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PERSONAL BARRIERS TO MANAGERS' CREATIVITY

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ABSTRACT

The present study attempted to consider personal barriers to creativity of the managers of high school and guidance school of Brojerd city during academic year 2010-2011. The study population of the study is all managers of high school and guidance school (girls and boys) of Brojerd city as they were working as principal during academic year 2010-2011. The sample size is 103 in this study. The study is descriptive-survey design. Personal barriers to creativity questionnaire (Pfeiffer, 1990) were used for data collection. The data were analyzed using one-group t-test and Friedman rank test. The results of the study showed that there is a significant association between pathology of managers' creativity and personal variables. The prioritization of six barriers to creativity was ranked as followings: barriers to confidence and risk appetite (4.53), barriers to the need to adaptation (3.73), barriers to physical environment (3.63), barriers to use of systematic analysis (3.29), barriers to work experience (3.07) and barriers to the use of abstraction and abstract (2.75).

Keywords: Creativity, Personal barriers to creativity, Schools managers

INTRODUCTION

In history, human being life is always changed and innovation on one hand and coping up with increasing needs of life on the other hand made him familiar with the internal creative force. A dynamic force moved his life to development rapidly and it was the source of his innovations and creativities (Soleimani, 2002). Today, we live in a changing world, a complex world encountered with very difficult issues (Haerizade and Hosseini, 2004). In order to survive in the current changing world, we should use creativity and innovation and provide new and innovative responses to cope up with the environment changes. Also, we can influence them by being influenced by them and give them the favorite form (Alvani, 2006).

School management is the most important change and innovation factor in education as teaching and learning as the most important education activities is done in school (Longman, 1985).

Also, based on the current software and machine era, creativity among the school principals is necessary to absorb the teachers and students to creativity and progress. Thus, we should identify the factors or barriers influencing the personal creativity of school principals (Hosseini, 1997).

According to the researches, there are many personal barriers to creativity. The more the self-confidence, the more the creativity. The more consideration to self-confidence, flexibility, fear of defeat, adaptation with environment, aversion of ambiguities, the more the creativity (Qorbanzade, 2000).

Statement of the problem

The human success and progresses depend upon the dynamic effective thoughts (Hosseini, 1997). The study of the organizations with long work experiences showed that the main reason of the survival of these organizations is creating changes and adaptation with external environment as they can compete with similar organizations (Feizi, 1997).

Creativity is one of the most important factors a manager should have. Are school principals creative? What are the barriers to managers' creativity? For survival and progress even to keep the existing condition, we should create new conditions in organization and continue them to avoid stagnation. Creativity and innovation are different and relevant terms (Kaiser, 1968). Creativity is

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defined as: Creativity is using mental capabilities to create a thought or new concept. However, innovation is the process of taking creative idea and turning it to product, services and new methods of operation. Thus, based on the difference between creativity and innovation, we consider creativity as the pre-requirement of innovation. Creative managers in organizations are the center of creativity in entire organization and schools principals as a component of organization are not separated from this issue and provide the success of education organization by their creativity and innovation. Based on giving importance to new and innovative thoughts in organizations, it is necessary to identify the factors or barriers affecting the creativity of school principals. Indeed, identification of these factors and elimination of the barriers, increase power of managers to cope up with the varied environmental changes. Some of the barriers to creativity of managers are dedicated to the environment outside of their work place. Other barriers are dedicated to the features and attitudes of the managers. New scientific researches considered creativity dependent upon some personal features of managers including : Self-confidence, risk appetite, the lack of fear of criticism, group belonging, optimal use of abstracts, systematic analysis power (Qorbazade, 2000). Pfeiffer (1997) in the study associated creativity barriers to risk appetite, self-confidence, the use of abstracts, systematic analysis and environment.

The significance of the study

Today, researchers believe human civilization is based on creativity and the survival of any society is dependent upon the importance given to the development of this ability. One of the most important growth and development factors of any society is finding their talented labor force (Qasemzade, 1996). The duties of school managers are always changed as one of the executive principles in education system and are turned into complex case. Based on the current software and machine era, creativity of managers is of great importance. Thus, we should identify the barriers and effective factors on creativity and reduce or eliminate these factors and increase the capability of managers to cope up with the current changes. As creativity is prevented by some barriers, the role of these barriers is significant. The identification of barriers helps understanding the creativity barriers and on the other hand it helps the design of suitable models to eliminate the barriers. Thus, the inhibiting factors aim to clarify the effective of each factor on growth of creativity. The barriers are mentioned as creativity pathology in the study (Mahbubi and Ture, 2008). As planning to promote creativity and innovation is necessary, its pathology is of great importance. Pathology is identification of the problems and barriers. If a gardener makes effort to provide seed, water and fertilizer but doesn't find the pests, the product is lost. Creativity barriers prevent creativity development. Therefore, identification of negative aspects of creativity and innovation is as important as identification of its positive aspects (Bagheri, 2005). Managers' attitude to creativity is low and our managers are not aware of creativity, process and its development methods. If we direct our education system to creativity development, the first step is planning for awareness of managers of creativity process (Hosseini, 1997).

Review of Literature

Creativity is one of the main features of human being and it is important in personal growth and human civilization and it is also the basis of scientific and artistic achievements and innovations. Researches conducted on creativity showed that creativity is not a specific grace or inherent and hereditary property (Qasemzade, 1996).

Since 1950, psychologists found that intelligent is not the same as creativity and creativity was identified and various researches were conducted in this regard. Gliford for the first time extended this issue. Gliford paper had important effect on the further studies on creativity (Aghayi Fishani, 1998).

Creativity is using mental capabilities to create new thought and innovation is making new thoughts of creativity practical (Kaiser, 1968).

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Mark A . Runco (1993) conducted the study “creativity as an Educational objective for disadvantaged students”. The results were using (1) stimulus rich environments, (2) nonverbal materials, and (3) independent and small group assignments.

According to the study of Lee-K-T (1997) “Creative Management as a Strategy for Breakthrough Innovation” referred to creativity management points. The major points include clear strategic directions, systematic teamwork and collaboration, focus on strategic industrial relevance, balance between autonomy and control and need for application of continuous improvement.

Chang. Chung-Shiuan (2000) in the study “learning of students via environmental education and group education” found that learning needs empirical ground and practical knowledge, grounds and personal features, individual interest and creativity and freedom in learning and supporting human relations can be important in creativity.

According to another study by Anderosen and George (2000) regarding “education”, the researchers considered life style and education methods during 1950, 1976 and 2001. This is done for preparation of children in 21th century. It was said that physical, cultural and political environments are different for people and education includes a continuous process and it should be with various learning and stimulus methods. They propose unique and flexible plans and live creativity skills and they believe the teachers should make the students familiar with creativity skills to be consistent with the changes.

Pfeiffer (1997) associated creativity barriers to risk appetite, self-confidence, the use of abstractions, systematic analysis and environment. Also, some researches evaluated the relationship between creativity and demographic variables. It was said that younger and less experienced managers should be interested in following creative-based strategies. However, more experienced managers don't show any interest to changing existing condition and they follow current norms of organization.

The local researches

Manafi (2001) in the study “comparison of the barriers of creativity in physical education managers of the universities affiliated to Sciences ministry and universities of health ministry” by personal barriers to creativity questionnaire of Pfeiffer showed that the use of systematic analysis and abstractions and the need to adaption were not suitable among the managers of physical education of Sciences and health Ministry Universities. These factors are effective factors of creativity barriers from the view of managers. There was a significant and inverse association between age, self-confidence and risk appetite of the managers of physical education offices of Universities at the level 5%. The higher the age, the lower the self-confidence and risk appetite. There is a significant association between education degree and self-confidence and risk appetite of managers at the level 1%. There was no significant association between other personal features.

Sadeghi, Gudarzi (2008) conducted a study “comparison of the personal barriers to creativity among the teachers of men and women physical education of Neishabur. The study population was 120 (73 men and 57 women) and responded to Pfeiffer questionnaire. The results were divided into 6 groups in terms of personal barriers to creativity by Pfeiffer. There was no significant difference between male and female teachers. In both groups, the lowest share was regarding self-confidence and risk appetite and the highest problem was among male teachers regarding the barriers to use systematic analysis and regarding the barriers of physical environment among female teachers. By increasing age and teaching experience, the creativity problem of female teachers to use abstraction and abstract is increased. The higher teacher experience among men, the higher the barriers to work success. The higher the age and work experience, the higher the barriers and the education degree reduced the barriers to self-confidence and risk appetite. Age and work experience increased the share of the barriers to physical environment among male teachers.

Qafari (2009-2010) in the study “design and assessment of casual model of creativity and innovation of educational managers of Tehran city” showed that creativity and innovation of principals of Tehran schools was average. The difference of organizational culture variables, organizational climate-organizational learning- knowledge management and creativity and innovation among women and men

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showed that there was no significant difference between men and women in organizational learning and innovation and organizational culture. However, there is difference in creativity, knowledge management and organizational climate between two groups as men had better condition compared to women.

Qorbanzade investigated the creativity of principals of schools and its personal barriers in Ferdos town during 1999-2000. The study aimed to identify and compare the creativity of principals of elementary, guidance and high schools and identification and comparison of creativity barriers of managers and identification of the relationship between personal barriers and creativity of managers. The results of the study were including as: The mean creativity of managers in three levels was average and below average. 2- The number of managers was above average in terms of creativity. 3- There was no significant difference between the mean of creativity of managers in three levels, 4- Although the creativity mean was more among female managers than creativity mean of male managers but the difference was not significant. 5- Based on the management experience 6-10 year with high creativity mean, the management experience had not significant difference. 6- There was a difference between creativity of managers and education degree (Diploma, associate and BA), the difference was not significant. 7- There was a significant difference between personal barriers to creativity of managers. 8- There was a direct and significant association between creativity of managers and its personal barriers.

Study purpose

The present study aimed to investigate personal barriers to creativity of principals of schools of Brojerd city.

Study questions

How are the personal barriers to creativity among managers of Brojerd city schools?

How is the prioritization of six personal barriers of creativity among the managers?

STUDY METHODOLOGY

This study is applied in terms of purpose and descriptive-survey in terms of data collection method. Also, it is field and library in terms of data collection and environment. The study population is the managers of high school and guidance school of Brojerd. The number of male and female principals of guidance and high schools of Brojerd was 119. The sample size was equal to the total population $N=N$. Based on sample size, 119 questionnaires were distributed among the principals and after completion, review and numbering, 103 questionnaires were used for data analysis.

The data were collected using Pfeiffer questionnaire with international standards. The mentioned questionnaire was used by Moghimi (1998) and internal and external validity and its reliability were supported.

Although the mentioned questionnaire is valid and standard, its reliability was measured by Cronbach's alpha and SPSS software as 0.87.

STATISTICAL ANALYSIS METHOD

For data analysis of study data and the investigation of study questions, SPSS software and descriptive and inference tests based on the type of data and variables were used. At first, by contingency table of frequency distribution and column charts, the demographic variables of the respondents (gender, education level, education and management experience) were described. By descriptive statistics, mean standard deviation of the scores of studied variables (personal barriers to creativity) were described. To investigate the study questions, one-group t-test was used. To rank personal barriers to creativity, Friedman rank test was used.

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RESULTS

Table 1: Frequency distribution and percent of respondents in terms of education level and gender

Sum	Gender		F/%	Education level
	Woman	Man		
38	22	16	F	Guidance school
100/0	57/9	42/1	%	
65	31	34	F	High school
100/0	47/7	52/3	%	
103	53	50	F	Sum
100/0	51/5	48/5	%	

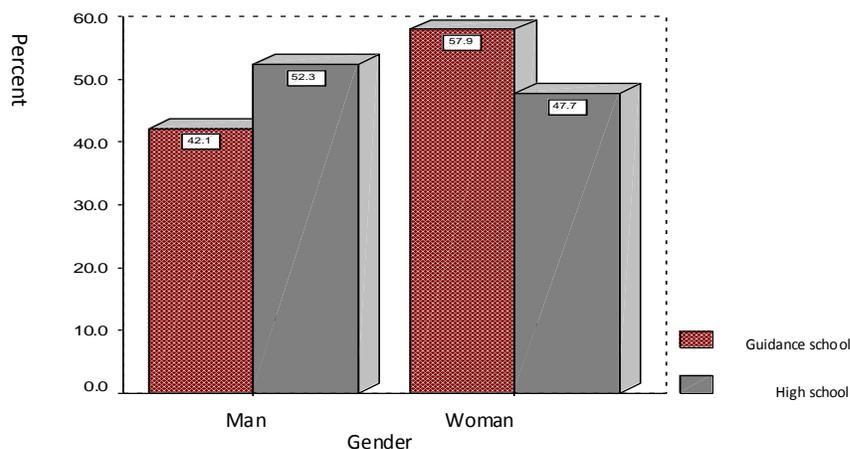


Chart 1: Percentage distribution of respondents based on education level and gender

Table 2- Frequency distribution and percentage of respondents based on education level and education

Sum	Education			F/P	Education level
	MA	BA	Associate		
38	0	24	14	F	Guidance school
100/0	0/0	63/2	36/8	%	
65	10	55	0	F	High school
100/0	15/4	84/6	0/0	%	
103	10	79	14	F	Sum
100/0	9/7	76/7	13/6	%	

Table 3- Frequency distribution and percentage of respondents in terms of education level and management experience

Sum	Management experience in terms of year				F /%	Education level
	Above 15 years	11-15 year	5-10 year	Below 5 years		
38	15	5	9	9	F	Guidance school
100/0	39/5	13/2	23/7	23/7	%	
65	17	10	17	21	F	High school
100/0	26/2	15/4	26/2	32/3	%	
103	32	15	26	30	F	Sum
100/0	31/1	14/6	25/2	29/1	%	

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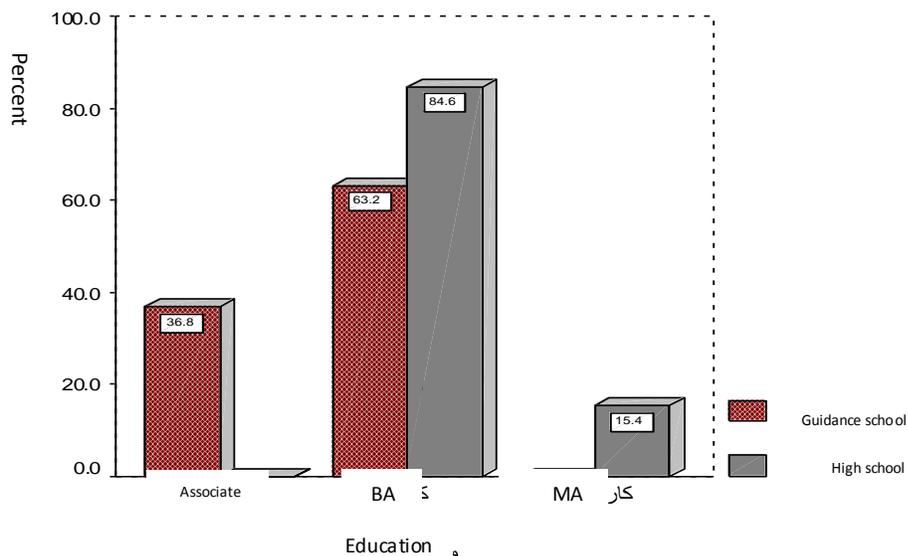


Chart 2: Percentage distribution of respondents in terms of education level and education

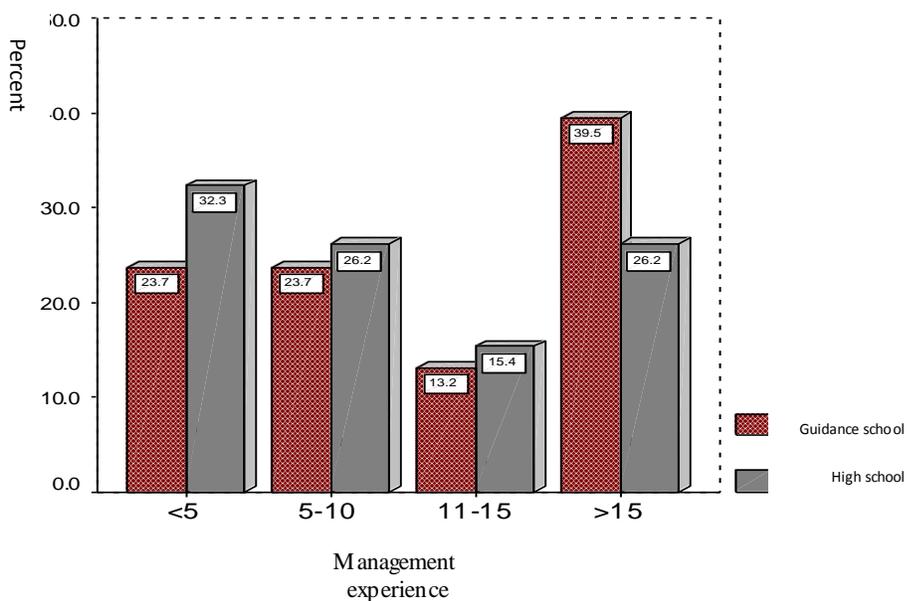


Chart 3: Percentage distribution of respondents in terms of education level and management experience

Description of the scores of personal barriers to creativity

In each questionnaire, each barrier is evaluated by 6 questions of 5-item Likert scale (1-5), the scores of each variable are ranging 6-30 and the descriptive statistics are shown in the following Table.

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Table 4- Minimum, Maximum, Mean and Standard Deviation of scores of personal barriers to managers’ creativity

Variance	SD	Mean	Max	Min	Personal barriers to creativity
9/585	3/09593	23/0583	29/00	13/00	Barriers to self-confidence and risk appetite
4/828	2/19721	21/6796	27/00	16/00	Barriers to the need to adaptation
6/095	2/46888	20/5146	27/00	15/00	Barriers to the use of abstract and abstraction
7/480	2/73491	21/2427	27/00	15/00	The barriers of the use of systematic analysis
8/087	2/84373	20/8252	27/00	13/00	The barriers to work experience
4/524	2/12694	21/7476	28/00	16/00	Barriers to physical environment

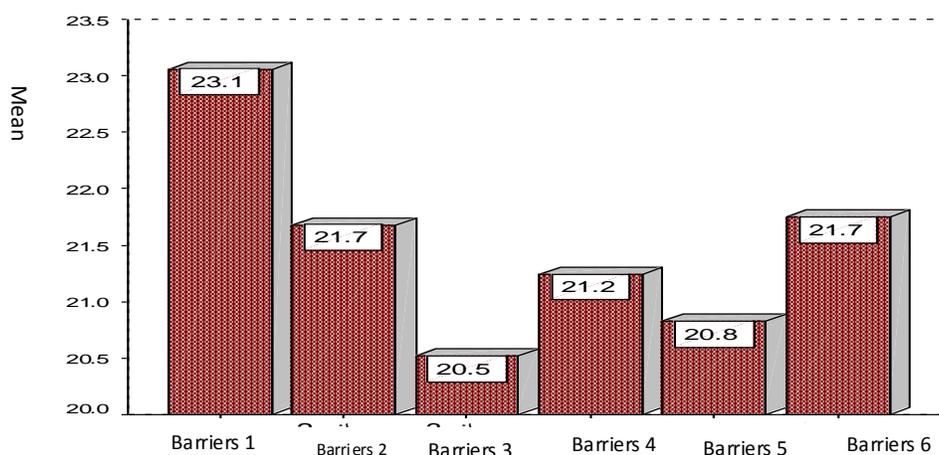


Chart 4- The mean of the scores of personal barriers of managers’ creativity

Based on Table and Chart 4, among personal barriers to creativity, barriers to self-confidence and risk appetite had the highest mean (23) and barriers to use abstract and abstractions had the lowest mean (20.5).

Study questions

1- How are the personal barriers to creativity among the managers?

As the personal barriers to creativity questionnaire is with 36 questions of 5-item Likert scale (1 to 5), the scores are ranging 36-180 with the mean 108. Thus, to respond the above question, by one-group t-test, the mean of personal barriers to creativity of managers was compared with the expected mean (108) and the results are shown in the following Table:

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Table 5- The results of one-group t-test of comparing the obtained mean with mean criterion

Significance level	Degree of freedom	T statistics	SD	Variable mean	Mean criterion
P<0/001	102	22/178	9/64	129/06	108

How is Prioritization of the six barriers to personal creativity among the managers?

To respond the above question, the means of six barriers to personal creativity were ranked by rank Friedman test and the results are shown in the following Table.

Table 6- The results of Friedman rank test

Significance level	Degree of freedom	Chis-square statistics	Rank mean	Personal barriers to creativity
P<0/001	5	60/728	4/53	Barriers to self-confidence and risk appetite
			3/73	Barriers to the need to adaptation
			2/75	Barriers to the use of abstract and abstraction
			3/29	The barriers of the use of systematic analysis
			3/07	The barriers to work experience
			3/63	Barriers to physical environment

DISCUSSION AND CONCLUSION

Regarding the first question, based on the data of Table 5, the value of one-group t test statistics 922.178) at the level 0.01 with degree of freedom 102 is more than critical t value (2.58) (t=22.178, df=102, P<0.001). Thus, it can be said there is a significant difference between the mean of studied variable (129.06) and mean criterion (107). It can be said the personal barriers to creativity was above average among the managers. The results of the research of Manafi (2001), Qorbanzade (2000), Sadeghi (2008), Mark A . Runco (1993), Anderosen and George (2000), Lee-K-T (1997) supported the results and they were consistent. The results of the study of Mahmood Gudarzi (2009) showed that there is no significant difference between men and women in any of personal barriers to creativity. The results of the study of Qorbanzade (2000) showed that the mean creativity of managers in three levels (elementary, guidance and high schools) was average and below average and a few of them was above average.

Regarding the second question, by Friedman rank test, the means of each of six barriers of creativity were ranked and the results were shown in Table 6. As shown in Table 6, as the calculated value of Chi-square statistics is 60.728 at the level 0.01, with degree of freedom 5 is more than critical chi-square (15.086), it can be said that there is significant difference between the ranks mean. Thus, personal barriers to creativity based on importance degree are ranked as followings:1- Barriers to self-confidence and risk appetite (4.53), 2- Barriers to the need to adaptation (3.73), 3- Barriers to physical environment (3.63), 4- Barriers to the use of systematic analysis (3.29), 5- The barriers to work success (3.07), 6- Barriers to the

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use of abstracts and abstractions (2.75). The results of the study of Qorbanzade (2000), Hassan Sadeghi and Gudarzi (2008), Manafi (2001) supported the results of the study.

Recommendation

As the barriers to self-confidence, systematic analysis, barriers to the need to adaptation, barriers to physical space, work success are the major barriers to creativity of the managers of schools. To reduce these barriers, we can increase the education level, continuous training, creation of motivation and appropriate conditions to develop creativity among the school principals.

- Barriers of creativity of the chiefs of education can be investigated.
- The comparison between barriers to creativity of educational managers of male and female sectors.

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