An investigation on the amount of employing total quality management principles by school principals and its’ correspondence with their affectivity

Hossein Jenaabadi¹, Abolfazl Khosropour²
¹Associate Professor, Faculty of Psychology, University of Sistan and Baluchestan, Iran
²M.S in Educational Administration, University of Sistan and Baluchestan, Iran
*Corresponding Author, Email: hjenaabadi@ped.usb.ac.ir

ABSTRACT
This research shed light on the amount of employing quality management principles by education department principals, at high school of Zahedan as well as on the correspondence between employing the principles of quality management and high school principals’ competency. The main purpose of this research is to find out to what extent the quality management principles are employed by principals in schools, and what is the relationship between employing these principles and principals’ competency. In order to answer the questionnaire, the principals were divided in to two groups of up and down. From each school, three teachers were selected who completed the questionnaire of competency or affectivity. In the process of determining the reliability of the questionnaire, Cronbach’s Alfa Coefficient was used. The coefficient for questionnaires, of quality management and principal’s competency(or affectivity) was 0.81 and 0.72, respectively. The results of independence ‘T’ test show that between the level of principals who have employed the principles of quality and that of principals who haven’t done so, there exists a meaningful difference. Statically result of Pearson correlation coefficient test show that between the amount of employing the principles of quality management and high school principals, there is a correlation of 0.85 which is meaningful at the level of 0.01 percent.

1. Introduction
The organizations of present time have to pay attention to the quality of their products and services for their survival, so that they become capable of satisfying their present customers, attracting new customers and increasing their resources of income. This will be achieved through enforcing appropriate management. In order to improve the quality, managers need various means, one of which is implementation of quality management system. Total quality management leads to increase in production, optimization of quality, decrease in re-working, increase in satisfaction of customers, decrease in costs resulted from poor management and improvement of competition advantage. In spite of being common in all fields, the term of quality management is still prevalent only in factories and some of service sectors. Although, the information in limited, regarding the implementation of implementation management in some fields such as education research, consultation and so on, by utilizing quality patterns, used in other fields and integrating them with effective indexes in improving the trend of education, accepted results are achievable in this field. As the most prominent manifestation of human force investment, educational systems play the main role in prosperity of society. Now a days, a good share of budget is assigned to these systems. Measures should be taken for improving the quality of educational systems and avoiding from loss of human and material assets, regarding their importance and role in economic, social, cultural and politic dimensions. Management in these systems is particularly important. In a system-oriented structure, education can possess a key role in transference of knowledge. Education well be based on national necessity and toward progress of culture and knowledge of new management, if management system is developed on quality and customer based approach. System and structure of educational management, in this regard is considered in the system of quality management. Educational institutions as a bridge between knowledge seekers need vital evolution to response to social, political, economic and cultural changes (Faraji, 2005). Since, third millennium has been named the period of knowledge and information explosion, educational department that have devoted itself on information transference and promotion of learners’ knowledge, feels a greater mission in which it looks for the answer of the question whether traditional methods of education are able to meet learners’ needs in the beginning of new century. Management of education department is faced with various challenges, such as lacking up to date management.
information, not being meted the needs of learners, not preparing the conditions of teaching, teachers are not informed of advanced methods of teaching, concentration over educational institutions, fading out of traditional courses of study (appearance of new courses) not participation of people in educational trends, and undesirable quality of educated persons (Lankaran, 2003). To cope with these challenges, department of education considers the employment of total quality management (TQM) - a philosophy of continual advancement. It provides every educational institution with a set of scientific tools and technique for full filling the present and future needs and expectations. Since the educational foundations and organizations are considered as main determinant factors in preparing and supplying human force for other foundations of production and services in the society, the necessity for study and implantation of quality management principles in education is felt more than ever.

For improving the quality and implementing the quality management in schools, first thing which comes to mind is the role of principals in continual improvement of quality that is very prominent, because it is the main factor in controlling the individuals, trend or system. On the other hand, the principals should be trained before the other stuff and model of quality management. Even though all the teachers and subordinate stuff work under their supervision, advancement does not happen, unless the principals themselves participate in these activities. The main column of quality management is based on commitment and obligations of principals participate. That is, they are informed of and believe in the quality management (Moradmand, 2007). There for in this rapidly changing and evaluating world, total quality management is a determinant factor for educational managers. Application of total quality management has been a successful scenario for many advanced educational institution.

2. Literature Of Research

It can be said that total quality management is not merely an idea; instead it is a prevalent movement. Indeed, the total quality management is a group managing method for carrying out the tasks, and continually improving the quality, capabilities, and competency force more effective. Total quality management promotes the schools in many fields such as evaluation trend, attention of school for students and teachers. It also improves educational and course programs, educational services. And eventually it decreases the costs.

In a research, examining the level of awareness and employing the quality management principles and method by principals of area-2, city of Shiraz and the relation of these principals with teacher’s productivity, Farsi (2003) concluded that the principals are aware of the principles of quality management to some extent, and they employ those in school trends. In an article under the title of “Application of principles and concepts of total quality management to the section of medical documents: educational hospitals of medical science university of Iran” Ahmadi and Karame (2003) concluded that in the mentioned section, the principles and concepts of total quality management are applied to some extent. In a research, examining the status of total quality management in the organization of physical training of country gained the following results: the principles of TQM are not employed in the organization. Quality is not supported by top management. Moreover, an authorized strategic plan was not designed for attaining the quality. Staff are not trained for reaching the quality in services. Team works are not reinforced for quality purposes.

Principals and teachers implement the quality management principles. At first, quality management was applied from regional supervisors to principals and teachers, and then it was prevailed through classes for teachers who along with teaching continue their educational course, classes for a continual improvement and guiding classes. In a research, Elaine examined the total quality management in high schools of Minnesota. He suggested that the structures which imply total quality management include continual improvement, attention to customers; data based decision, leadership, trend evaluation and study, thought system and training. The results of research showed that sever principles of total quality management are being implemented in high schools of Minnesota. Obstacles on the way of implementing total quality management are time, and stuff insight and training. In a research under title of “The status of participatory management and its’ effect on principals affectivity in the university of Ferdousi, Mashhad” Koohestani concluded that there is a meaningful and direct relation between participation style and principals affectivity. The presence of proper grounds and established factors, including overview in foundations and structure of organization, organizational atmosphere and proper work place, closeness of individual and organizational goals can lead to an increase in application of participatory management style as well as in individual and organizational affectivity. In a other research “ an investigation on the effect of management style on principals affectivity in the university of TarbiatModares “, Ebrahimi concluded that there is a positive correlation between application of such styles as consulting and participatory management and stuff affectivity. By employing new methods of participatory and quality management, stuff affectivity can be promoted. In a research called a examining the role of participatory management in increasing the affectivity and productivity of stuff “Islami poor (1995) concluded that implementation of participatory management causes the work force productivity to increase. And due to lack of sufficient education and needed information, the labors could not participate properly in doing their jobs. Implementation of participatory management leads to increase in work force productivity and decrease in costs and losses. In a research effect of stuff and principals’ education during their employment on their affectivity - Raifi, gained the result that there is a relation between education of stuff during their work and their affectivity. The principals who study during they are working are more effective than those who don’t study. In a research comparing the level of satisfaction and affectivity in stuff and principals other than lecturers in industrial university of Isfahan, Edris and Ra’eesi (2004) the following results: Regarding all effective factors on affectivity, the principals had more positive ideas than others. Seemingly it was due to their participation in operational planning in the university.

In his research under the title of “management methods of human resources, scientific board lecturer affectivity and its’
effect on their teaching functions and affectivity of university. Dominic.c concluded that the increase of scientific board(lecturers) affectivity is influenced by the grade of the members of scientific board, their work volume and précised evaluation of their performance. In their research–reforming and improving the work yields of stuff- Dian and levanindicated that performing some studies on time and movement in training the individuals, continual and sustainable attention and respect increase the affectivity of stuff. Davis, in his research showed that there is a direct relation between work satisfaction and stuff’s affectivity. He suggested that main factors which from affectivity; include competency, merit, direct supervision, work satisfaction, adaption with co-workers, organizational aims, a useful and satisfactory organization and satisfactory prizes. According to a research on improvement and reform of administrative and executive leadership effect on teachers’ affectivity, in Philadelphia school showed that professional research and participation motivate school teachers. The result of research showed that the schools with higher level of decent ration have a better status, regarding the performance, affectivity and yield.

3. The goal of research
Investigating the level of employing the quality management by principals and its’ relation with their affectivity.

3.1. Hypotheses of the research
1- Principals employ the quality management principals in the schools.
2. There is a meaningful different between the principal who employ the quality management principals and the principals who do not.
3. There is a relation between employment of total quality management by principals and their affectivity.

4. Method of research
Since the data of this research, involve principals and teacher’s ideas, so the research is a kind of descriptive-correlate, scientific-comparative. The research examines the present status of management in schools, regarding total quality management principals, and the relation between these principals employment and principal’s affectivity. Statically community of the research involves all male and female principals and teachers of high schools of Zahedan city.

Due to smallness of statically community in this research, the method of head counting sampling was adopted. Entire statically community (n=92) was selected as the sample. After data collection, some of incomplete questionnaires (14) were removed. Analysis of data was conducted based on principals questionnaire (37 male -41 female). Sampling of teachers was done by random method, in which three teachers were selected as the sample; data were collected, using two questionnaires of total quality management and principals’ affectivity. For evaluation of the level of application of quality management method and principles, reformed questionnaire which was a derivation of Farsi work, was used. This questionnaire contains 43 question and the subject were asked to give their ideas about each question which has five- optional answers, arranged from 5(very much), 4(much), 3(much too some extent), 2(little) to 1(very little). The subjects simply had to select on option, which is the best adapted with their idea. For determining the expressiveness of questionnaire of quality management, the questionnaire along with the list of aim was given to five lecturers of the courses of educational science and management. They were asked to determine the relation of each question with the mentioned aim on a range of appropriateness: extremely inappropriate, inappropriate, appropriate to some extent, appropriate, extremely appropriate. And each of the option has a number (5-4-3-2-1) respectively. According to lecturer's opinions, the question was included in the questionnaire. For reliability of the questionnaire of the quality management Cronbach’s alpha was used. This value was obtained: 0/81 for assessment of the principal’s affectivity, reformed questionnaire derived was used. This questionnaire has 25 questions with Likert’s four- optional criterion (from always to rarely). For determining the reliability of the questionnaire of principals affectivity, the questionnaire along with the mentioned aim was given to five lecturer of management and educational science to point out the level of relation of each question with the mentioned aim on a range constituted of five option: 5 (completely inappropriate.), 4 (inappropriate), 3(appropriate to some extent), 2(appropriate), 1(completely appropriate). The opinions of lecturers were considered including the questions. For assessing the reliability of questionnaire of principals’ affectivity, Cronbach’s alpha was used. The rate Cronbach’s alpha was gained in the questionnaire of quality management as being 0/72 statically methods unless, percent of plentiful unless, percent of plentiful unless, central indexes (including mean, median and mode)and sparseness (variance and standard deviation).

In the part of deductive statics, test of single-variable-k-root, independent and Pearson's correlative coefficient were used.

5. Results
5.1.First Hypothesis
The principles employ the principles of quality management. Total scores of 1/42 questions of quality management questionnaire, completed by principals indicate the level of employment of these principles by principals.
Table (1): Single-variable t-test relation to the level of employing principles of total quality management by principals

<table>
<thead>
<tr>
<th>Variable</th>
<th>Numbers</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>T</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment the principles of quality management</td>
<td>78</td>
<td>163.6</td>
<td>25.32</td>
<td>57.06</td>
<td>77</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Finding of table 1 show that the level of employing the principles of total quality management by principals with the mean (163.43) is higher than the mean of assuming questionnaire (126). Calculated “T” (57.06) with freedom grade of 77 at the level of 0.01 is meaningful.

5.2. Second Hypothesis
There is meaningful deference between affectivity of principal’s who employ the quality management principles and those who don’t.

Table (2): Principals’ affectivity deference regarding employment of principles of quality management

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Numbers</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>T</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>principals’ affectivity</td>
<td>First group</td>
<td>9</td>
<td>44.44</td>
<td>5.65</td>
<td>-9.21</td>
<td>45</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Second group</td>
<td>38</td>
<td>82.79</td>
<td>12.10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since, calculated (-9.21) with freedom degree of 45 is greater than the critical amount of table at the level of 99 percent (2-2), so statically the difference is meaningful. Then it can be concluded that between the mean affectivity of two groups at confidence level of 99 percent, a meaningful difference exists.

5.3. Third Hypothesis

There is a relation between the level of principal’s affectivity and employment of principles of quality management by them.

Table (3): Correlation coefficient between the numbers resulted from total quality management employment and affectivity

<table>
<thead>
<tr>
<th>Pearson’s correlation</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Quality management</td>
</tr>
<tr>
<td>0.85</td>
<td>Principals affectivity</td>
</tr>
</tbody>
</table>

Statistically results of Pearson’s correlation coefficient test showed that between the level of employing the principles of quality management and principal’s affectivity, a correlation of 0.85 exists, which is meaningful at the level of 0.01 percent. With respect to 0.859 correlation coefficient, it can be said that the more the employment of quality management principles by principals, the more their affectivity increases.

6. Discussion and conclusion

Principals employ the principles of quality management

Whole questions (from 1 to 42) of total quality management questionnaire which assessed the level of employing the principles of total quality management by the principles, showed that the scores, relating to the level of employment of total quality management principles are desirable and accumulation of the numbers at upper part is more than lower part. So, we concluded that the principals employ the principles of quality management. This result is consistent with the results of the researches carried out by Ahmadi and Krami, Farsi, Hosseinpoor (2005) concluded that in the section of medical documents of educational hospitals of Iran medical sciences university, the principles and concepts of total quality management are employed to some extent. Farsi (2003) found out that principals employ method and principles of quality management in schools. Examining the present and desirable situation of schools states, the principals believe that they employ the method and principles of total quality management to a great extent.

7. Researchers and principals employ the principles of quality management

Since, no subject under this title has not been considered in researches in Iran, in discuss and conclusion, only the opinions of experts of this field and the similar subjects have been used. Edris and Ra’eesi (2004) in their article concluded that regarding all effective factors on affectivity, principals have more positive opinions and increase of affectivity of principals are resulted from their general participation in performing plans of university. Possibility of other stuff participation leads to an increase in their satisfaction and effectiveness. Since
participation is one of quality management principles, it is relevant to our subject. In his article, Koohestani(1997) concluded that between the participatory style and meaningful relation. Presence of proper grounds and establishing factors such as overview in foundation and structure of organization, proper work place and organization atmosphere and closeness of individual and organization atmosphere and closeness of individual and organizational aims can leads to participatory management style and advancement of individual and organizational affectivity. Between employing styles of consulting and participatory management and stuff affectivity, positive correlation exists and by implementing new participatory exist and by implementing new participatory management and quality management, stuff affectivity can rise. In his article, Islamipour (1995) concluded that implementing participatory management causes the workforce productivity to be increased because of lacking sufficient education and necessary information, labors could not effectively participate in administrating the works. Implementation of participatory management leads to increase in workforce productivity and decrease in costs and losses.

Ra’ufi (2004) concluded that there exists a relation between education of staff and principals during their duties and affectivity. Principals who have been educated during their duties are more effective than other principals and the career grade of lecturers, work volume and precise evaluation of members of scientific board (lecturer) are the reason of affectivity of this board. Carrying out time and movement studies in training the individuals, consideration, attention and respect sustainably among stuff are effective in stuff effectiveness. In his research, Davis showed that there is a direct relation between individual’s affectivity and occupational satisfaction. He suggested that main factors which from effectiveness include competency, merits, direct supervision, satisfaction of work itself, adjusting with other co-workers, possessing organizational aims, useful and satisfactory organization, sufficient satisfaction of economic prizes and related issues, professional research and participation motivate the teachers. Also, the schools which are more conventional are better situation regarding performance, affectivity and yields.

With respect to analyses, looking totally, it can be said that the principals generally employ the method and principles of quality management. In addition, the results showed that the more, the level of employment of total quality management by principals, the more, higher affectivity is expected and application of these principles to educational trends of schools is effective in increase of affectivity.

References


