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THE ROLE OF SELF EFFICACY AND TRAINING DESIGN WITH MEDIATING ROLE OF MOTIVATION IN TRAINING TRANSFER

Training is one of the most frequently used Human Resource Development (HRD) interventions. Positive transfer of training is defined as the degree to which the trainees effectively apply the knowledge, skills and attitudes gained in training. This newly learned knowledge and skills will be transferred to the work place can not be guaranteed even after the successful training programs. This has created increasing interest of researchers in understanding the transfer process. Notwithstanding that transfer issues have been studied from several decades, recent emphasis on workplace learning suggests that conventional training transfer research may be not adequate to understand the dynamics of performance improvement through training. *This paper reviews some major studies that were conducted in the past decades on the transfer of what employees learned from training programs back to their jobs. A conceptual framework is developed for this article to better present the "popular" constructs that have been tested empirically. The achievement is twofold. First, this review paper highlights that some individual, motivational and environmental factors are related to transfer of training. Second, some directions for further studies have been suggested.*

KEY WORDS : Training, training transfer, factors related to training transfer

I. INTRODUCTION

In this competitive world, recently organizations are heavily investing in training activities. As a result of this investment in training, workers are expected to apply what they have learned in the training to be applied in the real world as well as in the organization, (Salas and Cannon- Bowers, 2009), Training is one of the most reliable technique to enhance organizational and employee productivity. (Bhatti and Kaur, 2009)

To achieve organizational goals and improve the performance of the employees the training programs should be designed in such a way that a situation which is beneficial to both organization and employees. Both of them can achieve their goals only when the skills and knowledge which are learned during the training are transferred effectively to the work place. Acton(2003) argued that employees' development and training is necessary for advancement of the organization. For the employees who are working with organization these factors are critical crucial for the development of their skills and their career advancement.

Kauffeld and Lehmann Willenbrock(2010) argued that to face global competition, organization continuously invest considerable sum of money to improve employees knowledge, abilities, skills and attitudes. Therefore

researchers and training professionals have focused on factors related to trainee characteristics, training design and organizational factors etc.

Training transfer is the main concern for the researchers and practitioners as it is estimated that actually only a small part of training actually results in transfer (Baldwin and Ford,1988) Wexley and Latham (2002) suggest that immediately after training only 40 percent of training content is transferred. After six months transference falls to 25 percent and after one year it is only 15 percent. This shows that with the passage of time trainees are not able to retain and implement the knowledge they have acquired during the training program. It also indicates that whatever time and money invested in training is never fully realized.

The main issue in training and development is to involve employees in the learning which should be effective. To take the maximum advantage of the training it is important that the engagement of the employees should be active enough. (Robotham,2004), This involvement of the employees can be increased by making them realized that it will help them to improve their performance and the productivity of the organization as well.

Nikandrou et al.(2009) argued that for the success of any training program the most important thing is planning and for transfer at work too. They further suggested about the planning of training program, methods and means of training, extent of training, objective of training, place and equipment of training. These all are helpful in training transfer.

Training effectiveness have different criteria amongst which training transfer having the most vital impact. It ultimately leads to employees' improvement and performance of organization. In this context Colquitt et al.(2000) suggested some contextual and organizational factors and related training outcomes including organizational commitment and climate and career planning.

Besides these organizational contextual factors, trainees' individual factors which affect the training transfer have also been considered and examined (Colquitt et al.(2000) and goal orientation (Smith et al. 2008) , In addition, Holton (1996) has developed a model called Learning Transfer System Inventory (LTSI) Model.

Saks and Belcourt (2006) surveyed training professionals and reported that 62%, 44%, and 34% of employees apply training material on the job immediately, after six months, and after one year of training respectively. Subedi (2006) conducted a study in Nepal and, among other conclusions, mentioned that organizational culture and beliefs held by managers, supervisors and employees about training and development are likely to influence the process as well as the outcome of training.

Velada et al. (2007) explored the relationship between three types of predictors on transfer of training— training design, individual characteristics and work environment. The results suggest that in order to enhance transfer of training, organizations should design training that gives the trainees the ability to transfer learning, reinforces the trainees' beliefs in their ability to transfer, ensures that the training content is retained over time, and provides appropriate feedback regarding employee job performance following training activities.

Ajzen, I. (2002). reviewed updates and expanded the reviews of empirical studies on training transfer published by Cheng and Ho (2001), Salas and Cannon (2001), and Cheng and Hampson (2008). The authors identified 58 empirical studies since 1998 and integrated all the transfer variables that have been the subject of relevant

studies. The purpose was to move towards a new training transfer portfolio consisting of 13 categories of 36 sub-transfer variables. The purpose of this new training transfer portfolio is to facilitate the company's investment decision into transfer variables which: (1) can be influenced by the company itself (sphere of control); and (2) which are worth the organizational and financial effort (cost-value ratio).

Different researchers have identified varying factors that directly or indirectly affect the transfer of training. These factors are categorized as individual, situational, environmental or contextual and intervention design factors. This paper proposes a combination of variables coupled with the development of propositions based on the literature. However, the proposed model will need to be tested in future research. Thus the purpose of this paper is to provide a clear insight about the factors that affect the transfer of training. The central issue of training and development is to engage employees in effective learning. To maximize the utility of training, it is important that training deliverers actively promote such engagement (Robotham, 2004). The engagement of employees with training activities can be increased by motivating them and making them realize how training can help them improve their performance and organizational productivity. In addition, Nikandrou et al. (2009) argued that planning of the training program is very important for its total success, and therefore for training transfer at work. They further suggested that the goals and the extent of training, the training methods and means, as well as the training place and equipment, are important factors related to training program planning. All these help employees transfer training to the workplace.

With reference to the model of training transfer, a framework guiding the study is depicted in model. Briefly; the framework adopts the approach to delineate the major factors that affect training transfer. The main postulate of this model is that training transfer is the result of different factors and its effect upon real world. The model has four constructs: Trainee Characteristics, Training Design, Organizational factors and learning as a mediating factor.

Trainee characteristics : Individual traits of the trainee that affect training transfer.

Training Design : Characteristics of the training design that determine the degree of training transfer.

Motivation : Mediating role of learning in all the factors that affect training transfer.

Proposed Conceptual Model For Training Transfer



Most commonly, transfer of training has been defined as the application to the job of knowledge, skills and attitudes learned from training and subsequent maintenance of them over a certain period of time (Xiao,

1996). Given the fact that a gap between the employee training and the transfer of such training back to the workplace has been reported (for example, Baldwin & Ford, 1988; Facticeau *et al.*, 1995), researchers have attempted to identify the factors facilitating or impeding the transfer of training, whereas practitioners have focused on designing interventions that support the effectiveness of organizational training.

One of the dominant models in the field has been that put forward by Baldwin and Ford (1994) and this has also been tested by many empirical studies. According to this model, training effectiveness is contingent upon three set of variables. The first one refers to training design and delivery and includes principles of learning and learning goals, training content, its sequence and similarity with the actual job. The second one refers to trainee characteristics with a focus on ability, motivation to learn or to transfer, self-efficacy and certain personality characteristics. The third set of variables concerns work environment characteristics, mainly supervisor and colleague support and opportunities to use what has been learned. According to Kirkpatrick's (1994) taxonomy, trainee reactions, learning, behavior and organizational results constitute four major indicators that need to be assessed for training evaluation. Another influential conceptual model in the field has been Kontoghiorghes' (2004) framework, which, although falling within the three broad categories of the factors put forward by Baldwin and Ford, offers an expanded and more systemic model of the training framework in the sense that it incorporates work environment factors that relate not only to the immediate learning environment but also to employee and organizational performance in general (for example, high-performance team environment, organizational commitment).

It becomes apparent from this review of existing frameworks that the need to examine training transfer as a multidimensional construct has started gaining momentum. However, there are still calls for researchers to elucidate relationships among situational and individual factors (see, for example, Burke & Hutchins, 2007)

Self-efficacy

Because trainees' characteristics have been found to influence training outcomes, a variety of trainees' characteristics have been examined in relation to the transfer of training, among which self-efficacy constitutes a widely researched variable. According to Bandura (1986, 1997), self-efficacy alludes to an individual's beliefs in his/her capabilities to meet task-specific demands and to successfully carry out a particular course of action; it refers to a generative capability according to which resources and skills are tuned into successful performance. In this respect, self-efficacy is a cognitive process that is considered to play a motivational role towards performance improvement. The concept of self-efficacy has been advanced by drawing from social cognitive theory, according to which behavior is motivated and regulated by one's cognitions. Employees' self-efficacy beliefs are thus likely to influence their thoughts, emotional reactions, and motivational and behavioral patterns. If employees feel that they can take action to solve a problem, then they are more likely to do so, and they acquire a sense of control over their environment. Social cognitive theory attempts to explain organizational behavior in terms of reciprocal causation between an employee's unique personality characteristics, his/her behavior and the environment (Stajkovic & Luthans, 1998). Employees do not respond immediately to their environment, but they self-regulate and plan future courses of action while anticipating likely consequences of such actions (Bandura, 1997).

Perceptions of self-efficacy are particularly relevant to employees' organizational performance because employees with high self-efficacy will devote more effort to their planned future actions; for instance, a strong sense of managerial self-efficacy has been found to influence managers' organizational attainments (for example, Wood & Bandura, 1989). Self-efficacy is thus associated with the existence, or absence, of self-aiding thought patterns that determine the level and persistence of effort; for instance, trainees with confidence in their own skills are likely to redouble their efforts when faced with challenges (for example, Bandura, 1997); on the contrary, trainees with low task competence have been found to tend to withdraw their efforts (Elliott & Dweck, 1988). As regard training, employees with high confidence in the skills they possess are more likely to learn the contents of the training, have positive expectations about it and also have the intention to apply the newly acquired skills on the job (Quiñones, 1995).

Self-efficacy has been found to predict skill acquisition and maintenance (Chen et al., 2006; Ford et al., 1992; Gist et al., 1991; Tannenbaum et al., 1991), while it has also being associated with overall work performance (for example, Judge & Bono's, 2001, meta analytic study). In regard to training transfer, numerous studies have demonstrated that self-efficacy is positively related to transfer, or at least to intention to transfer (for example, Axtell et al., 1997; Chiaburu & Marinova, 2005; Gist et al., 1989; Saks, 1995; Stevens & Gist, 1997). Similarly, according to Switzer et al. (2005), trainees with low self-efficacy are less open to new situations and thus less likely to benefit from their participation in a training program.

Proposition : 1. Self-efficacy is positively related with training transfer.

Proposition : 2. Self-efficacy mediates the relationship between transfer design and transfer motivation.

Transfer Design

According to the training literature, there are several training design factors that influence transfer of training: instructional techniques and learning principles (e.g. Alvarez *et al.*, 2004); self-management and relapse prevention strategies (e.g. Tziner *et al.*, 1991; Wexley & Nemeroff, 1975) and goal setting (e.g. Gist *et al.*, 1990). Thus, organizations should design their training programs to include such factors that increase the likelihood of transfer. Accordingly, the LTSI measures such a factor, transfer design. Transfer design refers to the degree to which training has been designed and delivered in such away that provides trainees the ability to transfer learning back to the job (Holton *et al.*, 2000). Holton *et al.* (2000) argue that part of transfer design is the degree to which training instructions match job requirements. Trainees are more likely to transfer the training content to the work context when they perceive that the training program was designed and delivered in such a way that maximizes the trainee's ability. In the past, researchers found many training design factors (such as identical elements, general principles, stimulus variability and conditions of practices) that influence the transfer of training in the workplace. Thorndike and Woodworth (1901) highlighted the concept of identical elements and argued that the transfer can be maximized if training has more identical elements. With regards to general principles, McGhee and Thayer (1961) argued that transfer is facilitated when trainees are taught not just applicable skills, but also the general rules and theoretical principles that underline the training content. With reference to stimulus variability, Ellis (1965) argued that transfer is maximized when a variety of relevant training stimuli are employed. The concept of conditions of practice include a number of specific design issues, including massed or distributed training,

whole or part training, feedback and over learning (Baldwin and Ford, 1988). Recently, Nikandrou et al. (2009) suggested that training design and the specific method used, which are trainee-centered, play an important role in training transfer, but studies have seldom examined the impact of training design and method on training transfer. Lim and Johnson (2002) suggest that training design, content and instructional strategies must be related to the objective of transfer, whether near or far transfer, for learning transfer to be realized.

Holton developed the Learning Transfer System Inventory (LTSI) in which he introduced the transfer design factor (Holton, 1996). Transfer design develops understanding about the training program and shows a practical way in which training can be best used on the job. Transfer design can also be defined as the degree to which training has been designed and delivered to give trainees the ability to transfer learning to the job, and to which the training instruction matches the job requirements (Holton et al., 2000, p. 345). Trainees are more likely to transfer training content to the work context when they perceive that the training program was designed and delivered in such a way as to maximize the trainee's ability to transfer the training to the job (Holton, 1996, 2007). Holton et al. (2000) argued that part of the transfer design is the degree to which the training instruction matches the job requirements. When trainees have previous knowledge and practice of how to apply the newly learned knowledge and skills to the job, and when training instructions are congruent with job requirements, an increased likelihood of transfer should exist (Velada et al., 2007). In the same study, Velada et al. (2007) found that transfer design positively relates to transfer of training. They suggested that in order for organizations to ensure that training is effective, it should be designed to match employees' ability to learn the training material and to utilize the knowledge and skills accrued by employees during training outside of the learning environment. According to May and Kahnweiler (2000) trainers should provide opportunities to practice, in order to show the trainee the practical relevance of the training contents and to ensure transfer.

Furthermore, Kirwan and Birchall (2006) tested the Holton model and found a significant correlation between transfer design and performance self-efficacy. The transfer design factor requires trainers to include some practical example regarding the training transfer process. It may not be sufficient for the learner to learn the skills; there is a need to learn how to transfer the learned skill to the workplace.

Moreover, when the learner understands how he/she can use the learned skills in the workplace, the confidence level of the learner may increase (Bhatti and Kaur, 2009). The transfer design factor not only shows the learner how to transfer the learned skills to the workplace, but it also helps to increase indirectly the performance self-efficacy level of the learner. Hence, the role of the transfer design factor is two-fold. The transfer design factor is either a source of increase in the self-efficacy of the learner, or it directly influences the transfer motivation factor. The clarity of the transfer design factor can enhance the productivity of the training program, thus making it a focus for the trainer. It is recommended that researchers test empirically the effects of transfer design factor on performance self-efficacy and highlight other factors in training design that can improve the trainee efficacy level. Therefore, testing this relationship empirically will uncover new insight and will highlight the importance of training design factors in the training transfer theory. Thus, the following proposition is suggested:

P3. Transfer design has a positive relationship with performance self-efficacy.

Transfer motivation

Motivation is essential for training transfer. On the need to facilitate motivation to facilitate transfer, Latham (2007) notes, The time, money, and resources an organization devotes to ways of increasing a person's abilities are wasted to the extent that an employee chooses not to apply newly acquired knowledge and skills in the workplace. Major concerns in human resource development (HRD) theory and practice are the failure of training and the low return on investment because employees lack motivation. Although researchers have concluded that transfer motivation is essential for training transfer (Baldwin & Ford, 1988; Burke & Hutchins, 2007; Holton, Bates, & Ruona, 2000; Pugh & Bergin, 2006), a comprehensive review on the concept of motivation to transfer has not been done. Motivation to transfer (transfer motivation is a synonym) is defined as the trainees' desire to use the knowledge and skills learned in training on the job (Noe, 1986). Although work motivation theories indicate that motivation precedes action (see, inter alia, Kanfer, 1990; Latham, 2007; Mitchell & Daniels, 2003), empirical evidence examining whether transfer motivation precedes transfer action is not as clear. Correlation coefficients ranging from .04 to .63 suggest that this relationship needs further elaboration. In addition, the plethora of investigated variables related to transfer motivation deserves organization and structuring.

In his seminal work, Noe (1986) suggests motivation to transfer mediates the relation between learning and behavior change; furthermore, he suggests motivation to transfer is affected by environmental favorability. Theories have evolved since 1986, in that they have also largely addressed how transfer motivation before training is influenced by individual characteristics. Specifically, research has concentrated on relations of transfer motivation to attitudes toward training and motivation to learn.

Proposition 4 : Transfer Motivation mediates the relationship between performance self efficacy and transfer.

DISCUSSION AND FUTURE RESEARCH DIRECTION

The proposed model in this paper is mainly centered on different factors that influence training transfer. The aim of this paper is to highlight the effect of training design and individual factors on training transfer. A proposed framework is suggested for the effective training transfer at workplace, which ultimately will improve the overall performance of individual and organization as a whole. Nowadays, in the world of competition lots of investment is being made for training and return of the same is very low. Therefore, transfer of training is a critical issue today. Therefore, researchers have focused on the different factors affecting it to provide substantial feedback to trainees and managers also. Among different factors that affect training transfer, researcher should not avoid the importance of training design factors such as transfer design. Transfer design practically shows the way how they can apply their skills and knowledge they have learned to their workplace. In previous studies a very few researchers have include training design in their model, while most have underestimated the importance of these factors. In addition, Nikandrou et. al (2009) suggested that training design and the training method used, which ware trainee centered play a vital role in training transfer. But studies have rarely examined the impact of training design and training transfer.

Lim and Johnson suggest that the content of training design and instructional strategies must be related to the objective of transfer whether it is near or far transfer, for learning transfer to be realized. Actually the role of training design factors is two fold – either as a source of increasing self efficacy of the learner or directly

influencing the transfer motivation factor. Kirwan and Birchell (2006) suggested that training design influence performance self efficacy of trainee on the other hand Holton et al.(2000) is of the opinion that training design influences transfer motivation. Now, at this point it is important and required to understand, training design work either as a factor which improve self efficacy or a factor that that influence the level of trainees transfer motivation. This paper proposes that training design is basically a source of increasing a level of self efficacy of learners, but at the same time it has also been suggested that both relationships to empirically confirm training design either work as a source of increasing only self efficacy level of trainee only or directly influence the transfer motivation. The reason behind the empirical suggestion is to confirm that the exact position of training design factor in training design model. If training design relates more strongly with performance self efficacy (Kirwan and Birchall, 2006) then future researcher should analyze in detail the different dimensions of training design that can increase the efficacy level of trainees. In addition, if there is more correlation proves between training design and transfer motivation (Holton et al.2002; Velda et. al 2007) then element of training should be given more importance that can increase motivational level of trainee. When trainees will see how they can transfer training to the workplace the level of their confidence will automatically increase and they will believe in their capabilities to perform given tasks. Therefore in this paper we have suggested that training design is an important factor for the training transfer process. It not only explains how trainee should transfer the skills learned, but at the same time increase the self efficacy level of the learner.

It is always very important for any organization to access the impact of training on trainees and organizational performance. Many internal and external factors influence these organizational indicators. Hence it has become a kind of challenge to determine whether training alone has contributed significantly to organizational gains. Therefore, this paper aims to establish the linkage between probable variables that help to determine the training transfer.

In previous studies, researchers have explained the factors that that can affect the learners' self efficacy level. Kirwan and Birchell (2006) argued that transfer design influence the performance self efficacy. This paper highlights the importance of transfer design and proposes the mediating role of performance self efficacy between transfer design and transfer motivation.

In future, researchers should test empirically the proposed model to confirm the relationship between different variables that affect training transfer. In addition researcher should highlight those factors that can develop increase in performance self efficacy of the trainees. These factors could be instrumental i.e. internal and external rewards. Furthermore, researchers should highlight the mediating role of motivation to develop a strong training transfer theory.

This research will help HRD professionals to understand the role of transfer design, performance self efficacy and transfer motivation in the training transfer process. HRD professionals should develop training content that is similar to actual and basic job and explain practically to trainees how to transfer the skills learned to the workplace. This ultimately will increase self efficacy of the trainees' and develop positive reactions, which will intern maximize training transfer.

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