



Measuring on-the-Job Training Courses Effectiveness and Calculating Its Return on Investment Rate Case Study: Saipa Malleabel Company

Mohammad Reza Babaei¹ and Bahman Mansour Hosseini²

¹Department of Industrial Management, College of Management and Accounting, Yadegar - e- Imam Khomeini (RAH) - Shahre-Rey Branch, Islamic Azad University, Tehran, Iran.

²Executive Management, Management College, Islamic Azad University of Arak, Arak, Iran.

ARTICLE INFO

Article history:

Received: 8 June 2015;

Received in revised form:

15 July 2015;

Accepted: 27 July 2015;

Keywords

Effectiveness,
On-the-job training,
Cost,
Return on investment rate.

ABSTRACT

In this study, we aim to examine the employee's on-the-job training courses effectiveness in returning the organizational profit. The statistical sample volume, the entire 40 people of the production line operators in the SAIPA Malibel Company who presented in this course, was included. The sampling approach, head count according to scientific principles, was performed. In line with this research basic goal, the findings of the research were achieved in order to provide the necessary feedbacks on the same systems and industries. Hence, the statistical analysis was done not only to answer the defined questions, but also to generalize the findings and data on the wider statistical society and/or other industries with the similar function, the analysis in which we enjoyed the statistical approach with the confidence coefficient of 95%. This research findings were measured using the questionnaire tools examining the learners satisfaction of the course and the reliability of the questionnaire was calculated using approach of Cronbach's alpha and the statistical software for the social sciences and also the coefficient 0.783 was obtained. Tests, learning and the learners' behavioral change were performed based on pair t-test. The study results showed the effectiveness of the employees' course with the return on investment rate of 78.71.

© 2015 Elixir All rights reserved.

Introduction

Today world, full of change and evolution, passes with innovation through technology and economy as well as change in production or industry. And scientifically; many cultural, social, technological, economic and political pressures have combined to compel the organizations having special attention to the basic potential and general attention to the on-the-job trainings of the human force. Importance and necessity of performing on-the-job training in the organization contain the great investment and spending the active human forces' service time. Measuring the training effects on organizations contributes to decision making, achieving the organizational goals, fulfilling the organization needs, analyzing expense, economical training, return profit amount result from training, and the training plans improvement. It is very important for managers to be informed of the training courses effectiveness and their return (Poursadeq, 2005). Training evaluation creates the feedback on which we can find whether given trainings for achieving defined goals have been effective or not (Abbasian Abdolhossein, 2005). Today managers want to observe the monetary values of performed training plans through the organization, so that it will be proved that these training plans are in accordance with the profitable organizational processes and the training budget can be figured as investment on the human forces and even can be considered in one organization balance sheet. Any carelessness and inattention through evaluation process of training courses will cause the employees consider the training as a fancy activity or attempt to use its profits (EBILI, 1993). Exact determination of one training courses effects and results on participants and subtle ascertainment of their performance manner in returning to their own workplace in the organization, are complicated and

difficult processes which are based on some people's mental justifications who endeavor much to prepare and perform one apparently successful training course but care less about this training course practical effects and results (Saatchi, 1989). In this study, it has been tried to answer a question: "what are the SAIPA Malleabel Company employees' on-the-job training courses effects on return on investment rate?" we can never claim that the training is in itself beneficial in the organizations, unless the provided trainings would be evaluated (Farhadi, 2005).

Research Literature

The logical reason for calculating the return on investment is that it is not only a strategic estimate, but also a basic evaluation on operation level. Any improvement in the return on investment requires training and performance development in changing the activity – based process into result – based process and this change is observable from beginning to the end of the process. In some cases, the change has been occurred because the pioneer Human Resources Training and Development departments have realized the return on investment need and have been decided to develop in this field (Khorasani, 2012). Investment on the training, knowledge level promotion, and the employee attitude and skill include the personal and organizational advantages. The most important personal advantages are higher income and job situations versus lack of training and the most important social and organizational advantages are promotion of the labor productivity and the organizational profit (Fatima, 2009). The training concept includes knowledge, attitudes, and skills transfer from one person or group to other person or group in order to create

changes through their cognitive, attitude, skill structure (Sadri, 2004).

The training is all of efforts and endeavors the organization do to promote the level of knowledge as well as technical, professional, career skills; to create proper behavior in the employees of one organization; and to prepare them for doing tasks and accepting their own career responsibilities (Abtahi, 2004). The training course of the Mines and Industries Ministry employees has led to their job promotion, loss decrease, and professional skills (Reza Zadeh, 1998). The training is a set of targeted, pre-mediated, and designed activities which promote the knowledge, skills, and attitudes levels relating the employees' today and future job performance in order to increase both organization and individual's welfare and effectiveness (abbas Zadegan and Torkzadeh, 2000). Accordance with the training aim, the employees should prevail emphasized knowledge, skill, and behavior of the training plans and apply them through their own daily activities (Neo, 2002). Given the evaluation concept of training, the first definition of evaluation has been referred to Ralf Tyler. He considers evaluation as a tool for determining the amount of the plan success to achieve desired training goals. According to "Deming's" view, the evaluation is to answer the question, "what do you want to know about the training?" the training evaluation is to have attention to essence part of the training and provide the evidences for the organization cost and profit and its goal is justifying quality and value of the plan and identify the training interest (Foxon, 1991). The effectiveness is to do the task correctly during proper time with the desired quality (tangent, 2005). The research (Pikors and Mires, 2009) about the employees training role resulted that the training decreases good training, job dissatisfaction, and duplication very much and helps the employees to work with all of their own capacity. In his M.A. thesis as "the evaluation of the employees training courses effectiveness", Saed Panah, 2007 concluded that the trainings have the main role in the employees' organizational behavior changes. Also Hosseini (2008) in his research as "examining the effectiveness of employees' short term training courses" found that the above mentioned trainings have caused the employees' job performance effectiveness.

One can never claim that the trainings are in themselves beneficial, unless the provided trainings would be evaluated (Farhadi, 2005). Evaluating the training is the process of interpreting the results by measuring information to judge the training total goal or the participants' success degree during the training courses. Tailor (1942) declared the evaluation as determining whether the plan goal has been realized regarding the actual results against expected results. Totally, the training evaluation is a regular process for collecting the data which help the managers to make useful and valuable decisions about the training plan. Sobhanolahi and Karani (2000) in the study as "examining the training plans effectiveness on Abfa employees' performance" concluded that the training plans have had an important role and a positive effect. Teresi and Teo (1995) believe that the training plans will be successful when the information from evaluating the plan shows that:

- Needs regarding time, individual, or beneficiaries have been fulfilled,
- The best values have been achieved, and
- The skill promotion and the positive results achievement have been obtained.

Evaluating security and hygiene trainings based on the process of making employees capable, Lipin (2001) has stated

that short term trainings cause some changes for maintaining the security and hygiene of the job environment and the employees and similarly this makes people capable of doing their tasks. All above mentioned studies have emphasized the importance and necessity of the on-the-job training and its benefits.

Kirk Patrick states three reasons for evaluating the training:

1. To justify essence reasons of the training unit by showing its importance and role for realizing the organization goals and missions,
2. To make decision on the training courses continuation,
3. The training promotion.

Peter Droker, one of the clear – sighted thinkers in management science, has defined effectiveness as doing correctly. If we define the goals as desired situation of the organization, the organizational effectiveness is the extent to which the organization has achieved given goals (Richard El Deft, 1998). In the training process, the effectiveness is the degree of availability and attainment of determined goals for holding special courses with participants' defined condition and its performing manner, so that can inform the organization from usefulness or lack of usefulness of the course, qualitatively and/or quantitatively (Albasalt Khorasani and Reza Mahdi, 2006). Based on above definition, we can say that effectiveness is doing correctly during proper time with the desired quality. The training evaluation is the process of collecting needed data for determining the training effectiveness and the effectiveness has some merits which the organization and learners receive. The processes which are used commonly for evaluating the training, originate from the systematic process of the training design. The evaluation processes are classified based on the methodologies of designing the training system. That is the system which were introduced with Ganieh and Brigze (1974) works and Goldschtain and Miger (1962) studies in 1950s and 1960s. Traditionally, the evaluation was considered as the final step of a systematic process which tended to promote the training interventions (formulative evaluation) and reminding the effectiveness (final evaluation). Generally, there are different classifications for evaluation patterns by the training experts. Here we present some of them:

A: Eskerion classification:

1. Formulative evaluation pattern
2. Final evaluation pattern

B: Papham classification:

1. Goal fulfillment – based patterns
2. Judgmental patterns
3. Decision making facilitation patterns

C: Seven – scales classification of California University Evaluation Studies Center:

1. Goal – center patterns
2. Decision – centered patterns
3. Answer – centered patterns
4. Patterns based on experimental research designs
5. Free goal patterns
6. Defence – based patterns
7. Application – centered patterns

D. Werten Sanders' classification:

1. Goal – centered patterns
2. Management – centered patterns
3. Consumer – centered patterns
4. Patterns based on sophisticated people view
5. Defence – based patterns
6. Participative ad nature – centered patterns

E. Haves classification:

1. Goal –centered

2. Management – centered (Seep)
3. Free goal
4. Sophisticated view – based
5. Validity measurement
6. Defence – based
7. Practice doing
8. Participative and nature – centered

So studying the training evaluation literature, we can totally recognize 6 common processes for evaluating the training:

1. Goal – based evaluation
2. Accountability evaluation
3. Professional evaluation
4. Free goal evaluation
5. Systematic evaluation
6. Legal like evaluation

Some of famous and most usual models for evaluating the training effectiveness are as follows:

- KMPT Business school model
- Sullivan model
- Philips model
- Kirk Patrick model
- Capability – based model (CBT)
- CIPP model
- Holton model
- Transfer Atmosphere model (LBT)

Bermly believes that goal – based evaluation approaches and systems evaluation approaches have mostly used in evaluating the training (Philips, 1991). Different frameworks of plans evaluation under these two approaches effect are provided. The most effective framework has presented by Kirk. Provided patterns by Kirk Patrick (1959) based on goal – centered evaluation approach are based four questions which have changed to four solid levels of evaluation: Reaction, Learning, Behavior, and Results.

Effective Evaluation Patterns of Kirk Patrick Model

Although many researchers have done on the training effectiveness level, but most of famous evaluation models of past years have been built based on Donald Kirk Patrick 's four – levels training evaluation pattern which was presented first by Kirk Patrick (1959) who designed a framework for measuring the training plans evaluation. This pattern has been described as simple, practical, and comprehensive pattern for many training situations and most of experts have considered it as a scale in the area. Kirk Patrick defines evaluation as determining effectiveness of one training plan and divides the evaluation process into four levels and steps:

1. **Reaction:** reaction means the amount of learners' reaction to all effective factors in performing one training course. In this measurement one seeks to receive the participants' view about training, curriculum of school exercises, training materials and equipment, class or instruments, value and depth of training courses contain and etc. it is very important to receive correct and meaningful answer from participants in this step. (Kirkpatrick, 1998)
2. **Learning:** learning is determining the extent to which skills, technique, and facts are learned by the participants during the training course and are cleared for them and one can understand its amount by training before and after participating in the training course. (Kirkpatrick, 1998)
3. **Behavior:** behavior means how and to what extent changes occur in the participants' behavior because of attending in the training course and it can be cleared by continuing evaluation of real environment of work. (Kirkpatrick, 1998)

4. **Results:** result is the extent to which the goal directly related to organization realized. It is very difficult to measure the forth level in which evidences such as cost decrease, duplication, turnover ratio or accidents, production quality, and sale profit are examined (Kirkpatrick, 1998)

Return on Investment Pattern in the Training

The rational reason for calculating return on investment is not only strategic but also a basic evaluation on the operational level. Development in return on investment emphasizes training need and performance improvement in changing from activity – centered process into result – centered process and this change is observable from the beginning to the end of process. In some cases, change has occurred because pioneer Human Resource Development and Training Department have realized need to return on investment and have decided to improve in this area (Khorasani, 2012). Effectiveness of a few training plans of managers are measured in the practical level. And a few companies use training in this evaluation level and utilize information from goals during goal evaluation. Reasons of calculating return on investment in the training are as follows:

- ROI is the final level of evaluation
- ROI is a familiar concept for the most of managers
- ROI have rich application
- Most of senior manager need information of ROI (ASTD, 2011)

During past years, return on investment (ROI) has been changed into an essential issue for managers. Many specialists believe that its calculation is not possible in the training and some others have presented indicators and approaches for it. There is a robust trend towards complication and examination of training plan relations whose results have been cleared, evaluated, and reported. Vast investment on the training budgets and need to show plans value, are initial stimuli for increasing tendency towards return on investment in the training. But the problem is that the return on investment in the training plans is usually unknown. This evaluation shortage may be because of lack of validity, lack of the proper tools for evaluation, disability of evaluators in contributing investors and disability in obtaining comprehensive approaches for training. For this reason, the training plans profits are often subjective and it is difficult to be stated in the monetary terms framework. Based on America Development and training association, only two percents of development training plans of financial impacts were evaluated. Donald Kirk Patrick designed his famous four – levels evaluation patterns for the training plans. Then and based on this infrastructure, Jack Philips added the fifth level to it and called it ROI (Return on Investment) which refer to return on investment in the training plans. Kirk Patrick believed that four levels of his model provide a logical framework for evaluation and stated that all four levels are important and should not be ignored. Measuring the result of every level, one can have a confident interpretation of other level of this model. Philips pattern (ROI) is extended form of Kirk Patrick Model. Return on investment is the level which has been added to this pattern listed measures of effective methodology of return on investment and value chain of model was provided. (Philips, 2002) fig (1).

Return on investment measurement is the most exact, valid, and applicable process for showing learning effect. If plan profits (which are announced in the form of monetary amount) are more than costs, so study of return on investment will be determined (Abasalt Khorasani, 2012). How financial or monetary amounts interfere the training value based on information about return on investment, is one computable

training activity and it is provided in the Philips' Model of return on investment framework, as you see in (Philips, 2002) fig (2).

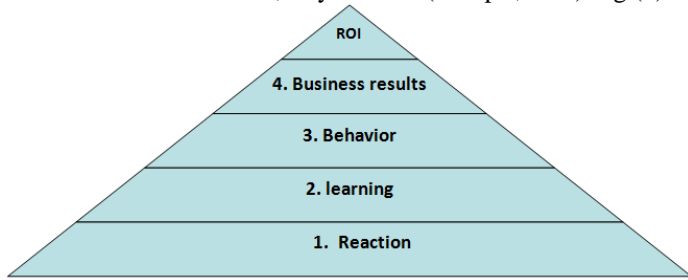


Fig 1. Value chain hierarchy of training results

First step "evaluation planning": initial step of evaluating the return on investment model is planning for evaluation. This step is done in several stages. First stage includes determining of plan goals and evaluation goals, defining different interests which should be evaluated, determining approaches of information collection, and determining time of evaluation. The learning goals are of important aspects of training design. (Philips, 2002) Robert Mager states that there are 3 certain elements in the learning goals:

- A. Expected special performance
- B. Condition under which that performance is expected
- C. Minimal acceptable level of performance

To determine the organizational results, one analysis in the form of "return on investment" evaluation is needed.

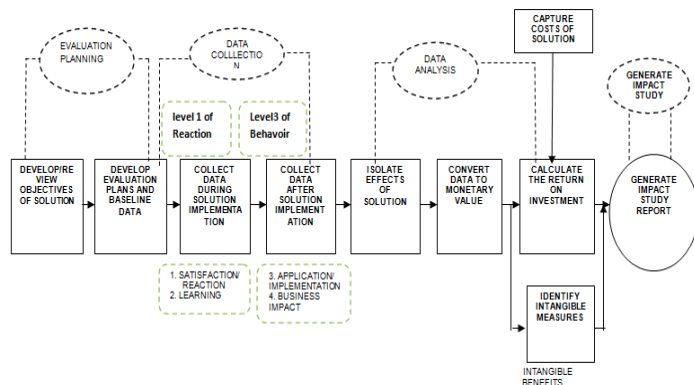


Fig 2. Return on Investment Model – Philips

The next stage of planning evaluation is to determine interests of the training plan. These interests are evaluated by a combined approach. But elements of every plan may be different. Organizations can measure their results. This measurement is completed by observing performance with collecting methods of information. (Philips, 2002)

Second step "data collecting": second step of return on investment model is collecting data. This step includes determining plan costs and physically collecting data of interests. (Philips, 2002)

Third step "data analysis": the third step of this method includes evaluating data, adding up, and reporting results. Evaluating information clears costs and interests adding up. It is necessary to change quantitative data into monetary value for determining interests from the training. (Philips, 2002)

Collecting and analyzing data includes four steps

1. Differentiating training effects: you should be able to measure changes which are results of training in order to determine return on investment in the training. So you should know performance situation or knowledge level before any training (Philips, 2002)
2. Changing the training effects into material interests: effects or interests of one training plan are always clear and proper and it can return spent monetary cost by management. Supervisors,

trainees, chairmen of parts and sections, senior executive directors, and/or board of director are on the top of an organization who should observe performance changes or effects on the bottom of the organization. The training effect can be visible or invisible which is often presented with terms "soft data" and "hard data". The hard data is in the form of quality, statistics, and number and is simply interpreted in the form of material interests, such as productivity degree, loss percent, work hour of each production unit, stop hours resulted from equipment impairment and etc, absence and delay times, workers reward claims (type and number of accident or sickness, unemployment days or underemployment), sales number or Rial price from sales for every consumer, market share percent, amount and indicator of consumer satisfaction, and consumer number with further buy. Soft data is qualitative and is related to invisible interests which are theoretical and based on individual judgment. Therefore its measuring in the form of material interests is more difficult including job satisfaction improvement, team work improvement, organizational commitment increase, successive planning improvement, communication increase on different job levels, more transparency in the certain opportunities improvement, ... (Phillips, 2002)

3. Calculating return on investment: Human Resources managers are usually capable of registering costs of training plan. While calculating costs all indirect cost including workers time, present materials, equipment, lesson class, and etc should be calculated. Return on investment should be easy, cost effective, valid, proper, flexible, applicable, and with considering all costs. (Phillips, 2001)

4. Identification invisible interests: if invisible interests are not more important than calculating return on investment, are not less important than it. The invisible interests are non – monetary determinants which are directly related to the training plans, but can't change to the monetary amounts and their range of scales is almost unlimited. (Phillips, 2001)

5. Reporting: in this step the information and results must be correctly extracted and sent for addressors based on need and goal of reporting, so that each of the addressors can improve their own processes based on provided results. The addressor may be senior management, managers, learners, or worker of the training in the organization. (Phillips, 2001)

Basic Hypothesis of the Research

The on-the-job training effectiveness can be calculated in terms of return on investment rate.

Methodology

This research is considered practical research in terms of goal. The research design is in the range of the experimental researches and the research results confidence is 95 percents statistically and in terms of determining the training course effect on learning and/or the behavior change. Needed data and information of this design has been collected using library and field methods. The library method is used for collecting theoretical and research information related to the subject. And field method is used for determining the effect amount of the training course on the behavior and its relation with the addressors group satisfaction of the research as the learners of the training skills and also determining the effect of production increase, loss decrease, and repair and maintenance costs decrease on the staff of melting kilns unit in the SAIPA Malleable Company.

Studied population volume is equal to total 40 people of the production operators of melting unit in the SAIPA Malleable Company. According to the scientific principles the sampling

method is head count, but the statistical analysis aim is to make the results extendable to the wider statistical population. The tools for measuring reliability and validity was normalized using standard questionnaire, include the questionnaire measuring the learners' satisfaction level, and data of research were collected. The validity of questionnaire measuring the learners' satisfaction of the training course "the principles of operating and melting in the inductive kilns" was calculated by Cronbach's alpha and the coefficient 0.783 was obtained. The 1-5 scales Likert method was used. Therefore 25 copies of the mentioned questionnaire were distributed for test in the statistical population. The obtained information and results were analyzed using techniques such as descriptive statistic (average, median, mode, skewed coefficient, frequency, histogram), the inferential statistics (paired t-test), and Pearson correlation coefficient. Regarding data analysis and answering research question, the statistical models of t pair has been used for comparing pretest and posttest scores and behavior change before and after the course.

Finding and Results of the Research

1. Inferential statistics analysis of learning and knowledge level improvement: we have defined this hypothesis in the form of the statistical hypothesis as follows:

H0: there is not the meaningful difference between the averages in two paired samples of the population.

H1: there is the meaningful difference between the average amounts in two paired samples of the population.

Given that the error percent is 0.05α and confidence level is $0.95(\alpha-1)$ and also given that the sample number in this hypothesis is 40 people, the free degree will be: $df = n-1 = 39$.

So the test amount in the error level of α is equal to:

$$t_{\alpha/2}=1.96$$

Table1. Paired t-test of averages comparison

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Past-test	15.3000	40	1.87014	.29570
	Pre-test	5.2500	40	1.87767	.29689

Paired Samples Test									
		Paired Differences				t	Df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Past-test Pre-test	10.05000	2.66939	.42207	9.19629	10.90371	23.811	39	.000

Given the decision making scale of $p.value = 0.000$, which is less than 5%, the zero hypothesis is rejected, so the course had been effective in the learners knowledge improvement. Hence given the confirming lack of the averages equalities based on the test performing and also comparing above graph which shows the considerable effect on learners' knowledge and learning level improvement, we can say that this training course has enough effectiveness and we will measure the return on investment in the next sections.

1. Inferential statistic analysis of dada of behavior change element:

This test has been defined in the form of the statistical hypothesis as follows:

H0: there is not the meaningful difference between the averages of evaluation scores of the behavior change in two paired samples of the population.

H1: there is the meaningful difference between the averages of evaluation scores of the behavior change in two paired samples of the population.

Given that the error percent of 0.05α and the confidence level of $0.95 (\alpha-1)$, and also given that the samples number of the hypothesis is 40 people, the free degree will be: $df = n-1 = 39$

So the test amount in the error level of α is equal to:

$$t_{\alpha/2}=1.96$$

Table 2. Pair t-test of comparing the average test scores of the behavior change evaluation

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Before-behavior	7.83	40	2.510	.397
	After-behavior	16.15	40	2.455	.388

Paired Samples Test									
		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	after behavior	-8.325	2.973	.470	-9.276	-7.374	-17.708	39	.000
	- before behavior								

Given the decision making scale of $p.value = 0.000$, which is less than 5%, the zero hypothesis is rejected, so the course had been effective in the learners skill and behavior change improvement. Hence given the confirming lack of the averages equalities based on the test performing and also comparing above results which shows the considerable effect on workers' positive behavior change and skill improvement, we can say that this training course has enough effectiveness and we will measure the return on investment in the next sections.

2. Inferential statistic analysis of examining the relation between the learning variable and their behavior change:

The workers' behavior change increases with the learning variable increase which indicates one meaningful and direct relation between two variables. This correlation amount is measurable by performing Pearson test.

The output of the correlation coefficient has been showed in Table 3. The correlation coefficient or P-value which equals to 0.000, has confirmed the relation between two variables. Also r is 0.783 and is also meaningful in the error level of one percent and this shows the high relation of two variables the learning amount and the behavior change. It can be said that the obtained amount is not placed in the critical region and the zero hypothesis is rejected. So the correlation amount between two variables is not because of sample and chance has not effect on it. But also the correlation has created because of the real relation between these two variables.

Separating the Training Effect

The sophisticated experts and managers of FMEA group, examined the effective factors based on FMEA (Failure Mode and Effect Analysis) during a session and all endorsed the training factor and the training course of "operating principles and melting in inductive kilns" as the basic and 100 percent effective factor on production increase, loss decrease, and repair and maintenance costs decrease (production efficiency increase).

The Training Effects Change to the Material Interests

The consumers, beneficiaries of production process in the SAIPA Malibel Company (production managers and supervisors) confirmed the results level so that the training course "operating principles and melting in the inductive kilns" (according to defined general goals and behavioral goals for the course) has a direct effect on key indicator and the strategy goals of the organization (which is the same production increase, loss decrease, and PM costs decrease).

Table 3. The Pearson correlation coefficient between learning degree diffusion and the behavior change

Descriptive Statistics			
	Mean	Std. Deviation	N
Learning	15.30	1.870	40
Change Behavior	16.15	2.455	40

		Learning	Change Behavior
Learning	Pearson Correlation	1	.878**
	Sig.(2-tailed)		.000
	N	40	40
Change Behavior	Pearson Correlation	.878**	1
	Sig.(2- tailed)	.000	
	N	40	40
**.Correlation is significant at the 0.01 level(2-tailed).			

And reports about the production, quality guarantee, and technical unit of PM (Primer Maintenance) were confirming and stating the production increase of 5%, loss decrease of 4%, and melting kilns costs decrease of 2%, respectively.

Return on Investment (ROI) Calculation according to following formula:

Calculation of Return on Investment (ROI) = (BENEFIT - Cost)/Cost*100 = (8,556,152,480 - 4,787,733,200)/4,787,733,200*100 = 78.71

Profit on cost ratio:

$BCR = BENEFITS/COSTS = 1.79$

Identifying the Invisible Interests

In addition to the monetary interests, many training plans have some invisible merits which can't easily change into the monetary value. The invisible interest (non- monetary) in this research can be complain decrease and satisfaction improvement of the consumer.

Discussion and Conclusion

Since in the present condition the organizations need efficient and skillful human force in order to survive, the role of workers trainings is more than other elements. Hence the organizations need to develop the human force and make them able by learning and the most important holding the training courses in order to maintain their own situations in the production cycle and in the stable and consumer – admired services. One of the basic reasons why we examined and searched the effectiveness of the workers trainings, is holding successive training courses in the companies and organizations without any regard to their feedback and effects in the organization, in spite of spending time, cost and much facilities. And it seems that the organizations hold these training courses without target and without any attention to professional, organizational, individual, regional and needs and just according to the rule and for doing the task neglectfully. Therefore for examining the subject, we studied the organizational training role in the return on investment in the workers' training from the managers and sophisticated experts' view of SAIPA Malleabel Company.

The sample number of the training course “operating principles and melting in the inductive kilns” was 40 people. The SPSS software and the statistical pair t-test have been used. The results and the answers of the findings confirm Kirk Patrick's questions, who believes that the training goal is learning three subjects: knowledge and information, skills, and attitudes. So given that the research about the training course “operating principles and melting in the inductive kilns” has been considered as a skill course, can it answer Kirk Patrick's questions “which knowledge has been learned? What skill has been improved? What results are obtained?” and how we can

change the results into return on investment rate based on Philips Model?

This course has led to learners' learning and skill promotion (behavior change), production increase, loss decrease, and PM costs decrease in the SAIPA Malleabel Company. Hence the training should not be considered in the manner of the organizational cost but also as a part of the organizational functions and a type of investment. Since the different organizations spend annually great money for the specific skills training, one exact and scientific evaluation is necessary to show weak and strong points, ways of improving it, the goal realizing amount, and totally a picture of the effectiveness situation of these courses. The research findings and results indicated that on-the-job training courses have had the effectiveness and percent of the return on investment (RIO) rate. This study provides the results in the framework of return on investment rate in the training based on Philips and Kirk Patrick's new models.

References

1. Pour sadegh, Naser. (2005). “Approach of Evaluating the Training Effectiveness”. Tadbir Magazine, no.160.
2. Abbasian, Abdol Hossein. (2006). “The Measurement of Return on Investment of the Training”. Novel management quarterly periodical, November.
3. Ebili, Khodayar. (1993). “The Training and Improvement of the Human Forces”. Samt Publications. 2nd edition.
4. Saatchi, Mahmood. (2007). “Principles and Techniques of Interview Performing: Employment, Evaluation, and Clinical”, Amir Kabir.
5. Farhadi, Hossein. (2005). “The Training and Management of the Human Forces”. 3rd edition. Tehran: Pooyand. 1st edition.
6. Hosseini, S.M.H. (2008). “Examining the Effectiveness of the Employees Training on the Job Performance of the Tabriz Municipality Employees”, research and studies group, the Programming secretary of Shiraz Municipality.
7. Abasalt Khorasani, Reza Mahdi. (2006). “Guide for Designing and Managing the Employees' Training System of the Production and Service Enterprises”. Aria Pajoh Publications.
8. Sadri, Seyed Sadre'in. (2004). “the Government Employees' Training Order”. 1st edition, (Tehran: Country Secretary of Management Development and Human Capital of Planning and Management Organization), P. 14.
9. Abtahi, Seyed Hassan. (2004). “Concept, Properties, and Problems of the Employees' Training”. Governmental management, 1st number.
10. Abbas Zadegan, Seyed Mohammad; Tork Zadeh, Jaafar. (2000). “Measuring the Need of Training in the Organizations”. Publication Co. Tehran.

11. Saeed Panah, M. (2007). "Evaluation of the Effectiveness of the Training Courses of the Employees From the Tehran Housing Bank Employees' View". M.A. Thesis. Educational Sciences College, Tehran Shahid Beheshti University.
12. Sobhanalli, M.V.E, Karani. (2000). "The On-job-training and Its Effects on the Employees' Attitude", the feedback of growth and improvement design of the Power Ministry. Development and management, pages 26-37.
13. Rezazadeh, Goli, H. (1998). "The Evaluation the Effectiveness of Short-term On-the-job Training on the Employees' Performance of the Mines and Metals Ministry". Novels of the management. Fifth period, No. 20, pages 56-61.
14. L. Deft Richard. (1998). "Theory and Design of the Organization". Translators: Ali Parsaeian, Mohammad Aarabi, the Cultural Researches Office, 1st edition.
15. Abasalt Khorasani, Borzu Rashtiani. (2012). "The Comprehensive Approach of the Training Effectiveness". 1st edition, Publication of the Iran Industrial Researches and Training Center.
16. Kirkpatrick, D.L.. "Techniques for Evaluating Training Programs." A four-part series beginning in the November 1959 issue of the Training Director's Journal
17. Phillips.j.jack,proving the value of HR how and why to measure ROI ,SHRM.2008
18. International Conference &Exposition Learning to Lead Orland FL,USA May, ASTD 2011
19. Phillips.j.jack, How to Address the Challenging ROI Issues April 14, 2014
20. Pillips, Patricia Pulliam, Phillips jack j The Value of Learning-How Organizations Capture Value and ROI and Translate Them into Support, Improvement ,and Funds-2007
21. Foxon, Marguerite, Coopers & Lybrand (1991), Evaluation of training and development program, Australian Journal of Educational Technology.
22. Industrial Training Report, Journal of European Industrial Training Volume 30, Issue 9, 2006.
23. Tangen s. Demystifying Productivity and Performance Management, Vol 54, No.1, 2005.
24. PHILIPS, J.J.(1991). HANDBOOK OF TRAINING EVALUATION AND MEASUREMENT METHODS. (2nd). HOUSTON.TX:GULF.
25. KIRK PATRICK, D.L. (1995). TECHNIQUES FOR AMERICAN EVALUATING PROGRAMS, JOURNAL OF THE SOCIETY OF TRAINING DIRECTORS.
26. Fatima, Nasrin. (2009). Investment in graduate & professional degree education. Florida journal of educational administration & policy. Vol, 3. No, 1.
27. NOE, RAYMOND. (2002). EMPLOYEE TRAINING & DEVELOPMENT (2nd). MC GRAW-HILL COMPANIES, INC.
28. In Action: Measuring Return on Investment,Volume 3.Phillips,Editor,Jack J.Phillips,Seriese Editor. American Society for Training and Development,Alexandria,VA,2001.
29. In Action: Retaining Your Best Employees. Patricia P. Phillips, Editor; Jack J. Phillips, Series Editor. American Society for Training and Development and the Society for Human Resource Management, Alexandria, VA, 2002.
30. Kirkpatrick, D. J. (1998). Evaluating Training Programs (2nd ed.). San Francisco. CA.Berrett-Koehler Publishers, Inc.