analysis of variance, F observed in the mean scores of the general managers' thinking style according to their education level, there is a 95

percent ( $p < 0.05$ ,  $F = 3.46$ ) and the other thinking styles between managers there was no significant difference ( $p < 0.05$ ).

4- Is significant difference between thinking styles of managers according to experience?

To investigate the difference between thinking styles of managers with regard to the history of the analysis of variance was used, the results is given in the table 6.

Table 6. Analysis of variance with the thinking styles of managers according to experience

Variables	Work	number	Mean	SD	df	F	Sig.
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	experience						
Legal	1 to 10 years	24	21.87	4.85	2 49	0.37	0.68
	11 to 20	17	20.82	3.62			
	Up-20 years	11	20.91	3.47			
Judicial	1 to 10 years	24	21.70	4.93	2 49	1.12	0.33
	11 to 20	17	20.94	2.74			
	Up-20 years	11	23.28	3.41			
General	1 to 10 years	24	20.45	4.75	2 49	0.56	0.57
	11 to 20	17	20.88	3.31			
	Up-20 years	11	20	3.03			
Open-minded	1 to 10 years	24	23.66	4.05	2 49	1.54	0.22
	10 to 20	17	21.94	2.48			
	Up-20 years	11	22	3.46			
Executive	1 to 10 years	24	23.66	4.47	2 49	0.18	0.83
	11 to 20	17	22.94	3.07			
	Up-20 years	11	23.45	2.94			
Conservative	1 to 10 years	24	17.83	5.29	2 49	1.94	0.15
	11 to 20	17	20.52	3.61			
	Up-20 years	11	20.09	4.48			
Detailed	1 to 10 years	24	21.16	5.11	2 49	0.32	0.72
	11 to 20	17	19.35	3.97			
	Up-20 years	11	18.81	5.58			
Introspective	1 to 10 years	24	20.92	4.27	2 49	2.27	0.11
	11 to 20	17	18.12	3.89			
	Up-20 years	11	19.36	4.39			
Cross-sectional	1 to 10 years	24	22.08	4.58	2 49	0.09	0.91
	11 to 20	17	21.88	4.57			
	Up-20 years	11	22.64	4.08			

According to the results table in any of the style of thinking with respect to years of service managers was a significant difference ( $p < 0.05$ ).

**Discussion and Conclusion**

This study aims to check the status of university administrators were thinking styles. With regard to the findings, the thinking styles of managers from the highest to the lowest are: justice, introspective, detailed, overall, the legislator, outward-looking, liberal, conservative and executive. The results of the survey questions related to demographic variables showed that managers are only in the style of introspective thinking difference between male and female managers than male managers to female managers out there, and had a higher level, but in other styles of female and man were not significant. These results are consistent with the findings by Zheng Heung (2001), Pourkiani and Shahilo (2010), which showed no significant difference between the styles of thinking in terms of gender is

compatible only with introspective thinking style, is inconsistent. In thinking styles according to management education in holistic thinking style differences and managers are highest mean undergraduate education respectively. Also according to the record executives, there was no significant difference in thinking styles.

The overall findings of this study showed that the majority of managers surveyed would like to work laws, steps are evaluated and judgments about things. Also, judicial thinking, introspective thinking, thinking is most managers. In other words, more task-oriented managers of Zabol University of Medical Sciences, retirement and others often tend to lack social. Given that one of the structural problems in the organization of educational organizations and universities, especially the emphasis on rules, regulations, that this rules and regulations are not exist

with regard to the current situation. Thus, according to the official results, it is recommended that:

- ❖ Executives and university officials about the latest findings about the desired style of thinking and organization information.
- ❖ As the number of managers are not familiar with how to use this type of thinking styles is recommended, in this regard appropriate guidance and training programs set up that specific chapters are devoted to this style.
- ❖ Infrastructure conditions, including the culture of the community and acceptance of this style of thinking and capacity of the organization to suit the needs and educational goals that use of successful experiences of other countries in this work can accelerate this process.
- ❖ to accelerate the decentralization of the education system and expand the powers of the directors of studies and scheduled to take place regularly

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