

Examining the Impact of In-Service Training on Art's Staff Efficiency based on Kirk-Patrick Model

Anahita Yosefi, Fereshteh Kordestani

Department of Educational Administration, Central Branch, Islamic Azad University (IAU),
Tehran, Iran

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Abstract

Evaluation of the course effectiveness is one of the most important priorities & responsibilities of training management at all levels and different expertise courses in each organization. Human resource development cannot be made only by holding expertise courses, but what is leading to skilled human resources development is effectiveness of courses. The main purpose of this research is evaluation of in-service training efficiency on University of Art's staff based on Kirk-Patrick Model which have been studied in seven components: staff's knowledge, skills and abilities, order, the ability to use learning tool, productivity and efficiency principles and rules of the workplace and ultimately facilitate the tasks. This research project is descriptive and it is a survey. The statistic community is all staffs of the University of Art (400 seats) and 195 of them have been selected as sufficient sample size using stage –random sample method. The research tools is a questionnaire of 32 questions, grouped into reaction, learning and behavior (behavioral change) which is measured on a Multiple-choice Likert and the reliability coefficient is 95%. In order to analyze the data from the questionnaire, one sample t-test model were used. Finally, data analysis has shown that the impact of the in-service training on staffs' efficiency based on Kirk-Patrick model below average and hasn't high effect.

Keywords: In-Service training, Efficiency, Evaluation of Reaction, Evaluation of Learning, Evaluation of Behavior (Behavioral Change)

Introduction

Today, almost half of the jobs we see in many countries have not existed in the last fifty years. Multiple changes in professional activity during a working life are becoming more common among the people. The probability that a young person learns a skill and continues to use it about thirty years without a fundamental change is impossible or very weak. In a society that is rapidly changing, training of employees is not only desirable but also an activity that each organization should dedicate sources for it to always have efficient and aware human resources (Dolan, 1999).

The human resource is the most valuable resource of organization for flourishing the talents and achieving consistently to high performance. Facing with the pressures of modern competitive environment, the leading employers try to flourish fully the talent of their human resources. The feedback on these efforts can be seen in slogans such as "human resource is

the most important asset of organization" and "our employees are the most important distinguishing feature of our organization from other organizations". Such confessions are repeatedly stated in newspapers, image ads, annual reports, corporate training materials, lectures of executives, and organizational newsletters (Yavitz, 1998).

All these show the existence of quite special perception and cognition. If an organization wants to achieve its goals even by having a clear mission, appropriate strategies, effective organizational structures, and appropriate job design, it will need committed and skillful workforce. Nowadays, the global competitive pressures and social changes have led to a revolution in human resource management which overshadows a variety of organizations. The important point is that the developments resulting from this revolution continues and really affects the status quo (Perry, 1991).

Paying attention to organization's employees, as the largest and most important assets, is a phenomenon that has developed in the past two decades. Today, the importance of staff training has been increased because of information development and growing complexity of business. Toffler argues that training is the most important activity and method to deal with the radical changes in the future and accepting the changes. The sophisticated and effective training helps people to achieve enough ability in their career and work more effectively. It is obvious that the if people have more knowledge and training about their work, their learning process will be better and they will provide useful ideas for improving the work (Alhosseini, 2000).

Therefore, each organization is required to prepare the background for knowledge development of their staff and provide proper educational fields. For this purpose, the organization can hold justification classes and sessions for newly hired employees to make them familiar with the working process. The knowledge, competencies, and information of staff can be in the in-service period by regular continuing education programs and specialized training courses. Therefore, employees may upgrade their knowledge and skills by combining work experience and information. In this context, it is important to pay attention to staff training for enhancing the employees' competency in the organizations. Given the importance of learning in organizations, therefore, this study aims to investigate the necessity of educating the staff, especially staff in the University of Art, and the need to evaluate the effectiveness of educational programs in the organizations.

Most of the large and small organizations prepare formal plans for evaluating their employees. This is because individuals need to understand their situation and performance after entering the organization in order to achieve the objectives and progress in their work. Such awareness makes them aware of their performance and behaviors' strengths and weaknesses and provides necessary condition for effective efforts. Organizations should also be aware of the effectiveness of their staff. Therefore, they can improve their human resource situation, increase their volume of products and services, and create positive change in their processes.

The important point is that merely education and training courses cannot help the organization to achieve its goals. Training should be conducted according to scientific principles and methods to satisfy the needs (Abbasian, 2006).

Therefore, it is necessary to identify and resolve the weaknesses and gaps in these courses to not waste resources of organization. One reason for paying less attention to this issue is that the evaluation of training programs has not been considered accurately. The failure to perform sufficient and proper evaluation contradicts the philosophy of continuous refinement and improvement of the educational programs. It is only education that can

identify weaknesses and deficiencies and improve them (Fathi , 2008,). If the educational programs are not evaluated, it is probable to confirm every staff training course as effective program (Decenro & Robinz, 2002).

The performance evaluation is a tool that helps organizations and employees to meet these needs. If the design will be good and proper method will be used for its implementation, it will be an appropriate means to achieve individual and organizational goals and a means for effective and efficient use of the organization's human resources (Haghigh & Ranayi, 1997).

Thus, a training program can be valuable if offer observable, reliable, and valid evidence on the impact of training on participants' performance improvement. This is an important aspect of training and evaluation which is commonly referred to as training effectiveness or evaluating the effectiveness of training (Qahremani, 2001).

On the one hand, in fact, evaluating the effectiveness of educational programs provides an opportunity for managers and staff to obtain clearer picture of the advantages and disadvantages of educational activities. On the other hand, it enables the education planners and staff to get aware of the positive and negative aspects and try to make effective the training activities of organization.

Since several short-term training courses are held in each college annually and so far no research has been done on the effectiveness of these courses, the researcher wants to answer to these fundamental questions: how much effective and productive are the short-term training courses held at the University of Arts? Who much the training given to staff at the University of Art has led to expected learning or effectiveness? Whether participants had positive reactions to the training? Whether the expected changes in behavior have occurred? What strategies could be used primarily to improve the effectiveness of the training program?

Methodology

The main purpose of this research is evaluation of in-service training efficiency on University of Art's staffs based on Kirk-Patrick Model. This research project is descriptive and it is a survey. The population (N=400) consists of all staffs of the University of Art who have participated in training courses organized by this centre and received certificate at the end of the course. Using stage –random sampling method, 195 cases were selected as sample. Data were collected using questionnaire. Totally, 200 questionnaires were distributed and 195 items were received by the researcher. The Cronbach Alpha method was used to calculate the reliability coefficient (75%). So it can be said that data was not obtained by chance, rather they are the outcome of tested variable.

Finally, after determining validity and reliability, the final questionnaire was developed and distributed among the study population. Both descriptive (statistical tables for reporting the mean, standard deviation, skewness, elongation, and minimum and maximum scores) and inferential statistics (one sample t test) were used to analyze the data. The theoretical means for each variable was calculated based on the range of possible scores of same variable (the mid-point of scores range as the theoretical mean).

Findings

The first sub-question:

Whether participation of employees in training courses of Tehran Art University has a positive impact on their knowledge and information level?

The one-sample t test was used to investigate this question. In this variable, the possible range of scores is from 9 to 36. The 22.5 (the midpoint of above interval) is chosen as theoretical mean.

Table 1.

T Test (Significant Difference Between Increased Knowledge Level And Mean Value)

Mean		Mean difference	Degrees of freedom	t value	Significance level
Empirical	21.02				
Theoretical	22.5	-1.48	194	-2.48	0.01

According to participants in the study, the mean of training courses impact on staff's knowledge is 21.02; this is less than theoretical mean, an amount of 1.48. The obtained t value (-2.48) is significant at $P \leq 0.01$. With 99% confidence, therefore, it can be said that according to participants in this research, participation in training courses could not have a positive effect on increasing the knowledge of staff.

The second sub-question:

Whether participation of employees in training courses of Tehran Art University has a positive impact on their Skills and abilities level?

The one-sample t test was used to investigate this question. In this variable, the possible range of scores is from 4 to 16. The 10 (the midpoint of above interval) is chosen as theoretical mean.

Table 2.

T Test (Significant Difference Between Increased Skill Level And Mean Value)

Mean		Mean difference	Degrees of freedom	t value	Significance level
Empirical	9.12				
Theoretical	10	-0.88	194	-3.28	0.001

According to participants in the study, the mean of training courses impact on staff's skills and abilities is 9.12; this is less than theoretical mean, an amount of 0.88. The obtained t value (-3.28) is significant at $P \leq 0.01$. With 99% confidence, therefore, it can be said that according to participants in this research, participation in training courses could not have a positive effect on increasing the skills and abilities of staff.

The third sub-question:

Whether participation of employees in training courses of Tehran Art University has a positive impact on their order, discipline, and morale level?

The one-sample t test was used to investigate this question. In this variable, the possible range of scores is from 4 to 16. The 10 (the midpoint of above interval) is chosen as theoretical mean.

Table 3.

T Test (Significant Difference Between Increased Order, Discipline, And Morale Level And Mean Value)

Mean		Mean difference	Degrees of freedom	t value	Significance level
Empirical	9.42				
Theoretical	10	-0.58	194	-2.04	0.04

According to participants in the study, the mean of training courses impact on staff's order, discipline, and moral is 9.42; this is less than theoretical mean, an amount of 0.58. The obtained t value (-2.04) is significant at $P \leq 0.05$. With 99% confidence, therefore, it can be said that according to participants in this research, participation in training courses could not have a positive effect on increasing the order, discipline, and morale of staff.

The fourth sub-question:

Whether participation of employees in training courses of Tehran Art University has a positive impact on improving the efficient use of educational tools?

The one-sample t test was used to investigate this question. In this variable, the possible range of scores is from 4 to 16. The 10 (the midpoint of above interval) is chosen as theoretical mean.

Table 4.

T Test (Significant Difference Between Increased Improvement Level Of Efficient Use Of Educational Tools And Mean Value)

Mean		Mean difference	Degrees of freedom	t value	Significance level
Empirical	9.20				
Theoretical	10	-0.80	194	-2.68	0.009

According to participants in the study, the mean of training courses impact on increased improvement level of efficient use of educational tools is 9.20; this is less than theoretical mean, an amount of 0.80. The obtained t value (-2.68) is significant at $P \leq 0.01$. With 99% confidence, therefore, it can be said that according to participants in this research, participation in training courses could not have a positive effect on increasing the improvement level of efficient use of educational tools.

The fifth sub-question:

Whether participation of employees in training courses of Tehran Art University has a positive impact on their operation and work efficiency level?

The one-sample t test was used to investigate this question. In this variable, the possible range of scores is from 5 to 20. The 12.5 (the midpoint of above interval) is chosen as theoretical mean.

Table 5.

T Test (Significant Difference Between Increased Operation And Work Efficiency Level And Mean Value)

Mean		Mean difference	Degrees of freedom	t value	Significance level
Empirical	11.31				
Theoretical	12.5	-1.18	194	-3.35	0.001

According to participants in the study, the mean of training courses impact on staff's operation and work efficiency is 11.31; this is less than theoretical mean, an amount of 1.18. The obtained t value (-3.35) is significant at $P \leq 0.01$. With 99% confidence, therefore, it can be said that according to participants in this research, participation in training courses could not have a positive effect on increasing the operation and work efficiency of staff.

The sixth sub-question:

Whether participation of employees in training courses of Tehran Art University has a positive impact on increasing their obedience from workplace principles, guidelines, and regulations? The one-sample t test was used to investigate this question. In this variable, the possible range of scores is from 5 to 8. The 5 (the midpoint of above interval) is chosen as theoretical mean.

Table 6.

T Test (Significant Difference Between Increased Obedience of Workplace Principles And Regulations And Mean Value)

Mean		Mean difference	Degrees of freedom	t value	Significance level
Empirical	4.46				
Theoretical	5	-0.54	194	-3.44	0.001

According to participants in the study, the mean of training courses impact on staff's obedience from workplace principles, guidelines, and regulations is 4.46; this is less than theoretical mean, an amount of 0.54. The obtained t value (-3.44) is significant at $P \leq 0.01$. With 99% confidence, therefore, it can be said that according to participants in this research, participation in training courses could not have a positive effect on increasing the staff's obedience from workplace principles, guidelines, and regulations.

The seventh sub-question:

Whether participation of employees in training courses of Tehran Art University has a positive impact on facilitating the conduction of complex tasks?

The one-sample t test was used to investigate this question. In this variable, the possible range of scores is from 4 to 16. The 10 (the midpoint of above interval) is chosen as theoretical mean.

Table 7.

T Test (Significant Difference Between Facilitation of Conducting Complex Tasks And Mean Value)

Mean		Mean difference	Degrees of freedom	t value	Significance level
Empirical	9.13				
Theoretical	10	-0.87	194	3.08	0.003

According to participants in the study, the mean of training courses impact on facilitation of conducting complex tasks by employees is 9.13; this is less than theoretical mean, an amount of 0.87. The obtained t value (-3.08) is significant at $P \leq 0.01$. With 99% confidence, therefore, it can be said that according to participants in this research, participation in training courses could not have a positive effect on increasing the facilitation of conducting complex tasks.

Discussion and Conclusion

Regarding the effectiveness of in-service training in improving staff performance, 65.6% of participants in this study stated that their performance improvement have been in low and very low levels and 34.4% evaluated the effectiveness of training in improving employees' job performance as high or very high levels. The average obtained in this variable is equal to 73.05; this is in low level in different levels of this variable.

Given that job performance in the Kirk- patrick model has been studied in seven components including knowledge and information, skill and ability, discipline and cooperation, efficient use of educational tools, increased operation and work efficiency, familiarity with the principles and guidelines, and facilitation of complex task, the summary of descriptive results of these seven components is as follows:

In the component of effectiveness of training in increasing knowledge and information, 57.9% of participants in this study stated that increasing their information and knowledge have been in low and very low levels and 42.1% evaluated the effectiveness of training in improving employees' information and knowledge as high or very high levels. The average obtained in this variable is equal to 21.02; this is in low level in different levels of this variable.

In the component of effectiveness of training in increasing skill and ability, 61.5% of participants in this study stated that increasing their skill and ability have been in low and very low levels and 38.5% evaluated the effectiveness of training in improving employees' skill and ability as high or very high levels. The average obtained in this variable is equal to 9.12; this is in low level in different levels of this variable.

In the component of effectiveness of training in increasing order, discipline, and morale level, 55.9% of participants in this study stated that increasing their order, discipline, and morale level have been in low and very low levels and 44.1% evaluated the effectiveness of training in improving employees' order, discipline, and morale level as high or very high levels. The average obtained in this variable is equal to 9.42; this is in low level in different levels of this variable.

In the component of effectiveness of training in increasing efficient use of educational tools, 56.4% of participants in this study stated that increasing their efficient use of educational tools have been in low and very low levels and 43.7% evaluated the effectiveness of training in improving employees' efficient use of educational tools as high or very high levels. The

average obtained in this variable is equal to 9.20; this is in low level in different levels of this variable.

In the component of effectiveness of training in increasing operation and work efficiency level, 64.1% of participants in this study stated that increasing their operation and work efficiency level have been in low and very low levels and 35.9% evaluated the effectiveness of training in improving employees' operation and work efficiency level as high or very high levels. The average obtained in this variable is equal to 11.31; this is in low level in different levels of this variable.

In the component of effectiveness of training in increasing obedience from workplace principles, guidelines, and regulations, 75.9% of participants in this study stated that increasing their obedience from workplace principles, guidelines, and regulations have been in low and very low levels and 24.1% evaluated the effectiveness of training in improving employees' obedience from workplace principles, guidelines, and regulations as high or very high levels. The average obtained in this variable is equal to 4.64; this is in low level in different levels of this variable.

In the component of effectiveness of training in facilitating the conduction of complex tasks, 61% of participants in this study stated that facilitating the conduction of complex tasks have been in low and very low levels and 39% evaluated the effectiveness of training in facilitating the conduction of complex tasks as high or very high levels. The average obtained in this variable is equal to 9.13; this is in low level in different levels of this variable.

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