Review

Evaluation of Training Effectiveness: A Case Study of the Ministry of Interior, Thailand

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Human resource development activities are human capital investment by organizations. Thus, it is important that the training program assessment is conducted to obtain feedback for further improvement of the programs to develop the needed competencies for participants and training effectiveness. This paper reviews issues related to training and evaluation in term of its effectiveness as to provide some guidelines to the in-service training programs conducted in the public sector organizations in Thailand. The Ministry of Interior in Thailand is taken as a case study. Based on the relevant literature review and some in-depth interviews, we come up with some recommendations for strategic human resource development for the Ministry of Interior and the public sector organizations in Thailand in general.

Keywords: In-service public personnel training, training effectiveness, evaluation, Ministry of Interior, Thailand.

INTRODUCTION

Human resource development activities are human capital investment by organizations. Training is one of the most universal methods for enhancing employee productivity and reinforcing organizational objectives (Arthur et al., 2003; Tharenou, 2007). Training in organizations is an organized educational activity that enhances learning and helps employees develop their personal and organizational skills, knowledge, and abilities. It is one of the most important functions of organization's human resource management because it reflects organizations' recognition of the value of human capital investment (Noe, 2005; Yang et al., 2009).

The implementation of training programs, whether for employee development or organizational interventions, has unequivocally become a growing industry and a significant investment by organizations of all sizes. In light of the regular investment of time and capital on the part of the organizations for training intervention development and implementation, it is essential that organizations also have in place systems to ensure acceptable returns on their investment; specifically through training evaluation (Stoughton et al., 2011).

This paper aims to enhance the understanding of the factors influencing the effectiveness of training on organizational-level outcomes, the training evaluation as well as measurement to be developed by organizations. It first reviews some previous studies that have investigated the relationship between training and organizational outcomes. Then, it discusses the relevant issues in training and evaluation. Finally, it presents briefly the training evaluation objectives of the Ministry of Interior, Thailand and how it can further improve its training activities for training effectiveness.

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The Relationship between Training and Organizational Outcomes

It is suggested by Galbreath (2005) that organizational assets, such as culture, human resource management policies and corporate structure can significantly impact on a firm's success. Based on this resource-based view approach, such assets should be carefully planned and developed, particularly with respect to their synergistic impact on the development and utilization of firm capabilities. In our study, human resource development and recuperation of such investment through utilization of developed human resources is one of the critical success factors of firms.

Tharenou et al., (2007) suggest that training is positively related to human resource outcomes and organizational performance. However, the effect is very weak in term of financial outcomes. In addition, the relationship between training and firm performance may be mediated by employee attitudes and firm human capital. Furthermore, training appears to be more strongly related to organizational outcomes when it is matched with key contextual factors such as organization capital intensity and business strategy.

Evidently, the effect of contextual moderators on the learning–transfer relationship is to be taken into account. In addition to leader support and group climate, we need to ask whether there are some other organizational, group, and individual-level factors that increase the likelihood that trainees would transfer learning to the work context (e.g., compensation systems, team design features, career stage). Moreover, there may be some other factors such as the company policies or the post-training processes through which learning outcomes translate to effective transfer.

Research by Chen et al., (2005), for instance, suggests that self-regulation processes, such as choice of goals and effort allocated towards goal striving, help explain why and how learning outcomes, and particularly affective outcomes (efficacy beliefs), translate into effective transfer at both the individual and team levels of analysis. This suggests that contextual factors, such as compensation and leadership practices, can facilitate transfer through their impact on post-training motivation. Similarly, there are plausible arguments that post-training performance of individuals and teams can have a powerful and beneficial impact on the organization as it tends to create and sustain a learning oriented company climate and culture (Ostroff et al., 2003).

Training Effectiveness

The effectiveness of training can be influenced by various factors such as the input into the training activities which include the participant's skills, knowledge, and abilities; the training instructor, the training content and methods. The first two components depend largely on the recruitment and selection processes of the organizations. The latter two components depend on the interaction and collaboration between the organization and the instructors/trainers. The training activity plans should be based on needs analysis conducted prior to the actual organization of training activities. Once it is conducted, the training content and methods could be a significant factor enhancing the learning effects on the participants.

Yang et al., (2009) classify training contents into three categories and use cross-cultural training as an example to illustrate. The first category is cognitive contents. This can be basic knowledge about certain job roles, tasks to be performed or the 'know-why and know-what'. Second, skill-based content which is more of the know-how content, how the actual task should be done, etc. Lastly, most training programs need to touch attitudinal content in areas of raising cultural awareness, changing attitudes toward different cultures and customs, and assuring trainees' confidence and self-efficacy values (Anderson, 1982; Bloom et al., 1964).

For training methods, it can be designed in such a way that the training participants are motivated to learn and apply the learned concepts (Woods, 1995). These methods can be classified into three major categories: presentation, hands-on, and group building (Noe, 2005; Yang et al., 2009). Presentation methods refer to training techniques in which trainees are passive recipients of information including facts, processes, and problem-solving methods. Examples of presentation methods include lectures and audiovisual techniques. Hands-on methods refer to training processes in which the trainees are actively involved in learning, such as, on-the-job training, self-directed learning, apprenticeship, simulations, cases studies, business games, role play, and behavior modeling. Group-building methods are methods designed to improve team or group effectiveness that include action learning, adventure learning, coordination learning, cross training, experiential learning, guidelines, team leader training, and team training. In practice, training activities in organizations utilize a wide variety of training methods including lectures, video films, experiential exercises, cultural assimilators, and behavior modification. Thus, we can say that training methods involve both cognitive and behavioral approaches. It can be designed for both 'off-the-job' and 'on-the-job' training. Cognitive methods are best for knowledge development and behavioral methods for skills (Blanchard and Thacker, 1998). The decision about what approach to take to training depends on several factors that include the amount of funding available for training, specificity and complexity of the knowledge and skills needed, timeliness of training needed, and the capacity and motivation of the learner.

Khattak et al., (2011) conducted the impact analysis of

the in-service teacher training programs of the testing and evaluation sub-committee of the English Language Teaching Reforms (ELTR) Project in Pakistan and found that the following factors should be improved in order to increase the impact of training on teacher performance. These include (i) the more merit and need-based recruitment and selection or nomination of trainees on merit and need-based; (ii) the instructor and training approach should be more practical and trainee-oriented; (iii) the content and training environment must be tailored to the trainees' needs and abilities; (iv) the trainees should be grouped according to their job position or level to reduce diversity in needs and capacity and allow focus of the training programs.

It is evident from various research that factors that enhances the effectiveness of training especially in term of learning and transfer to the workplace are found to include individual learning readiness, supervisor support of learning, and knowledge gain are predictive of training transfer (Antle et al., 2008). There is also a notion of involving stakeholder groups engaged in brainstorming to generate statements to assess organizational effectiveness. Some researchers have asserted that cultural factors affect training effectiveness. This is through the following dimensions: (1) contents and methods, (2) selection of trainers, and (3) learners' motivation, valence and learning style (Yang et al., 2009). For example, in their study, Yang et al., (2009) hypothesize the following. First, trainees in the collectivistic cultures have higher extrinsic motivation than trainees in individualistic cultures. Trainees in individualistic cultures have higher intrinsic motivation than trainees in collectivistic cultures. Along this line of thinking, it is expected that in individualistic cultures, trainees' valence and training motivation are higher when training is perceived to increase the competencies of individuals than they are when training is perceived to benefit the trainees' groups and organizations.

However, in collectivistic cultures, trainee's valence and training motivation are higher when training is perceived to benefit the group and organizations than they are in individualistic cultures. Secondly, in term of learning style, it is expected that trainees from a collectivistic culture are more likely to adopt a concrete intuitive, and inductive learning style. Trainees from individualistic culture are more likely to adopt an abstract and deductive learning style. Thirdly, in term of training effectiveness, in high uncertainty avoidance cultures, training tactics that show established and proven training effectiveness are associated with a higher level of valence. It is also expected that a training program in a culture of high power distance is more likely to use experts as trainers. Trainees from a culture of low power distance are more likely to accept peers as trainers than trainees from a culture of high power distance. Fourthly, in term of motivation, it is expected that in high power distance cultures, trainees

have stronger training motivation when the training is implemented by using a top-down approach. In low power distance cultures, training motivation is higher than in higher power distance cultures, when trainee's participation in the decision-making process of the training is enhanced. In a masculinity culture, the trainee's valence and training motivation are higher when training is perceived to increase personal competencies than they are when training is perceived to benefit the trainee's interpersonal relationship with other people.

In a culture of femininity, trainees' valence and training motivation are higher when training is perceived to benefit the trainees' interpersonal relationship with other people than they are when training is perceived to increase personal competencies. Finally, a training program that is conducted in a culture where knowledge is believed to be objective is more likely to focus on cognitive content. Training in a culture where knowledge is believed to be subjective is more likely to focus on skill-based and affective content.

When taking cultural values into consideration, according to Hofstede (1980), Thailand has the following characteristics along the five dimensions. The scores are 64 for power distance; 20 for Individualism; 34 for masculinity; 64 for uncertainty avoidance and 56 for long-term orientation. Thus, it is considered a collectivistic, high power distance, high femininity with high uncertainty avoidance characteristics and somewhat long-term orientation. Thus, as Yang et al., (2001) have hypothesized, we expected that in the Thai context, in term of learning style, it is expected that trainees are more likely to adopt a concrete intuitive, and inductive learning style. In term of motivation, trainees have stronger training motivation when the training is implemented by using a top-down approach and they will have higher extrinsic motivation since training is perceived to benefit the trainees' groups and organization. As Thailand has somewhat high uncertainty avoidance score, training tactics that show established and proven training effectiveness are expected to be of more value to the trainees. In addition, it is also expected that a training program in a culture of femininity, trainees' valence and training motivation are higher when training is perceived to benefit the trainees' interpersonal relationship with other people than they are when training is perceived to increase mainly personal competencies.

Organizational influences may also impact on employee behaviors, although they are sometimes measured as the perceptions of individual employees. Noe (1986) proposes that organizational factors, or environmental "favorability," affects both trainees' pre-training motivation to learn and their post-training motivation to use new skills. According to Noe (1986), environmental favorability may be broken down into task and social components. The task component reflects the availability of resources to support the use of what was learned in

training. Proper tools and materials and sufficient time to perform newly learned skills exemplify this component. Workload is another aspect of the task. Workload may contribute to overuse of one's body. It may also contribute to less transfer of new skills to the workplace (if new skills take more time or attention, even initially). In term of safety training, for example, workload may overwhelm the effects of training, no matter what type it is. Thus, the higher workload, the higher propensity of worker's injuries in spite of the training received.

On the other hand, the social support component of environmental favorability includes attitudes and actions of peers, superiors, other workers, and family toward both the training and the skills learned in training. When they are supportive, training is more likely to be effective and to be translated into workplace practice. There are also some evidences of the mediating influence of the social support construct on the relationship between training and outcomes in the food service industry (Mathieu et al., 1992; Rouiller and Goldstein, 1993; Tracey et al., 1995; Tracey and Cardenas, 1996). Both social support and the availability of sufficient workplace resources to perform new behaviors are thus important for the development of 'transfer of training climate' (Goldstein 1986; Rouillier and Goldstein, 1993).

Training Evaluation

Training evaluation is defined as the systematic collection of descriptive and judgmental information necessary to make effective decisions related to the selection, adoption, value, and modification of a training intervention (Goldstein and Ford, 2002). The information gleaned from a training evaluation would then be available to aid in effective revision of a training intervention to achieve any number of multiple instructional objectives. According to Goldstein and Ford (2002), training evaluation is best viewed as an information gathering technique that should have as its goal to capture, to the best of its ability, the dynamic flavor and objectives of a training program. They go on to state that training program objectives can reflect numerous goals ranging from individual trainee progress to larger organizational-level goals, including overall profitability (Goldstein and Ford, 2002). As training can have such a wide variety of objectives (e.g., increasing efficiency, teaching declarative knowledge, decreasing the number of workplace accidents, skill-building and development) and utilize such a wide range of modalities (e.g., traditional classroom training, self-directed workbook training, self-directed computer or Web-based training, on-the-job training, virtual reality simulation), it is necessary that training evaluation be flexible enough to take a variety of different forms. Some examples of these different forms may include skill-based tests (e.g., demonstrating the ability to properly operate forklift), behavioral measures

(e.g., utilizing newly-learned leadership skills), job performance measures (e.g., effectively prioritizing work tasks), efficiency measures (e.g., measuring how many more widgets were produced per hour after the training intervention), and utility analyses (e.g., how did this training intervention impact the organization's bottom line). The evaluation of training outcomes is complex and multidimensional (Gilad et al., 2007; Erffmeyer et al., 1991; Gentry et al., 1991; Scott, 1991). By far the most popular approach to the evaluation of training in organizations today is Kirkpatrick's (1976) framework of four 'levels' of criteria (Bates, 2004; Antle et al., 2008). Kirkpatrick's (1976, 1994) training evaluation model delineates four levels of training outcomes as follows: reaction, learning, behavior, and results. Kirkpatrick's classic evaluation model is a reference model specifying that any training (traditional or e-learning) can be evaluated at four progressive levels (Kirkpatrick 1998). According to this model, Level I (Reaction) is a measure of learners' reactions to the course. Evaluation at this level measures how the participants in a training program feel about their experience (affective) and whether they think they can use the concept learned and training materials (utility). The questions that might be asked are "Are they satisfied with what they learned?", "Do they regard the material as relevant to their work?", or "Do they believe the material will be useful to them on the job?" This stage of evaluation generally takes place while the training program is being conducted. Level One includes assessment of training participants' reaction to the training program content, methods and instructors. Level Two measures learning. Measures used for this level of evaluation are quantifiable indicators of the learning that has taken place during the course of the training. Learning is a measure of what trainees' have learned (immediate learning) and is defined as the principles, facts, and techniques that are understood and absorbed by trainees (retention). Level Three behavioral outcomes address either the extent to which knowledge and skills gained in training are applied on the job or result in exceptional job-related performance. Level three (Transfer) is a measure of changes in trainees' behavior (behavior demonstration) when they return to the job after the training program. Quantitative learning objectives do not typically indicate how the trainee will transfer that learning to job performance. Change on-the-job behavior is certainly the main goal of most corporate training programs. However, measuring this change is a more complex task than eliciting trainees' feelings or measuring their direct learning through test scores. Finally, Level Four outcomes are intended to provide some measure of the impact that training has had on broader organizational goals and objectives. Level four (Results) is a measure of the business outcomes that occur because they are doing their jobs differently (and hence organizational impact). This level of evaluation is generally very difficult if not

impossible as each organization has certain level of complexities in its operations. While reduced costs, higher quality, increased production, and lower rates of employee turnover and absenteeism are the desired results of training programs, most companies do not address this complex evaluation process.

The learning transfer factors diagnosis shows us the factors which should be enhanced and the factors which should be improved in order to make leadership training programs more efficient so as to generate results for the company. As various authors suggest (Holton and Bates, 2000; Burke and Hutchins, 2008), the results of the diagnosis should be utilized to introduce positive changes in the organization and to make training more efficient so that the investments be recuperated.

It is important that the training program assessment is conducted to obtain feedback for further improvement of the programs to develop the needed competencies for participants and training effectiveness. In recent practice, the typical focus of these measures has been on organizational level financial measures. Some studies have added Level Five which is a measure of the return on investment (ROI), the cost-benefit ratio of training. In this level, the Level IV data are converted to monetary values and then compared with the cost of the training program to obtain ROI. These measures can include profits, productivity, cost reduction and savings, customer satisfaction and employee morale. A study by Alvarez et al., (2004) found that evaluation measures that are found to be related to post-training attitudes are cognitive learning, training performance, and transfer performance. In their study, the training effectiveness variables found to be related to post-training attitudes are pre-training self-efficacy, experience, post-training mastery orientation, learning principles, and post-training interventions.

In brief, based on the literature review above, factors that enhance the training effectiveness include (1) training contents and methods, (2) selection of trainers, and (3) learners' motivation, valence and learning style; (4) organizational support; and (5) organizational learning culture. Training can have a wide variety of objectives and utilize a wide range of modalities, it is necessary that training evaluation be flexible enough to take a variety of different forms. Thus, in general, for the effectiveness of training evaluation, the following should be taken into account: (1) reaction, (2) learning, (3) behavior (4) results; and (5) if possible, return on investment (ROI).

Leadership Development Programs

One of the important human resource development activities is management development or leadership development program. Leadership training is an essential part of development plans in organizations. Leadership training programs help managers become more emotionally intelligent and equip them with tools to manage teams more effectively. Carla et al., (2011) found that the senior and middle managers exhibited a high intent to transfer, trust that their effort would generate an increase of their performance and they perceive no supervisor sanctions when applying training to the work place. These three factors act as facilitators to transfer. They, however, found some important barriers to the trainee applying the newly acquired skills to their workplace. The most important barrier is the lack of or low supervisor support which combined with the low amount of coaching received hinders the trainee's applying of the learning. It is thus recommended that the organization introduces human resources policies to improve their transfer system and overcome these barriers. Such concrete actions could consist of implementing a competency-based management and strengthening the leadership skills of the managers. The personal results which are negative and the lack of personal capacity to transfer also act as barriers and could be overcome by means of following-up with the trainees' processes (coaching, follow-up sessions).

A Brief Sketch on Training and Evaluation at the Ministry of Interior, Thailand

At the Ministry of Interior in Thailand, the in-service training programs have been generally the training programs to upgrade the knowledge and competencies of the selected participants for future promotion. The duration of the training programs can be from one-week to three months depending on what types of skills, knowledge and competencies to be developed. The recruitment and selection of internal participants has been through open calls for participation and endorsement by the direct supervisor of each selected participant. For high-level or executive development programs, the design is usually a combination of both in-class learning and field trip to expose the participants to some learning experiences in other countries and some individual action-oriented management project. Thus, for each of these programs, the length of the training will be extended to usually more than one month. The participants will need to go back to their workplace and apply the concepts they learned in class to the small action-oriented project and prepare the report to submit to the Ministry of Interior for assessment.

The evaluation exercises of such leadership development programs have been conducted to assess the following aspects: (1) the managerial or administrative capacity of the participants in terms of knowledge, skills and job performance abilities; (2) The quality of the training program with respect to training objectives, structure, content, and methods; (3) the achievement of the training program in term of knowledge, understanding,

applications of knowledge in the participant's job, work system improvement, and innovation; (4) the networking ability of the executive level participants after training program; (5) the development of the future prototype of the training program based on the training program assessment.

One of the Ministry officers in charge of training and development programs said that: "We cannot really say that our leadership development programs have been the compulsory requirement and hence main criterion for job promotion. There have been cases of those who were promoted without having gone through our middle-level management training programs. However, many of them did apply for such training after their appointment to the higher job position. If we can have our training and development programs accredited by the Civil Service Commission, then, our training programs will become more open to all public sector employees and certainly, the quality assurance is one of the measures to achieve such accreditation"

Based on some interviews conducted with the key informants who are in charge of the training activities for the Ministry, it is suggested that the direct supervisors of the training participants should be engaged and involved throughout the training process such as from the design stage of the program to monitoring the effectiveness of the programs by assessing the competencies of the training participants after they get back to their workplace.

This means that the training objectives must be clear to each group of training program participants and their direct supervisor. The learning environment must be developed in such a way that not only the interaction between the trainer/instructors and participants are taking place but also the training program must allow and encourage the interaction among the participants so that learning from each other is also enriched throughout the training program. The supervisory support for the training program should be secured before the participants join the training program. Action-oriented learning is found to be more appropriate for adult learning. The organizational learning culture in the workplace is also important in developing its human resources. The contextual factors such as compensation and leadership practices have been found to facilitate the learning transfer through their impact on post-training motivation. However, in the public sector, it is more difficult to make use of compensation as a motivational approach.

Effective leadership would be more feasible and desirable. We have had in-depth interviews with the key informants at the Ministry in several occasions when the actual executive development programs were conducted in the past 5 years. The Ministry has conducted these programs and required each senior officer to do an individual study or a small project that reflects how they have been able to apply the learning in classroom to their actual project at work. The individual study report is what

they have already done and written up as a case study which reflects their understanding of the concept learned to the actual experiences. Or, it can be a new proposal of what they will be implementing after the training program is completed. The latter will reflect how they apply the learning to develop some action plans with tentative resource management plan such as budget and time estimation for the project completion. This application part of the program ensures that individual trainee will bring back with them what they plan to implement in their job role to create impact on organization. Projects like this indicate how they have learned in the training program as well as what impact they can contribute to their organization

Thus, the strategic human resource development programs for the public sector organizations should take into account the demand and support of the direct supervisor on their subordinate's competencies profiles which would be aligned with the unit's strategies, the design of the training program which should enhance adult learning, and the follow-up or monitoring as well as the encouragement of the learning behavior of the participants by direct supervisors, trainers and peers or co-workers of the trainees after the training should be implemented to enable and sustain the desirable work behavior.

Challenges Ahead of the Ministry of Interior

It seems to be the trend that the training and development budget is gradually declining especially after the great floods in Thailand in 2011. In addition, it is observed that some people have got many opportunities for training while some never received any. Thus, it is a challenge for the Ministry of Interior to find a way to enhance the learning of individuals and keep up with the competencies demanded by the tasks and mission of the Ministry in the near future within the budget constraints. This concern is voiced by a key informant as follows: "Since we expect to have lower budget for training and development in the near future, it is very important that leaders at all levels and the HR division of the Ministry pay more attention on how to develop and coach their people to learn and become more competent in their current job and develop their potentials for the next level jobs when they are needed." (Panissara, 2012)

CONCLUSION

Human resource development activities are human capital investment by organizations. Thus, it is important that the training program implementation and assessment is conducted to obtain feedback for further improvement of the programs to develop the needed competencies for participants and training effectiveness. This study reviews

factors influencing training and evaluation effectiveness based on previous studies as to provide some guidelines to the in-service training programs conducted in the public sector organizations in Thailand. The Ministry of Interior in Thailand is taken as a case study. It is found that as a system, the training effectiveness is dependent on several factors such as the input into the training programs, namely, participant's and instructor's skills, knowledge and abilities, the training process itself which depends on the contents and methods used in the programs. The antecedents to the training effectiveness include the organization's training design aligned to its policies and strategies, the existing organizational culture of learning, and the support from the direct supervisor of participants in transferring the knowledge and   learning onto the workplace environment. Thus, organizations can benefit more from their human capital investment if they take these factors into account from the design stage to implementation and assessment activities.

ENDNOTES

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