

Identifying the Effective Factors influencing In-Service Training of Employees at the Red Crescent Society of Zanjan Province

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Abstract

INTRODUCTION: The present study aimed to identify the factors affecting the effective In-Service training of employees at the Red Crescent Society of Zanjan province.

METHODS: This mixed methods research was conducted in two stages. Firstly, the factors affecting the effectiveness of in-service training of employees at the Red Crescent of Zanjan Province were determined through semi-structured interviews with 15 experts in this field (experts and managers of the Red Crescent Society of Zanjan Province). Thereafter, the opinions of 234 Red Crescent employees about these factors were assessed via a Likert scale questionnaire.

FINDINGS: Based on the results, the factors affecting the effectiveness of In-Service training among the employees at Red Crescent Society of Zanjan Province included support and supervision, organizational climate and learning organization, change of attitude and thinking, rules and regulations, processes, technical equipment and technology, as well as professional knowledge and skills.

CONCLUSION: The results pointed out that, in general, all the factors affecting the effectiveness of training were identified and explained in three categories: structural, behavioural, and environmental.

Keywords: Employee training; In-service training; Professional development of employees

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Introduction

One of the most important characteristics of today's advanced companies and organizations is change. If we cannot keep up with the complex and rapid changes taking place in organizations, we are likely to lose in this competitive world (1). Therefore, every organization is in dire need of skilled and competent human resources to keep pace with the complex changes of the modern world. Human resources constitute the most valuable resource of an organization since effective use of other resources, such as technology, capital, and environment, hinges on

expert and committed human resources.

All governmental and non-governmental organizations need specialized, experienced, and trained people to achieve their goals. Therefore, training and development of human resources in the human resources management system not only plays a significant role in the enhancement of employees' knowledge and skills but also makes them contribute to improving the efficiency and effectiveness of the organization and adapting to environmental pressures. The rapid developments in the field of knowledge and technology create new educational needs for

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different jobs in organizations, and university education alone is not responsive to these needs. As a result, other types of education, such as pre-service education, on-the-job training, and in-service education (after entering the service), are urgently needed (2).

According to Martin (2021), training as a basic responsibility in organizations is continuous and permanent (3). Employees at any organizational level (managers or subordinates) are required to learn new skills and upgrade their professional information. They need to be engaged in a continuous process of acquiring new methods and information in order to perform their work better. In addition, in the event of changes in job positions, employees need to learn new skills to successfully take on the responsibilities of the relevant job (4).

In organizations in which the training of human resources is given more critical importance, the employees always strive to acquire new information and practical skills in order to achieve better productivity and efficiency (5). These organizations are characterized by dynamism and creativity in order to create effective changes in internal organizational factors and interact with their social environment (6). The main goal of human resource management in every organization is to help better performance-that is, the enhancement of efficiency in an organization to achieve organizational goals.

Today, the studies demonstrated that the aforementioned goals would not be realized unless the management of organizations achieves effective educational goals in continuous training of human resources (7). Education holds a special place in the development and excellence of individual and social life of people; therefore, it can be considered the driving force of the entire human life (5). People from all walks of life in society need training to achieve growth and excellence, and in this regard, employees, as the main agents in organizations, need continuous training in order to adapt to rapid changes in the ever-increasing demands of society (8). Therefore, human resource training is not only a desirable process but also an activity for which every organization must consider sufficient resources in order to have access to efficient and up-to-date human resources (3).

The presence of employees with little training

can lead to mistakes and losses, which are very costly (5). There are three types of training in the organization: pre-service training, on-the-job training, and in-service training (after entering the service). Pre-service training is the type of training that is provided to an individual before a person takes up a job. This type of training aims to build and improve the necessary capabilities of the personnel to prepare them for special jobs. Pre-service training can be either short-term or long-term.

During on-the-job training, employees are familiarized with the working environment they will become part of. The main purpose of this course is to familiarize the employee with the job that will be assigned to him/her and is related to the place where he/she will work at. During this course, employees are familiarized with their work environment, duties, responsibilities, and rights; that is to say, how to establish a healthy relationship with the organization. This training is mandatory and usually lasts 60 hours. In-service training is a systematic effort to coordinate the desires, interests, and future needs of individuals or organizations in the form of the tasks that are expected from individuals.

In this research, employee training refers to in-service training. If employees do not have the necessary and appropriate knowledge, information, and skills, the organization will face financial and administrative problems and obstacles.

Since technology and knowledge grow at a rapid pace, specialist employees need to be trained on up-to-date skills and knowledge shortly after entering the job (1). Moreover, in-service training is required to match the needs of each organization with the abilities, as well as skills and knowledge of employees. These training courses, in addition to the continuous and regular acquisition of skills and the strengthening of professional qualifications, lead to an increase in the quality of service output of organizations, which in turn results in the satisfaction of service recipients (9). Therefore, organizations should identify educational needs, provide educational facilities, and evaluate their effectiveness. This guarantees that all activities affecting product and service quality are performed by competent people (10).

Some of the reasons highlighting the necessity of analyzing and providing a model for the effectiveness of educational programs

include establishing necessary conditions for continuous improvement of educational programs, assessing the achievement of the set goals, clarifying the strengths and weaknesses in the implementation of the programs, preventing the deviation of the program, and correcting the defects, helping to respond to superior authorities and providers of educational expenses, assuring relevant and interested people about the quality of affairs, as well as helping to increase the efficiency and quality of factors involved in educational programs (11). This training is cost-effective when it leads us to predetermined goals, corrects deficiencies in skills, knowledge, and attitude, and leads to quantitative and qualitative improvements in performance and productivity.

The allocation of a considerable part of the organization's budget to these training courses emphasizes the necessity of evaluating their effectiveness. The importance and necessity of holding these training programs can be considered when this importance is highlighted by the results obtained in the evaluation of the effectiveness of the training courses (12). Despite the key importance of in-service training in the development of employees and realizing organizational goals (13), the effectiveness of in-service training is far from ideal (5).

Currently, organizations have lost the money spent on training since they have had poor performance in education design due to the fact that training either was not related to organizational strategy or its consequences and results were not properly evaluated (14). That is, organizations have invested in training simply since they believed it was a good idea. Training courses that are provided to employees without a convincing reason are becoming obsolete. Today, education is not evaluated based on the number of programs provided and educational activities in organizations. Rather it is evaluated on the basis of how organizational needs related to learning, behavioral changes, and performance improvement are examined in the education process (15).

The results of previous studies demonstrated that incompatibility between the content of in-service training programs and the actual needs of employees, lack of alignment of these programs with organizational priorities and expectations, incompatibility between training programs and the standards of in-service

training, failure to properly evaluate the effectiveness of courses, and failure to implement new training methods are among the reasons that have caused in-service training to impose huge costs on organizations instead of bringing in profit and making a positive change in the performance of the organization (10).

In this regard, the identification and implementation of a suitable scientific model and necessary educational measures to improve the tasks assigned to employees is a positive and strategic measure that leads to individual satisfaction and plays a significant role in the development of the organization. Therefore, the present study aimed to identify the factors affecting the effective in-service training of employees at Red Crescent of Zanzibar province.

There are many models in the field of in-service training. The ISO 10015 model, which was presented by Norman and Shanen, includes a four-step process including a) defining training needs; b) designing and planning training; c) providing for the training; d) evaluating the outcome of training (16). The model of in-service training as counseling, the most important supporters of which are Saunders and Holdway, has received a lot of attention in the last few decades. The main idea of the stated model is that the consultants in the organization can lead to the improvement of employees' performance and greater accountability of the organization. Moreover, apart from creating more flexibility in the performance of activities, they can increase the job satisfaction and professional development of employees.

Although this model provides a useful perspective on employee training, it does not actually provide any unique method for organizing and delivering in-service training. Therefore, the efforts made in this field can only be considered an endeavor to improve managers' insight in an attempt to solve organizational problems. The added effectiveness model, which is also known as the standard-oriented model of in-service training, seeks to increase organizational effectiveness through human resources training. In this regard, it benefits from a set of specific standards and criteria, including the advisory committees of experts and the definition of standards based on agreement, the implementation of studies, accurate performance evaluation, and fieldwork to achieve standards, as well as comparative studies and comparisons

with successful organizations and institutions.

After determining effectiveness standards and defining criteria, the necessary employee skills are identified to realize the effectiveness and the required resources. Moreover, while evaluating the current situation of the employees in terms of the relevant skills, the required training program is designed and implemented. The existence of ever-increasing models in this field indicates the critical importance and effectiveness of in-service training. The importance of effective in-service training in providing training and learning opportunities for employees and consequently increasing their abilities and knowledge, which leads to greater productivity and survival of the organization, highlights the necessity of addressing this issue.

Improving and upgrading effective in-service training of Red Crescent employees to improve service delivery and eliminate their weaknesses can increase the satisfaction of service recipients. Moreover, it can enhance employees' efficiency and their adaptation to the environment, as well as the level of service quality. Tahvildari et al. (2020) presented a model of an effective training system for employees of Iran's Ministry of Petroleum. The research population included education experts, including university professors and senior managers of the Ministry of Petroleum, who were selected by purposive sampling and the snowball method.

After conducting 30 interviews, the data reached the saturation point. The data collection tool was a review of relevant national and international documents, as well as a semi-structured exploratory interview. Finally, grounded theory and coding were used to classify the data. The findings indicated that the model of an effective training system for employees of the Iranian Ministry of Petroleum includes such dimensions as learner, content, instructor, environment, executive requirements, outcomes, organization, and management (17).

Methods

Considering that this research sought to find effective key indicators for effective in-service training of employees, a qualitative approach was used to identify these factors. Qualitative research seeks people's perceptions and experiences, taking place through such activities as interviewing, observation, and participation of the researcher in the context of the research, and

finally provides the researcher with first-hand information about the subject under study. This approach is appropriate when it is necessary to collect research data by such methods as examining the experiences and views of people about the subject under study. Therefore, the data needed in this stage of the research were collected by the semi-structured interview method. At this stage, the factors affecting the effectiveness of in-service training were considered by people who had experience and knowledge in the field of planning, implementation, and evaluation of in-service employee programs.

These people were selected by purposive sampling- that is, based on their knowledge and experience in the field of in-service training. Accordingly, the statistical population included 15 university experts and managers of the Red Crescent Society of Zanjan province. The semi-structured interview questions were designed around the three categories of structural, environmental, and behavioral factors. The participants were asked to express their views and experience about the effectiveness of these factors.

The second stage of the research was conducted with the aim of evaluating the level of agreement of Red Crescent employees of Zanjan province with the factors identified in the qualitative section. To this end, the factors needed to improve the effectiveness of in-service training of Red Crescent employees obtained from the analysis of interviews were compiled in the form of items in a five-point Likert scale questionnaire and randomly sent to 234 Red Crescent employees of Zanjan province in 2022, and they were asked to determine their level of agreement or disagreement with each item.

Findings

The first questionnaire was compiled based on the literature, interviews with a group of university professors and expert managers, and according to the opinions of supervisors. It included 33 items that determine the factors affecting effective in-service training of employees. These indicators are categorized into three criteria which are presented in Table 1.

Assessing the importance of indicators

Questionnaire A was presented to participants; subsequently, after collecting the questionnaires

and entering the extracted data into the Excel software. The mean of each index was calculated; the indices with values lower than 4 were removed, and the indices with scores equal to or higher than 4 were selected. According to the findings displayed in the above table, the

meaningful and acceptable indicators of each of the dimensions and components of the factors affecting effective in-service training of employees were determined from the experts' point of view. The report of the indicators explained in each factor is illustrated in Table 2.

Table 1. Criteria and indicators of the questionnaire A

Criteria	Indicators	n
Structural factors	Implementation of the employee training needs assessment plan, compatibility of training programs with the needs of the organization and employees, planning aimed at organizational goals, designing and selecting up-to-date and practical educational content, evaluating the effectiveness of the held courses, having a suitable training environment, library and workshop equipment, library and workshop equipment, availability of computer infrastructure, education based on new and advanced technologies, institutionalizing the culture of virtual education in the organization and employees, financial support for training courses, changes in management and rapid displacements hinder the development of in-service training, and flexibility in training time.	14
Environmental factors	Ranking and promotion of employees based on the performance compensation system/rewarding system based on changes in performance/supporting the learning and career advancement of employees individually and in groups/continuous and targeted training courses/encouraging employees to actively learn/creating an environment for expressing thoughts and ideas/promoting team activities.	7
Behavioral factors	Attitude and thinking in the individual behavior of employees / attitude and thinking in the group behavior of employees / making changes in attitude, performance and organizational behavior / elevating the level of employee skill / paying attention to cooperative learning / taking advantage of educational experiences of successful countries / preparing training courses based on sending employees on business trips / developing the spirit of research / creating motivation and desire in employees by updating information / using experienced and expert teachers / using new teaching methods / restraining the teacher in communicating with students.	12

Table 2. Dimensions and indicators in the Delphi design

	Indicators (sub-criteria)	Mean
Structural factors	Implementation of the employee training needs assessment plan	4.3333
	Compatibility of training programs with the needs of the organization and employees	4.6
	Processes	
	Planning aimed at organizational goals	4.5333
	Designing and selecting up-to-date and practical educational content	4.333
	Evaluating the effectiveness of the held courses	4.333
	Having a suitable training environment	4.2
	Library and workshop equipment	4.8
	Availability of computer infrastructure	4.9333
	Education based on new and advanced technologies	4
	Institutionalizing the culture of virtual education in the organization and employees	4.3333
	Financial support for training courses	4
	Rules and regulations	
	Changes in management and rapid displacements hinder the development of in-service training	4.2667
	Flexibility in training time	4.333

Table 2. Continue

Table 2: Continue			
Environmental factors		Ranking and promotion of employees based on performance compensation system	4.2
	Support and supervision	Reward system based on changes in performance	3.4
		Supporting the learning and career advancement of employees individually and in groups	4.9333
	Organizational climate and learning organization	Continuity and orientation of training courses	4
		Encouraging employees to learn actively	4.1333
Creating a suitable space for expressing thoughts and ideas		4.0667	
Behavioral factors	Change of attitude and thinking	Attitude and thinking in the individual behavior of employees	4.333
		Attitude and thinking in the group behavior of employees	4.375
	Making changes in attitude, performance, and organizational behavior	4.3125	
		Increasing the level of employee skills	4.333
		Attention to cooperative learning	4.2
	Professional knowledge and skills	Taking advantage of the educational experiences of successful countries	4.333
		Preparing training courses based on sending employees on business trips	4.5333
Developing the spirit of research		4	
	Using experienced and expert teachers	4.3333	
	Using new teaching methods	4.333	

Findings of the quantitative section**Opinion of Zanjan Red Crescent employees about the identified factors**

Since the purpose of this stage of the research was to investigate the level of agreement of Red Crescent employees of Zanjan province with the factors identified in the qualitative stage, the descriptive statistics analysis method was used to

calculate the means. In this way, the items that scored above 3 (out of 5 on the Likert scale) were determined as approved factors. Therefore, as illustrated in Table 3, all the factors identified in the qualitative stage were evaluated as important by the employees of Red Crescent of Zanjan province.

Table 3. The level of agreement of Zanjan Red Crescent employees with the identified factors to improve the effectiveness of in-service training

		Indicators (sub-criteria)	Mean
Structural factors	Processes	Implementation of the employee training needs assessment plan	4.1313
		Compatibility of training programs with the needs of the organization and employees	4.1313
		Planning aimed at organizational goals	4.4
		Designing and selecting up-to-date and practical educational content	4.0667
	Technical equipment and technology	Evaluating the effectiveness of the held courses	4.0667
		Having a suitable training environment	4.5333
		Library and workshop equipment	4.5
		Availability of computer infrastructure	4.4375
		Education based on new and advanced technologies	4.375
		Institutionalizing the culture of virtual education in the organization and employees	4.1333
Environmental factors	Rules and regulations	Financial support for training courses	4.2
		Changes in management and rapid displacements hinder the development of in-service training	3.6
		Flexibility in training time	4.3125
	Support and supervision	Ranking and promotion of employees based on performance compensation system	4
		Reward system based on change in performance	4.1335
		Supporting the learning and career advancement of employees individually and in groups	4.125
	Organizational climate and learning organization	Continuity and orientation of training courses	4.0625
		Encouraging employees to learn actively	4
		Creating a suitable space for expressing thoughts and ideas	4.5

Table 3. Continue

Behavioral factors	Change of attitude and thinking	Attitude and thinking in the individual behavior of employees	4.4375
		Attitude and thinking in the group behavior of employees	3.4
		Making changes in attitude, performance, and organizational behavior	4
		Increasing the level of employee skills	4.375
		Attention to cooperative learning	4.3125
	Professional knowledge and skills	Taking advantage of the educational experiences of prosperous countries	4.2667
		Preparing training courses based on sending employees on business trips	4.0667
		Developing the spirit of research	4.5333
		Using experienced and expert teachers	4.0667
		Using new teaching methods	4.2

Discussion and Conclusion

The employees in any organization are considered the most important resources and capital of that organization. The productivity and efficiency of an organization are closely related to the level of knowledge, skill, orientation, and attitude of employees in that organization. Therefore, it is of utmost importance to pay close attention to their training. One of the effective and efficient ways to train employees is through in-service training. In-service training has been defined as training that is provided to an individual before a person takes up a job.

In the explanation of the obtained finding, it should be acknowledged that the structural dimension includes the set of regular relationships governing the internal components of the organization, such as the organizational structure, rules, and regulations. The results of the analyses performed in the qualitative stage led to the development of a model for improving the effectiveness of training of Red Crescent staff in Zanjan province. It consisted of three dimensions: structural, behavioral, and environmental.

The structural dimension has three components: processes, equipment, technical and technological, and rules and regulations; the behavioral dimension consists of two components: 1) changing attitude and thinking, and 2) professional knowledge and skill. The environmental dimension included two components of 1) support and supervision, and 2) organizational climate and learning organization. The findings of this study indicated that the compiled model could be used to improve effective in-service training of employees.

In line with the findings of the present research, in the studies conducted on effective in-service training of employees, the structural dimension (Robert, 2014; Mattis, 2013; Rashtiani, 2011; Ezzati, 2017), behavioral dimension (Song,

2014; Chiou-hui, 2010; Vaezi et al. 2018), and the environmental dimension (Ventlid, 2014, Fathi, 2015; Delfan, 2018) were taken into consideration. To have effective in-service training, as Patrick has acknowledged in his model, setting educational goals and specifying content are essential steps for designing and implementing educational programs.

In order to realize the main aim of its in-service training programs, the organization must strengthen the structural dimension and have proper planning. Undoubtedly, improving the quality of training leads to enhanced performance of employees and, consequently, policy makers' support for in-service training. Nonetheless, the organization needs to review its policies and priorities and support the in-service training of employees financially and infrastructurally. In so doing, those involved in training can be empowered for a better needs assessment, design, as well as presentation and evaluation of in-service programs. Moreover, employees can attend these programs enthusiastically, observing a change in their skills and knowledge.

Based on the conducted studies, there is a strong relationship between educational usefulness and educational transfer. It can be stated that in the behavioral dimension, paying attention to raising the level of knowledge and skills of employees through experienced professors is an important factor in the success of effective in-service training courses. Tai (2006) believes that learners who have a positive educational framework have higher levels of self-efficacy and learning motivation. Chiaburu (2010) (18) also acknowledged that support from the organization and supervisor would lead to an increase in self-efficacy in education. Therefore, if before the development of in-service training programs, supervisors form a special learning atmosphere and positive relationships with the employees as trainees in the training course, they

will demonstrate high self-efficacy and learning training motivation

The present research identified the factors affecting the effective in-service training of employees at the Red Crescent of Zanjan province. According to experts in this field (experts and managers of the Red Crescent Society of Zanjan province), the effective factors are as follows: support and supervision, organizational atmosphere and a learning organization, change of attitude and thinking, laws and regulations, processes, technical and technological equipment, as well as professional knowledge and skills.

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Conflict of Interests

The authors declare that there were no conflicts of interest in this study.

References

1. Darvishi Chari R, Safar Heydari H. Examining the effectiveness of in-service training and identifying the factors affecting it in elementary school teachers of Eastern Bandpi region. The 6th International Conference on New Researches in Counseling, Educational Sciences and Psychology of Iran, Tehran. 2021. [In Persian].
2. Ghaffari Y. The role of modern education while serving the human resource development in municipalities (with emphasis on Shahriyar municipality). The Fourth National Conference on the Development of Modern Technologies in Management, Accounting and Computer Sciences, Tehran. 2021. [In Persian].
3. Martins PS. Employee training and firm performance: Evidence from ESF grant applications. *Labor Econ*. 2021; 72: 102056.
4. Rahimi F. Relationship between satisfaction with in-service teacher training and job performance Mediated by the professional development of teachers in Baharestan region. *New Approaches Educ Res*. 2022; 4(1): 51-62 [In Persian].
5. Nguyen TQ, Nguyen AT, Tran AL, Le HT, Le HH, Vu LP. Do workers benefit from on-the-job training? New evidence from matched employer-employee data. *Finance Res Lett*. 2021; 40: 101664.
6. Xie X, Zhu Q, Qi G. How can green training promote employee career growth? *J Clean Prod*. 2020; 259: 120818.
7. Jalali M, Vahdati H, Mahmoudpour N. Presenting a model for measuring the effectiveness of in-service training in service organizations (case study: Imam Khomeini Relief Committee (RA)). The second International Conference on New Challenges and Solutions in Industrial Engineering and Management and Accounting, Damghan. 2021 [In Persian].
8. Sas M, Reniers G, Ponnet K, Hardyns W. The impact of training sessions on physical security awareness: Measuring employees' knowledge, attitude, and self-reported behaviours. *Saf SCI*. 2021; 144: 105447.
9. Pantouvakis A, Bouranta N. The link between organizational learning culture and customer satisfaction: Confirming relationship and exploring moderating effect. *Learn Organ*. 2013; 20(1): 48-64.
10. Jaworski C, Ravichandran S, Karpinski AC, Singh S. The effects of training satisfaction, employee benefits, and incentives on part-time employees' commitment. *Int J Hosp Manag*. 2018; 74: 1-2.
11. Bozionelos N, Lin CH, Lee KY. Enhancing the sustainability of employees' careers through training: The roles of career actors' openness and of supervisor support. *J Vocat Behav*. 2020; 117: 103333.
12. Mansouri H, Yazdakhahi A. Presenting the management model of virtual service education to the employees of Isfahan City Education Department. The Second International Conference on New Challenges and Solutions in Industrial Engineering, Management and Accounting, Damghan. 2020 [In Persian].
13. Bhat ZH. Impact of training on employee performance: A study of retail banking sector in India. *Indian J Appl Res*. 2013; 3(6): 292-3.
14. Pham NT, Vo-Thanh T, Shahbaz M, Huynh TL, Usman M. Managing environmental challenges: Training as a solution to improve employee green performance. *J Environ Manage*. 2020; 269: 110781.
15. Saei SH, Abdullah Zadeh A, Asadi SH. Evaluation of the effectiveness of in-service training courses for the education and training workers of Miandoab city in the last two years based on the SIP model. The 6th International Conference on Modern Research in the Field of Counseling, Educational Sciences and Psychology of Iran, Tehran. 2021 [In Persian].
16. Bayat B, Amouzadeh M. Measuring the effectiveness of in-service training courses (case study: physical education teachers in 21 districts of Tehran). The 4th Annual International Conference on New Developments in Management, Economics and Accounting, Tehran. 2021 [In Persian].
17. Tahvildari B, Khorshidi A, Araghi A, Khosravi Babadi A, Faghih Aram B. presenting a model of effective training system for the staff of the Iran ministry of Petroleum. *IIESHRM*. 2020; 11(44): 343-72 [In Persian].
18. Chiaburu D.S., Dam K.V, Hutchins H.M. Social support in the workplace and training transfer: a longitudinal analysis. *International Journal of Selection and Assessment*. 2010; 18(2): 1-8.