



## AN INVESTIGATION ON EFFECTIVENESS OF THE EDUCATIONAL SHORT-TERM TRAINING COURSES IN IRANIAN OIL COMPANIES

Diana Gandomfeshan <sup>a\*</sup>

<sup>a</sup> *Department of Educational Management, Faculty of Educational Sciences and Psychology, Shahid Beheshti University, IRAN*

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### ABSTRACT

This study investigated the effect of short-term training courses on knowledge, attitude, and performance of middle-class managers in Iran oil companies. Among the total of middle-class managers of the Iran Central areas Oil Companies in cities of Tehran, Shiraz, Mashhad, and Kermanshah, 100 managers were selected as a sample using simple random sampling (number of statistical society is 133 middle-class managers). Using descriptive research method and using a researcher-made questionnaire containing 77 questions in four options (based on the Likert spectrum), the viewpoints of middle-ranking managers regarding the effect of short-term training courses on their knowledge, attitude and performance it was measured. The reliability of knowledge questions, the level of reliability of the attitude and the reliability of the questions of performance were obtained. Data were analyzed using inferential statistics (one-way analysis of variance, one sample t-test, Cronbach's alpha method – for determining the reliability of the questionnaire, multivariate regression analysis, and Pearson correlation coefficient). The results of this research that have been carried out using a questionnaire, show that short-term training courses of middle-class managers is effective in increasing knowledge, improving positive attitudes in managers, their performance and among the variables studied, the variable of attitude has an effect on improving the performance of middle-class managers.

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## 1. INTRODUCTION

The fact is that in today's world what is the most important are human resources. So that manpower training can be used as one of the major pillars of the development of a country (Bazazjazyeri, 2011). It can be said in the definition of training that is a planned process to change attitudes, knowledge and or personal skills through learning in order to achieve effective performance in an activity or a range of activities (Armstrong, 2003). In other words, the training is a process in

order to change employees' behavior at the time of work through the application of the principles of learning, that the behavioral change is usually concentrated on knowledge, information, skills, activities, attitudes or values (Anderson, 1993). Paying attention to manpower training and development of talents and creativities of individuals is the characteristics of today's societies (Saadat, 2016). In a society that is rapidly changing, manpower training is not only desirable, but also an activity that any organization should consider resources for that as it can has always efficient and informed human resources at its disposal (Dulan, *et al.*, 2001). Large investments in education confirm the particular attention to the effect of education on human resources development (A group of Management Professors, 2001). Due to the rapid technological changes, that it generally changes the nature of some methods of doing work for some jobs, job training is vital for organizational staff (Parhizgar, 2003). Paying attention to the role of education in relation to the use of material resources determines human resources in any organization are the base of work (Asgarian, 1999). Training of human resources is one of the safest and the most basic ways of organizational improvement (Mirkamali, 2008). Training and improvement of employees is a strategic action that at the individual level makes a valuable person, at the organizational level makes organizational improvement and development and at the national and even transnational level lead to Increasing productivity and the next results (Abbaszadegan and Torkzadeh, 2009). An approved training program should be designed while meeting organizational goals; it can also be responsible for individual goals of the staff too (Jazani, 2015). Investment in human resource training is the best guarantee and investment that losses will not be in it (Taheri, 2009). Managers have found that investing for training causes multiply their returns (Dadrasyeganeh, 2007). Since the organization life and its continuation depends largely on the knowledge and skills of its employees, more skilled and more educated people will have a more effective role in the efficiency and productivity of the organization (Ebili, 2004). John F. Mee in-service training definition says: "In-service training is systematic and continuous improvement of employees in terms of knowledge, skills, and behaviors that help their welfare and the organization of their service" (Fathi Vajargah, 2015). In the other words, In-service training is the development system of patterns, skills, knowledge and personal attitudes and its purpose is that individual is able to do special performance of his work on a certain level of ability. In-service training can be formal or informal (Berube, *et al.*, 2001). It specifically, in particular, includes training and exercises that focuses on achieving a certain level of ability or operational efficiency (Tight, 2004). Generally, in-service training in an organization forms further in support of main needs such as skills and knowledge of employees in the workplace (Nickols, 2000). Although managers can be found in all parts of the organization, but recognizing that they are at different levels of an organization is very important (Beheshtian and Abolhasani, 2008). Each manager needs to the degree of managerial skills according to the type of work, the organization level and circumstances available. The most of scholars emphasize on the following three levels of management (Rezaian, 2006): 1- Operational managers: These managers spend most of their time with subordinates to resolve future issues and some of it with colleagues and with superiors or people outside the organization (Rezaian, 2014). 2- Middle-class managers: Middle-class managers are between senior and operational managers (Robbins, 2015). These managers have the highest number in most organizations that supervise front- line executives. They are responsible for the implementation of policies and developed programs by senior managers of organization and supervision, coordination and control activities of

lower-level managers (Fakhimi, 2013). In order to increase effectiveness, these managers are responsible to evaluate; does the organization pursue goals that appropriate or not (Entesari, 2014). 3- Superior managers: These managers are a relatively small group of managers who control and manage all affairs of the organization, set up the goals and strategies of organization (Bakhtiar, 2015).

Regardless of the management levels, the role of oil industry in economic development and its status as one of the most important options for sustainable development based on the oil and gas industry, has a major responsibility for the National Iranian Oil Company. Along with the development of oil industry plans, it is somewhat planned to provide, equip and train human resources (Mirnejad, *et al.*, 2010). The maintenance of the optimum oil and gas production capacity requires the operation of the facility and the efficient utilization of facilities and most importantly of all efficient manpower (Oil Company Public Relations, 2011), and all of them depend on the correct, effective, and proper of human resources training in all areas and in this regard, management education is of particular importance. Management requires qualitative evolution and guidance, therefore, management education as a thoughtful and constructive part and as well as an important component of the organization's human resources is of paramount importance (Jahanian, 2004). The correct management requires considerable skill and time and patience that should be applied by managers, and part of it is related to management and staff training, training and educational planning and implementation of training courses at all levels of manpower, execute methods and perform specific duties of each person (Maghi and Tehyer, 2009). The issue of education in oil industry has long been considered. The policy of Iran's oil company is based on the fact that the situation will reach such a degree of growth and perfection that for each job and position (up to a specified level) a minimum preliminary training and previous experience and a minimum of training and experience and some general education that has been agreed upon to be determined (Kazerooni, 2005). Large sums are spent on human resources training in oil industry. If the training is not be appropriate and fails to achieve the course objectives, it will be an additional charge imposed on the company that could be spent elsewhere. Training courses can improve the level of knowledge, attitude, and performance of managers and staff, so the need for planning for these courses is taken for granted, but without examining the effectiveness of training courses, it is not possible to ensure the usefulness of training courses.

## 2. HYPOTHESES AND QUESTION OF RESEARCH

The research hypotheses are as follows:

- 1- Short-term training courses for middle-class managers causes to increase the knowledge level of managers.
- 2- Short-term training courses for middle-class managers causes to increase the positive attitudes in managers.
- 3- Short-term training courses for middle-class managers causes to improve the performance of managers.

The research question is: Among the variables of knowledge, attitude, gender, Level of

education, management experience and work experience, which one has the most effect on improving the performance of middle-class managers?

### 3. RESEARCH METHOD

The statistical population of this study is all the middle-class managers of the Iran Central areas Oil Company who in training courses that is held by the organization have participated. The sampling method used in this research is simple random sampling. The sample size according to Morgan's table was considered 100 people. A questionnaire was used to collect data, consisting four sections:

Part 1: Includes demographic data of the samples (gender, level of education, management experience, and work experience)

Part 2: Includes questions related to the effectiveness of short-term educational training courses on the level of knowledge of middle-class managers

Part 3: Includes questions related to the effectiveness of short-term educational training on the attitude of middle-class managers

Part 4: Includes questions related to the effectiveness of short-term educational training on the performance level of middle-class managers

The questions were set after the preliminary tests and obtaining validity and reliability. In this questionnaire, the 4-point Likert scale has been used. In this research, data was analysed using SPSS® software.

### 4. FINDINGS AND DISCUSSION

#### 4.1 DESCRIPTION OF DEMOGRAPHIC CHARACTERISTIC

The study of descriptive data related to demographic characteristics of the sample indicate the most number of sample are men with 95.5%, 59.7% of middle-class managers have bachelor's degrees, 64.9 % of middle-class managers have up to 10 years of management experience and 39.1% have work experience between 11 and 20 years.

#### 4.2 HYPOTHESES ANALYSIS AND RESEARCH QUESTION

Hypothesis 1- To examine the first hypothesis that "Short-term training courses for middle-class managers causes to increase the knowledge level of managers.", first, this hypothesis is written as a statistical hypothesis:

$$H_0: \bar{X} - \mu = 0 \quad (1)$$

$$H_1: \bar{X} - \mu \neq 0$$

$\bar{X}$  = Mean level of knowledge of participating middle- class managers in short-term training courses in the sample group

$\mu$  = Mean level of knowledge of middle- class managers in society

To test the first hypothesis, one-sample t-test was used which results and data analyses are provided in Table 1.

Table 1: one-sample t-test mean of managers' knowledge participating in training courses

$\bar{X}$	C	S	$S_{\bar{x}}$	T	Df	Sig
3.792	2.33	2.93	0.333	4.378	76	0

According to the data presented in Table (1), since the t obtained at the 99% confidence level is significant, so null hypothesis is rejected and contrary hypothesis is accepted that means short-term training courses for middle-class managers have increased their knowledge level.

Hypothesis 2- To examine the first hypothesis that "Short-term training courses for middle-class managers causes to increase the positive attitudes in managers.", first, this hypothesis is written as a statistical hypothesis:

$$H_0: \bar{X} - \mu = 0 \quad (2)$$

$$H_1: \bar{X} - \mu \neq 0$$

$\bar{X}$  = Mean level of attitude of participating middle- class managers in short-term training courses in the sample group

$\mu$  = Mean level of attitude of middle- class managers in society

To test the second hypothesis, one-sample t-test was used which results and data analyses are provided in Table 2 below:

Table 2: one-sample t-test mean of managers' attitude participating in training courses

$\bar{X}$	C	S	$S_{\bar{x}}$	T	Df	Sig
25.529	110	20.741	2.904	5.347	50	0.000

According to the data presented in Table (2), since the t obtained at the 99% confidence level is significant, so null hypothesis is rejected and contrary hypothesis is accepted that means short-term training courses for middle-class managers have improved positive attitudes in managers.

Hypothesis 3- To examine the first hypothesis that "Short-term training courses for middle-class managers causes to improve the performance of managers.", first, this hypothesis is written as a statistical hypothesis:

$$H_0: \bar{X} - \mu = 0 \quad (3)$$

$$H_1: \bar{X} - \mu \neq 0$$

$\bar{X}$  = Mean level of performance of participating middle- class managers in short-term training courses in the sample group

$\mu$  = Mean level of performance of middle- class managers in society

To test the third hypothesis, one-sample t-test was used which results and data analyses are provided in Table 3.

**Table 3:** One-sample t-test mean of managers' performance participating in training courses

$\bar{X}$	C	S	$S_{\bar{x}}$	T	Df	Sig
75.228	62.5	9.163	1.213	10.487	56	0.000

According to the data presented in Table (3), since the t obtained at the 99% confidence level is significant, so null hypothesis is rejected and contrary hypothesis is accepted that is short-term training courses for middle-class managers have improved their performance.

To investigate the research question that "Among the variables of knowledge, attitude, gender, Level of education, management experience and work experience, which one has the most effect on improving the performance of middle-class managers?", statistical analysis of multiple regression analysis has been used:

Y= Level of performance of managers participating in short-term training courses

Y<sub>1</sub>= Level of knowledge of participating managers in short-term training courses

Y<sub>2</sub>= Level of attitude of participating managers in short-term training courses

Y<sub>3</sub>= Level of education of participating managers in short-term training courses

Y<sub>4</sub>= Management experience of participating managers in short-term training courses

Y<sub>5</sub>= Work experience of participating managers in short-term training courses

Among the predictor variables, Y<sub>2</sub> has the highest auto-correlation with Y: r<sub>yy</sub> = 0.808. The rate of variations explained of the criterion variable by Y<sub>2</sub> is 64.2%. The statistical method of one-way ANOVA was used to determine the significance of this rate of variations, the results of which are shown in Table 4.

**Table 4:** ANOVA to determine significance of the coefficient of determination

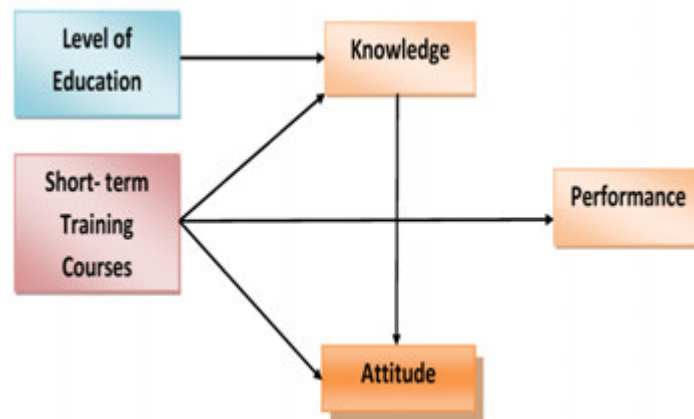
Sources of Change	Sum of squares	Degrees of freedom	Mean Square	F	Sig
Regression	1451.506	1	1451.506	56.592	0
The remaining	769.463	30	25.649		
Total	2220.969	31			

According to the Table 4, since F= 56.592 in the level of 99% confidence is significant, so it can be seen that the rate of variations explained of the criterion variable by Y<sub>2</sub> is significant. Therefore, the variations equation at this stage is as follows:

$$Y = 28/861 + 0/368 Y_2 \quad (4)$$

Considering that the angle coefficient of the other variables is not significant at 95% confidence level, therefore, the calculations will be completed at this stage and as a result it can be seen that only Y<sub>2</sub> is the predictor variable of the criterion variable, that is, only attitude can be effective in improving the performance of middle-class managers.





**Figure 1:** Research result showing the link between variables.

### 4.3 CONCLUSION

The study found the short-term training courses for middle-level managers of the oil companies of central parts of Iran have had a direct positive effectiveness on their knowledge. Findings show knowledge directly affects the attitudes of managers; knowledge plays the role of a Mediating variable between the educational course and attitude, and the most important effect can have on the attitude of managers, which means that if the educational courses helps to raise the level of knowledge of middle-class managers, certainly it also affects on Improve managers' attitude. Attitude of managers can change through the knowledge provided for them in the educational training course, and this point is considerable. As mentioned above, attitudes affect directly on performance too, so knowledge affects indirectly the performance of managers by influencing on attitudes. The overall result of the study can be summarized in Figure 1 which confirms the study results.

Whatever the evaluation of the knowledge provided in the training courses of the organization has higher and more objective criteria, one can expect that the level of attitude of managers improve too, and also this directly affects the improvement of management performance. In other words, here the attitude plays the role of a mediating variable between knowledge and performance and has the most effect on the performance of middle-class managers. This means that if the training course can directly increase the level of knowledge of managers, this can be expected it can have a positive effect on the attitudes of managers and thus on their type of performance indirectly.

The relationship between knowledge and attitude plays a role of a mediating variable between training course and performance and can lead directly to improving the performance of managers by organizing and holding the proper training course. Research results indicate that the level of education affects on the relationship between the training course and knowledge directly, which means that middle-class managers improve their level of management knowledge by participating in the training courses of the organization consequently and has a positive effect on their attitude. So, the relationship between training course and knowledge plays the role of a mediating variable (between education level and attitude), and affects on the improvement of managers' attitudes directly.

The important of the study is that shows attitude is the variable and important determinant factor

in planning the training courses in the Iranian oil company; according to the findings of the research, among all the variables studied in this study, managers' attitude have has the relationship and direct effect on the performance of middle-class managers. In fact, by emphasizing managers' attitudes and its positive change and improving managers' attitudes (along with a set of other factors), we can be sure that the level of performance of managers in the desired direction improve; a positive attitude can be a determining factor for a desirable performance, and this finding is considered in the planning of the organization's training courses.

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**Dr. Diana Gandomfeshan** earned her Ph.D in Business Administration, Human Recourses Management and Organizational Behaviour from Payame Noor University (PNU), Iran. Her master's degree was in Adult Education from Department of Educational Sciences and Psychology Shahid Beheshti University, Iran. This research was done in Shahid Beheshti University with cooperation of Iran Central Areas Oil Companies.