The Effectiveness of Communication Skills Training to Increase Job Satisfaction and Job Performance of Employees in Bandar Imam Petrochemical Plant in Mahshahr

Shayesteh Khaleghi¹, Rezvan Homaei*²

Abstract

The aim of this study was to determine the effectiveness of communication skills training to increase job satisfaction and job performance in employees of Bandar Imam petrochemical plant in Mahshahr in 2016. The statistical population consisted of all employees of Bandar Imam petrochemical plant in Mahshahr in 2015. 30 employees who were selected by convenient sampling constituted the sample of the study and were assigned to experimental and control groups (15=experiment and 15=control). The research employed quasi-experimental and pretest-posttest methods with control group. The tools used in this study were Fildoroso's job satisfaction and Paterson’s job performance questionnaires. The results of the test using analysis of covariance showed that, according to the average job satisfaction in the experimental group compared to the control group, communication skills training increased job satisfaction in the experimental group. The effect or difference is equal to 0.44. According to the average job performance in an experimental group compared to the average control group, communication skills training increased job performance in the experimental groups. The effect or difference is equal to 0.46.

Keywords: Communication skills, Job satisfaction, Job performance.

¹ Department of Psychology, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran.
² Corresponding Author, Department of Psychology, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran. E-mail: homaei@iauahvaz.ac.ir
Introduction

Organizations today witness many rapid and unpredictable changes in the environment. Increasing global competition, the development of information technology and changes in the demographic characteristics of human resources and customers are located in the heart of these changes (1). Experts evaluate the performance of employees by actions where people’s tasks are systematically measured on how to carry out them in jobs (2, 3), specify talent and potential of employees to improve specific tasks and develop their careers; show a preferred method to motivate staff (4) and give feedback to the individual to recognize his own shortcomings (5). Job performance in employees is regarded as one of the main issues that managers and administrators of organizations are looking to increase it and is defined as set of job-related behaviors that people exhibit (6-8). In addition, performance is achieving the tasks assigned to the staff resulting from both an ability and motivation. It is therefore important that according to their circumstances, organizations take appropriate mechanisms to develop human resources (9). The main objective is to evaluate the performance of essential information about the employees working in agencies and providing them for managers so that they can make an appropriate and necessary decision in order to raise the quantity and quality of staff (10) and identify their ultimate talent through performance evaluation (11).

Communication is one of the most important tools for the civilized society and it can be said that it is the most important factor in the development of human excellence; in other words, communication is vital for a successful man. As communication is vital for a human, it is also critical for the formation and survival of the organization (12). Communication skills include verbal and nonverbal skills.

Research has shown that nonverbal language is an important tool for expression of emotions and thoughts (13). According to Watts and Pitel (14), in communication skills, role play is organized as physical education, active listening and constructive feedback (direction). On the other hand, job satisfaction is one of the most important factors for career success and also increases efficiency and sense of personal satisfaction (15). Most experts believe that an occupational relationship is directly associated with psychological and social factors and realize that job satisfaction is guaranteed if it provides an optimal enjoyment for an individual (16-19). Without a doubt, the organizations are seeking for some methods or strategies to increase motivation of their employees and thus, improve their performance and increase their commitment to the organization. If job satisfaction increases, both individuals and organizations are able to achieve their own objectives and, therefore, greater success will be
achieved (20). Job satisfaction is one of the ways in which information related to staff including their attitudes, feelings and personal preferences may be described (21) and shows the interest of the people to their jobs (22). Gieter, Hafmanz and Pepermenz (23) in a study conducted on nurses came to the conclusion that job satisfaction and organizational commitment are decisive factors in the decision to leave nursing service. In examining the impact of the recession on job satisfaction, organizational commitment and self-regulation in employees, a study was conducted on 1024 employees; the results showed that participants reported low level of extrinsic job satisfaction and affective organizational commitment after the start of the recession. Also, normative commitment was also unexpectedly less than normal. This shift in attitude contributed in the low achievement orientation and increased focus on prevention and precaution in economic actions (24). In the research carried out by using social capital and reasonable action theories, the authors proposed a model in which the relationship between corporate investments in social capital as well as employee attitudes about work-related services, norms and behaviors were examined. The above research showed that corporate investment in social capital leads to increased employee commitment and better performance (25). Given the importance of the subject, the present study is an attempt to further clarify the issue of whether communication skills training affects increased job satisfaction and job performance in employees in Bandar Imam petrochemical plant (RA) in Mahshahr?

Method

Research design:

In this study, an empirical research and pretest and posttest design with control group were used.

Subjects: The study population consists of all employees in Bandar Imam petrochemical plant (RA) in Mahshahr in 2015. The statistical population consisted of all employees of Bandar Imam petrochemical plant in Mahshahr in 2015. 30 employees who were selected by convenient sampling constituted the sample of the study and were assigned to experimental and control groups (15 = experiment and 15 = control). Experimental and control groups were equivalent by random sampling and before applying the experimental interventions in the experimental and control groups, pre-test and post-test were carried out at the beginning and end of the intervention, respectively. The difference between pre-test and
post-test of each group was evaluated in terms of statistical significance. Thus, communication skills were implemented as independent variables so that its impact on job satisfaction and job performance in employees of Imam Khomeini Bandar (RA) to be identified as the dependent variable.

**Data Collection Tool**

**Barry Fildoroso’s job satisfaction questionnaire (1999):** The questionnaire contains 36 items in scales of (strongly agree, I agree, no comment, disagree and strongly disagree). Scoring methods used ranged between 36 to 180. As a general rule, the higher the score, the more satisfaction from work. In order to test the validity of this questionnaire, Salehi (26) utilized two alpha Cronbach and split-half methods. Reliability coefficient was calculated 86% using Cronbach's alpha and 78% by split-half method. Obtained validity coefficient is significant at 0.01 level of significance and has desired validity. To determine the reliability of job satisfaction by Grasmick et al., (2001), Cronbach's alpha and split-half methods were calculated 0/85 and 0/78 for the total inventory, respectively, which demonstrated that the reliability of the questionnaire was acceptable. In the present study, to determine the reliability of job satisfaction questionnaire, Cronbach’s alpha was computed 0/88 for the whole questionnaire, which shows that the reliability coefficients of the questionnaire were desirable.

**Paterson’s job performance questionnaire:** The questionnaire was developed by Patterson (1986) and was translated by Shokrkon in Iran (1990). The questionnaire has 15 items. Shokrkon (27) calculated the reliability of test with Cronbach's alpha equal to 89%. It measures the employees’ performance in job and organizational duties. The questionnaire has 15-items in 5 point Likert scale and its options include never, rarely, sometimes, often, and always. Scores of 1, 2,3,4,5 are given for each option. Thus, the range of scores for each subject is between 5 to 75. In order to test the validity of this questionnaire, Salehi (26) utilized two alpha Cronbach and split-half methods. Reliability coefficient was calculated as 86% using Cronbach's alpha and 78% by split-half method. The reliability coefficient at a significant level was achieved 0/05 and represented desired reliability. In the present study, to determine the reliability of job satisfaction questionnaire, Cronbach’s alpha was computed
0/88 for the whole questionnaire, which shows that the reliability coefficients of the questionnaire is desirable.

**Communication skills training package** refers to skills developed by the Department of Preventive Welfare Organization. These skills are trained by a specialized workshop in specific hours for the research sample. The training sessions are held in eight sessions in a classroom at the company's headquarters of Bandar Imam petrochemical plant in Mahshahr. Each session lasted half an hour.

**Procedure:** after the coordination and selection of samples of subjects in the experimental and control groups, answer sheet and response letters were prepared. The confidentiality of information was guaranteed, a general description of the work was presented and their participation in this test and research was justified. Finally, they were asked to cooperate with researchers and subsequently, 30 pre-test answer sheets for job satisfaction and job performance were distributed among 30 participants. After completing the pre-test, communication skills training intervention was distributed among 20 subjects in the experimental group. In this study, multi-stage communication skill training was held as a group.

**Results**

SPSS software eighteenth version 18 was used for analyzing survey data. The significance level in this study was determined 0.05. The descriptive results of this study included statistics indicators such as mean, standard deviation and the number of the samples for all variables in this study were shown in Table 1.

**Table 1:** Mean and standard deviation of job satisfaction and job performance in the pre-test and post-test in the experimental and control groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Stage</th>
<th>Number</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mean</td>
<td>Standard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>deviation</td>
</tr>
<tr>
<td>job satisfaction</td>
<td>experimental</td>
<td>15</td>
<td>91/8</td>
<td>17/68</td>
</tr>
<tr>
<td></td>
<td>control</td>
<td>15</td>
<td>89/16</td>
<td>16/05</td>
</tr>
<tr>
<td>job performance</td>
<td>experimental</td>
<td>15</td>
<td>64/40</td>
<td>7/01</td>
</tr>
<tr>
<td></td>
<td>control</td>
<td>15</td>
<td>66/06</td>
<td>8/29</td>
</tr>
</tbody>
</table>
To regard the equality of variances for variables by default, Levine test is used. Kolmogorov-Smirnov test results are also shown for the normal distribution of scores in the society in Table 2.

Table 2: Lavigne’s test results about equality of scores by default and Kolmogorov- Smirnov test about the normal distribution of scores for job satisfaction and job performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Levine test</th>
<th>Kolmogorov-Smirnov test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>Significance level</td>
</tr>
<tr>
<td>job satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>experimental</td>
<td>15</td>
<td>0/49</td>
<td>0/49</td>
</tr>
<tr>
<td>control</td>
<td>15</td>
<td></td>
<td>36%</td>
</tr>
<tr>
<td>job performance</td>
<td></td>
<td>3/76</td>
<td>0/055</td>
</tr>
<tr>
<td>experimental</td>
<td>15</td>
<td></td>
<td>187%</td>
</tr>
<tr>
<td>control</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As it can be seen in Table 2, the null hypothesis of equal variances for the scores of the two groups is not statistically significant in all the main variables implying that the default equality of variances scores in both experimental and control groups was confirmed. Hence, the assumption of homogeneity of variances in all the main variables was observed and there is the possibility of using analysis of covariance. Also, as presented in table (2), the assumption of zero for the normal distribution of scores on job satisfaction and job performance was confirmed implying that assumption for normal distribution of scores in pre-test and in both experimental and control groups were confirmed. In this study, before data analysis, to study the homogeneity, the regression slopes between covariates (pre-test) and dependent (post-test) in the plots (experimental and control groups) must be equal. According to F values, the interaction for satisfaction and job performance are obtained 1/62 and 1/01, respectively as well as a significant level of 0/174 and 0/298/0 respectively. It implies that it is non-significant. Therefore, the assumption of homogeneity of regression was confirmed.

Table 3: Results of multivariate analysis of covariance (MANCOVA) on the post-test scores of job satisfaction and job performance by controlling the pre-test experimental and control groups

1258
As it can be seen in Table 3, by controlling the pre-test, significant levels of all test indicate that there is a statistically significant difference between employees of control and experimental groups at least one dependent variable (job satisfaction and job performance) \((F = 22/26, p < 0.0001)\). Two one-way analysis of covariance was conducted in MANCOVA in order to realize the different variable between two groups; the results are presented in Table 4. The effect or difference is equal to 0.53, in other words, 53 percent of individual differences in mean scores of job satisfaction and job performance is related to the effect of communication skills training. Statistical power is equal to 1.00; on the other hand, there is the possibility of a Type II error.

**Table 4:** Results of one-way analysis of covariance in the MANCOVA on the post-test scores of job satisfaction and job performance in the experimental and control groups by controlling the pre-test
As it is illustrated in table (4), by controlling the pre-test among employees of control and experimental groups, there is a significant difference in terms of job satisfaction ($F = 18/19, p < 0/0001$). On the other hand, according to the average job satisfaction among employees of experimental group compared to control group, communication skills training increased job satisfaction in an experimental group. The effect or difference is equal to $0/44$; in other words, 44 percent of individual differences in mean scores of job satisfaction is related to the effect of communication skills training. According to the table (4), by controlling the pre-test among employees of control and experimental groups, there is a significant difference in terms of job performance ($F = 17/79, p < 0/0001$). On the other hand, according to the average job performance among employees of experimental group compared to control group, communication skills training increased job performance in an experimental group. The effect or difference is equal to $0/46$; in other words, 44 percent of individual differences in mean scores of job performance are related to the effect of communication skills training.

**Discussion and conclusion**

The results suggested that by controlling the pre-test among employees of control and experimental groups, there is a significant difference in terms of job satisfaction ($F = 18/19, p < 0/0001$). On the other hand, according to the average job satisfaction among employees of experimental group compared to control group, communication skills training increased job satisfaction in an experimental group. The effect or difference is equal to $0/44$; in other words, 44 percent of individual differences in mean scores of job satisfaction is related to the effect of communication skills training. These results confirm the results of previous research in this field (28-33) and explain the results of the investigation. In explaining these results, it can be said that since communication skills training has a positive effect on job satisfaction, it seems
that communication skills training will increase intimacy and provides empathy in the workplace, because a lot of problems both in the workplace and society arise from misunderstanding and lack of proper communication between people; perhaps this misunderstanding leads to tension and friction on the environment and the consequences of this tension are also obviously observed in working relationships of employees and people. Therefore, the courses for communication skills lead to improved quality of communications between people at different levels and communication skills at non-verbal and verbal levels. Since healthy and appropriate relationships in addition to the speech are in need of improvement and proper use of hearing, it may reinforce audio interaction between people and greater appreciation of the demands and desires. Thus, an increased communication skills cause people to work in a more intimate and spiritual setting. The results suggested that by controlling the pre-test among employees of control and experimental groups, there is a significant difference in terms of job performance. On the other hand, according to the average job performance among employees of experimental group compared to control group, communication skills training increased job performance in an experimental group. The effect or difference is equal to 0.46; in other words, 46 percent of individual differences in mean scores of job performance are related to the effect of communication skills training. Also, the results of the study are consistent with the results by Hamid and Dehghanzadeh (31-35). Based on the results, we can say that the performance of employees and consequently, efficiency and organizational effectiveness are completely dependent upon how to meet human needs of employees through maintaining motivation, high morale, and satisfaction. In addition to salary, other important factors such as structure, environment and working conditions, management issues and in particular the nature and design of job are critical in meeting material and psychological needs of employees as well as being effective in the prevention of reduced organizational performance. Job design is related to many human resource management practices such as recruitment and selection, performance evaluation, improvement and maintenance of human resources and can affect such activities. It should be noted that in job designs, technical qualification doesn’t mean doing work, because human factors and differences and psychological - behavioral needs always deal with specialized abilities and provide interactions so that if psychological - behavioral needs compromise with special abilities, the efficiency and effectiveness of behavior are realized; otherwise, conflict and alienation from work and self will emerge. In this case, to achieve the above objectives, jobs would need to be redesigned. Knowing what happens next and what is happening, are
deemed “deep and direct attention to it and refer to the power of collaborative action. Although the nature of the subject matter is simple, mindfulness often appears difficult. It is a kind of regular exercise in which we teach ourselves so that we assure from what occurs around us and our experiences. Among the most important of these challenges and limitations of this study, we can refer to the mental condition of respondents when answering the questionnaire and classroom situations during the course of communication skills. Given the challenges and limitations of this study, it is recommended that this research is conducted with larger scale in other petrochemical companies of the country so that clear results of the effect of communication skills training on job performance and job satisfaction among the employees of petrochemical companies in the country may be achieved. Moreover, it is recommended that the present study to be carried out with other techniques, methods, and instruments of different organizations and research and the results are compared. Also, according to the results of this study, some practical recommendations can be proposed. Given the importance of job satisfaction and job performance, in order to promote the objectives of the organization, it is recommended that by promotion of social and communicational skills and in-service trainings to staff in different departments of petrochemical complex in Bandar Imam, their job satisfaction and job performance will be increased. Besides, through communication and social skills training and its concepts to managers and supervisors of different units in different groups in order to establish an effective bilateral communication, better results might be achieved.
References


