THE EFFECTS OF GOAL SETTING AND RELAPSE PREVENTION ON TRAINING TRANSFER OF LEADERSHIP SKILLS IN SIX THAI COMPANIES*

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Abstract: This research attempted to test the impact of interventions affecting training transfer. The two post-training interventions – goal setting and relapse prevention – were tested and compared for their effects on training transfer of the leadership skills. The leadership behaviors served as the dependent variables. Participants (n = 80) included managers from various departments within six manufacturing and trading organizations in Thailand. According to the research findings, the two interventions impacted on the training transfer of leadership skills. Relapse prevention was found to have a higher level of effectiveness than goal setting on training transfer of leadership skills. Discussions include the implications of the findings for training practices using combined goal setting and relapse prevention in the post-training process.

Keywords: Training Transfer, Post-Training Intervention, Goal Setting, Relapse Prevention

Introduction

The competitive business environment is a major challenge in every organization to improve its performance in order to ensure its position in the marketplace. Within the changing business environment, the equality of human resources is one of the essential parts of this competitiveness. It is widely accepted that the performance and potential of employees can derive long-term competitive advantages. Many organizations strive to enhance the performance of their human resources through various kinds of human resource development strategies and activities. According to Ford (1997) and Sims (1998), training is considered as a strategic tool of improving employees' capabilities to derive future benefits for the organization. Besides training activities, ensuring that trained skills are used in the workplace or transferred to the job remains of critical importance for human resource practitioners and researchers. The concept of *training transfer* emphasizes the application of learning to the workplace and how employees improve in their work after receiving the necessary training.

According to Gass, Goldman, and Priest (1992), prior to sending an employee to a training program, the organization needs to ensure that the training program is developed according to the requirements of job responsibilities that the employee would eventually perform in their work. This is why the effects of a training program on job performance need to be continually analyzed to make sure that the training program is actually making a positive impact on the employee's outcomes and, if not, then the training program needs to be changed or modified. Although there is a general rise in awareness about the benefits of employee training programs, there are some concerns regarding the whole training process from a cost-benefit point of view. Baldwin and Ford (1988) posited that the ultimate success of training transfer actually rests on the employee who attended the training program as it all comes down to how strongly he or she feels that the training program would actually add to his or her skill set and how strongly he or she wants to put all that training into on-the-job (OJT) behaviors. According to Noe (1986), organizations can also play a major part in improving the motivation of an employee by finding out what motivates him or her. This is so because a motivated employee would be more inclined to put all the learning from the training program into OJT behavior.

Training programs that focus on improving the leadership potential of employees by teaching communications skills and other such skills are also faced with the challenge of training transfer (Marx, 1982). This is particularly the case with those training programs that focus on an employee's decision making, thinking, and judgment skills because even the people conducting these training programs are not confident about the extent to which these training programs actually translate into a positive change in OJT behavior. Santos and Stuart (2003) found that almost 65% of the managers that received training via training programs actually reverted back to their prior management styles as soon as they got back to work. The research also showed that managers are much more prone to procrastination when it comes to application of skills learned during training programs onto the job. This is a particularly worrying sign for organizations as the majority of training programs being designed and executed are for managerial level staff. Sims (1998) confirmed that around a quarter of all budgets spent on training are for managerial staff. The tilt of training programs towards managerial staff is due to the fact that managers have high influence in the activities of the company and, thus, can demand the creation of a training program (Kane, Abraham, & Crawford, 1994; Thompson, Mabey, & Storey, 1998).

The concept of training transfer has raised the awareness of human resources development (HRD) practitioners and experts of the need to look at the effectiveness of training. However, looking at the problem from a more holistic perspective, including an in-depth examination of pre-training and post-training factors is not frequently examined in the literature. Some researchers suggested that post-training interventions need to be explored (Baldwin & Ford, 1988). However, the empirical investigation in this area remains limited (Burke & Baldwin, 1999). Therefore, the lack of evidence on the interventions and factors affecting training transfer justifies the need for further investigation into the

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linkages between participation in learning activities, post-training interventions, and training transfer. The current investigation attempted to bridge the knowledge gap and add to the body of literature on interventions affecting training transfer, with the value added aspect of being conducted within the Thai context.

This research examined the impact of interventions on training transfer; more specifically, it sought to find out how the interventions of goal setting and relapse prevention impact on the training transfer of leadership skills, as measured by subordinate perceptions, six months after training.

Theoretical Framework

The term 'training transfer' refers to the extent to which a trainee or employee applies one's trained skills to the job, and that trained skills can be applied, depending on the nature of the skills learned (Broad, 1997). Similarly, Baldwin and Ford (1988) defined the positive transfer of training "as the degree to which trainees effectively apply the knowledge, skills, and attitudes gained in a training context to the job" (p. 63). By the same token, the term training transfer can be described as the trained skill that is repeated in a given context by the trainee (Detterman, 1993). When transferring newly acquired skills, the continuous learning approach must be kept in consideration. Since information and work requirements vary over time, therefore, the skills required must be updated as and when required. In short, learning new skills and then transferring them to the job setting is a continuous and recurring process and, thus, helps in applying trained skills in various contexts.

By training employees in different psychological strategies (e.g., cognitive or behavioral), organizations can facilitate the training transfer process of employees whereby employees manage to apply a greater amount of skills that they have learned in the training program. *Goal setting* is one of the effective post-training interventions. According to Marx (1982), participants of a training program can target specific skill sets that they want to achieve and master them to solve the situations that used to have them revert back to their original work behavior or trigger situations. Employees need to be continually monitored after coming back from training programs for potential changes in work behavior. Moreover, appropriate steps can be taken to facilitate better training transfer among them. Past research had demonstrated that the best method of ensuring the highest level of training transfer is by having employees list out a roadmap or action plan defining what activities they would perform to include the newly acquired set of skills into their work behavior (Taylor, Russ-Eft, & Chan, 2005; Noe, 2008). In order to apply the newly trained skills in the work context, goal setting is an intervention that provides a process for participants to establish specific, challenging goals and targets (Stevens & Gist, 1997; Gist, Stevens, & Bavetta, 1991; Wexley & Baldwin, 1986).

Marx (1982) worked on using the general ability of people in managing their own behavior for developing a strategy called *relapse prevention* aimed at facilitating the process of training transfer. Although the theory has been picked from work done earlier on facilitating drug users from their addictions, it works well in the organizational context as it facilitates people in confronting a host of challenges, both from external sources as well as within themselves, to adopt a long-term change in behavior. The relapse prevention strategy is divided into four stages, as follows:

1. Employees who attended training programs are informed about their possible reversion to their old behavior and that it is a normal part of the learning process.
2. These trainees are then made aware of possible events or scenarios that might cause them to revert back to their old behaviors.
3. Trainees undertake strategies to prepare them to effectively deal with the above mentioned scenarios.
4. Employees are then taught to self-congratulate themselves when they successfully accomplish the first three steps.

This four-stage process helps employees in better anticipating different scenarios as well as equips them with actions that will help in countering these scenarios. If employees manage to successfully counter the situations, then they become more resistant to such situations, and that is the main objective of relapse prevention. While this process has been applied by various researchers, Burke and Baldwin (1999) claim to be the first researchers who used Marx's relapse prevention model in an empirical study. The model they used consisted of the following seven steps:

Step 1. Set a skill maintenance goal.
Step 2. Operationally define a slip and relapse.
Step 3. Explicate the advantages/disadvantages of applying new skills.
Step 4. Learn specific transfer strategies.
Step 5. Predict first slip.
Step 6. Create coping skills.
Step 7. Monitor progress back on the job.

Method

Participants

The design was a quasi-experimental field study. The participants consisted of 80 managers from various departments of six allied companies within a manufacturing and trading organization in Thailand who attended a leadership development program held in February and March 2012. The leadership development program aimed to develop the following leadership competencies: 1) developing synergistic teamwork, 2) coaching and developing people, 3) persuading and energizing people, and 4) building a trusting work climate.

The participants' self-selected training dates were assigned to three levels of the training transfer treatments: control/no treatment (n = 27), relapse prevention intervention (n = 26), and goal setting intervention (n = 27). One month after the completion of the three-day training course, the participants in the two post-training transfer of training conditions attended a series of four transfer sessions conducted by the researcher. The participants in the treatment groups were unaware of the different treatments. The control group was treated as a waiting-list control group. The research design is presented in Table 1.

Instrumentation

The leadership behavior questionnaire (LBQ) was used to measure the research variable – the training transfer of leadership skills (LBQ score). In this study, the focus of selected measures such as the leadership behavior questionnaire (LBQ) was on the experiences of Thai managers and their subordinates. LBQ validity was established using a panel of experts. Initially, it was developed by a committee of leadership development experts comprising a senior executive who led leadership development programs and two representatives from the human resource department, in consultation with a trainer who delivered the training courses. After developing the objectives of the leadership development program, the committee generated item statements for the questionnaire. In this procedural step, the targeted competencies and behaviors of leaders were transformed into statements. Discussions centered on writing statements, selection of appropriate scales of measurement, questionnaire layout, format, and question ordering. The LBQ provided a set of leader-centered behaviors (in Thai) which subordinates were asked to rate, on a scale of 1 to 5 (1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, and 5 = *strongly agree*). Permission to use the questionnaire in this study was granted by the committee. Subsequently, a draft of the LBQ was completed in preparation for establishing its validity and reliability.

Following approval of the draft, the researcher conducted a pilot test using 22 subjects not included in the sample in an attempt to find out if the questionnaire consistently measures what it purports to measure. The data derived from the pilot test was analyzed using SPSS to obtain Cronbach's alpha values as a measure of internal consistency to reflect how well each item correlated with the entire scale. The general rule is that the Cronbach's alpha should not be lower than 0.70. The computed Cronbach's alpha coefficient of the LBQ was 0.858.

Treatments

Interventions assumed to impact on training transfer may actually be presented before, during, or after the training experience. This study selected post-training interventions because the training program was already in place and, therefore, it was not possible to control the interventions before and during training.

The first of four *goal setting* sessions consisted of a 20-minute review of the learning points covered during training; a 15-minute discussion of the LBQ that would be used by the trainees' subordinates to assess the transfer of their leadership skills; a 25-minute lecture on goal setting and how it can increase transfer of training; and a 60-minute goal setting activity in which each participant set an outcome goal to attain in terms of a total score on the LBQ. The second and third monthly goal setting transfer sessions consisted of a 60-minute discussion on the application of the learned skills. Each participant was asked to describe, in writing, one situation where the learned skills had been applied successfully during the last month. The participants discussed the successful experiences within the group. This was followed by a 30-minute goal commitment exercise where the participants stated publicly their outcome goal on the LBQ, and what they want to do during the next month or weeks in order to attain the goal.

For *relapse prevention*, Burke and Baldwin (1999) claimed to be the first researchers to use Marx's relapse prevention model in an empirical study. The model they used consisted of seven steps (mentioned earlier): 1) Set a skill maintenance goal; 2) Operationally define a slip and relapse; 3) Explicate the advantages/disadvantages of applying new skills; 4) Learn specific transfer strategies; 5) Predict first slip; 6) Create coping skills; and 7) Monitor progress back on the job.

In this study, the trainees received a self-management plan worksheet to help them personalize the self-management process according to their individual needs and strengths. The first of four relapse prevention sessions consisted of a 20-minute review of the learning points covered during training; a 15-minute discussion of the LBQ that would be used by their subordinates to assess the transfer of their leadership skills; a 25-minute lecture on relapse prevention and how it could increase transfer of training; and a 60-minute activity involving the first five steps of the relapse prevention process, as follows:

1. Trainees set the targeted behaviors that they wanted to develop/maintain.
2. Trainees were made aware of the possibility of relapse and were taught that temporary slips are the predictable outcomes of trial and error learning.
3. Trainees explicated the advantages/disadvantages of applying new skills.
4. Trainees were provided with coping skills so that they could deal effectively with potential threats. Such skills included the following:
    - Understand the relapse process to help trainees understand how self-control strategies can enhance maintenance of behaviors.
    - Recognize differences between training and work settings.

- Create an effective support network on the job.
- Expect subordinates to be skeptical of their new behaviors.
- Identify high risk situations to remind trainees about specific situations that have previously resulted in difficulty.
- Avoid implementing new skills in overwhelming situations.
- Recognize seemingly unimportant behaviors that can lead to errors.
- Reduce emotional reactions that interfere with learning.
- Retain self-confidence after making temporary errors to assist trainees in maintaining personal worth, despite imperfect performance.
- Diagnose specific support skills necessary to retain the new behavior.
- Review lifestyle patterns that interfere with skill retention.
- Schedule time to mix required and desirable activities.
- Identify organizational supports for skill retention.
- Create meaningful rewards/punishments when they do not exist naturally that will be self-administered.

5. Trainees' pinpointed situations that were likely to affect their attempts to maintain the new behaviors (predict the first slip).

The second relapse prevention session consisted of a 60-minute discussion on the successful application of the learned skills (step 6: create coping skills and step 7: monitor progress back on the job) and a 60-minute lecture and activities on relaxation and stress management techniques as coping skills so they can deal effectively with threats. The third relapse prevention session consisted of a 60-minute discussion on the successful application of the learned skills and a 60-minute lecture and activities on mindfulness training and effective listening techniques as coping skills. In the last session, trainees shared their experiences of accomplishment at using the learned skills in problematic situations.

Data Collection Procedure

Six months following the training, the participants' leadership behaviors at work were measured as feedback by their subordinates using the LBQ. The score from the LBQ is a dependent variable – the training transfer of leadership skills from the perspective of subordinates in the long-term period. LBQs were sent to the same target groups one month after training via e-mail.

Data analysis

The effect of the goal setting and relapse prevention interventions on the training transfer of leadership skills was tested six months after training. GLM multivariate analysis of variance (MANOVA) and one-way ANOVA followed by post hoc Scheffé comparisons were used to assess the difference between 1) the LBQ difference scores of the treatment group that received the goal setting intervention and the LBQ difference scores of the control group 2) the LBQ difference scores of the treatment group that received the relapse prevention intervention and the LBQ difference scores of the control group and 3) the LBQ difference scores of the treatment group that received the relapse prevention intervention and the LBQ difference scores of the treatment group that received the goal setting intervention.

Results

A total of 88 trainees attended the leadership program; however, eight trainees were excluded from data analysis due to incomplete data and voluntary withdrawal from the research process. Ultimately, the data obtained from 80 remaining trainees (n=80) underwent statistical analysis. A total of 51 males (63.75%) and 29 females (36.25%) participated in the study. Twenty-four trainees (30%) held commercial-based jobs, 30 trainees (37.50%) held factory-based jobs, and 26 trainees (32.50%) held office-based jobs. Nineteen trainees (23.75%) managed a unit with less than 10 subordinates, 30 trainees (37.50%) managed a unit with 10-20 subordinates, and 31 trainees (38.75%) managed a unit with more than 20 subordinates. The trainees were slotted into two treatment groups and one control group. Twenty-seven trainees (33.75%) composed the treatment group that received the goal setting intervention, 26 trainees (32.50%) composed the treatment group that received the relapse prevention intervention, and 27 trainees composed the control group which did not receive any treatment/intervention.

In order to test the study's hypotheses, a 3 ('goal setting group' vs. 'relapse prevention group' vs. 'control' group) x 2 (pre-LBQ scores and post-LBQ scores) GLM multivariate analysis of variance (MANOVA) for repeated measures was conducted. Table 2 presents the means and standard deviations of the LBQ scores (pre- and post-treatment) as a function of the types of groups ('goal setting group', 'relapse prevention group', and 'control group'). Results from the MANOVA showed that there was no overall between-group [goal setting (M=3.81) vs. relapse prevention (M=3.89) vs. control (M=3.73)] effect for the LBQ scores combined (pre- plus post-treatment), $F(2,77)=1.52$, $p>.05$.

The multivariate test of significance showed that the within-subjects repeated measure of 'leadership' was significant, Pillai's Trace $F(1,77)=11.77$, $p<.01$. Thus, there was a significant difference in the LBQ scores pre- and post-treatment for the three groups combined. Test of within-subjects contrasts showed that there was an increase in LBQ scores from pre-treatment (M=3.78) to post-treatment (M=3.83) for the three groups combined. This increase of 0.05 points was significant, $F(1,77)=11.77$, $p<.01$. The multivariate test of significance showed that the interaction effect of

'leadership x treat' was significant, Pillai's Trace F(2,77)=34.88, $p<.001$. This interaction is depicted in Figure 1.

Test of within-subjects contrasts showed that there was an increase in LBQ scores from pre-treatment (M=3.78) to post-treatment (M=3.83) for the goal setting group – a mean increase of 0.05 points. For the relapse prevention group, there was also an increase in LBQ scores from pre-treatment (M=3.78) to post-treatment (M=3.99) – a mean increase of 0.21 points. However, for the control group, there was a decrease in LBQ scores from pre-treatment (M=3.78) to post-treatment (M=3.68) – a mean decrease of 0.10 points. These differences in LBQ scores between the goal setting group, the relapse prevention group, and the control group as a function of the training transfer treatment (pre-treatment versus post-treatment) were highly significant, $F(2,77)=34.88$, $p<.001$.

While the test of within-subjects contrasts showed that the differences in LBQ scores between the three groups varied significantly as a function of the training transfer treatments (pre-treatment vs. post-treatment), it provided no information as to which group's pre- and post-treatment difference scores were significantly different from which other groups'. Therefore, in order to test whether the changes in LBQ scores from pre-treatment to post-treatment were similar or significantly different for the three groups, the pre- and post-treatment difference scores were subjected to a one-way ANOVA followed by post hoc Scheffé comparisons. The results of the analysis indicated that the three groups differed significantly on their pre- and post-treatment difference scores, $F(2,77)=34.88$, $p<.001$. Post hoc Scheffé comparisons showed that the increase in pre- and post-treatment difference scores (M=0.20) for the relapse prevention group was significantly higher than those of the goal setting group (M=0.05) and the control group (M=-0.10) ($p<.001$). The result also showed that the increase in pre- and post-treatment difference scores (M=0.20) for the goal setting group (M=0.05) was significantly higher than those of the control group (M=-0.10) (p<.001).

Thus, it can be concluded that the training transfer treatment was most effective in improving LBQ scores for the relapse prevention group than for either the goal setting or control group. Moreover, the training program was more effective in improving LBQ scores for the goal setting group than for the control group.

Discussion

The current study compared two training transfer interventions – goal setting and relapse prevention – on the outcomes of the training transfer of leadership skills as measured by the trainees' subordinates' perceptions of the leadership behaviors of their managers (trainees), using the leadership behavior questionnaire (LBQ), before (LBQ1) and after (LBQ2) the interventions. Participants (n = 80) consisted of managers in six allied Thai companies located in Bangkok and suburbs.

According to the research findings, both treatments had an impact on the training transfer of leadership skills. In descriptive statistics, when compared the scores of pre-treatment (one month after training) and post-treatment (six months after training), the LBQ scores which measured the learning transfer of leadership skills of the trainees in the treatment group that received the goal setting and relapse prevention interventions increased. On the other hand, the LBQ scores in the control group which did not receive any intervention decreased. The LBQ difference scores (LBQ2 – LBQ1) in this study reflected that the participants in the treatment group who received the goal setting intervention performed better than participants in the control group based on significant differences in LBQ scores.

The impact of goal setting as found in this study is supported by previous researches such as those conducted by Taylor and colleagues (2005) and Noe (2008) which concluded that the best way to ensure the highest level of training transfer is by having the trainees list out a roadmap or action plan defining what activities they would perform to include newly acquired skills into their work setting. In a similar vein, other past research concluded that goal setting is an intervention that provides a process for participants to establish specific, challenging goals and targets, and help them to apply newly trained skills on the job (Stevens & Gist, 1997; Gist et al., 1991; Wexley & Baldwin, 1986).

Relapse prevention was also found to have an impact on the training transfer of leadership skills. More specifically, the post-treatment LBQ scores of trainees who received the relapse prevention intervention increased, compared to their pre-treatment scores. This outcome was supported when tested with the between-subjects approach. The participants' LBQ scores six months after training reflected that the participants in the treatment group that received relapse prevention intervention performed better than those in the control group and the treatment group that received the goal setting intervention, based on significant differences in LBQ scores.

As the initial purpose of relapse prevention was to prevent an individual from high risk situations in the workplace, the relapse prevention training provided a series of self-maintenance strategies that helped the individual become increasingly in control of his or her actions in the post training setting. The findings of the current study is consistent with that of Frayne and Geringer (2000) who asserted that the concept of self-management is one of the most success-ensuring tools which allow the individual to mobilize his or her energy, structure one's environment, enhance level of motivation, and direct behaviors toward goal attainment and excellence.

This study found that relapse prevention showed higher effectiveness than goal setting, according to a

significant difference when comparing LBQ differences scores (LBQ1–LBQ2) with the control group. The advantage of relapse prevention over goal setting supported the finding of Gist et al. (1991) who concluded that self-management training results in greater maintenance than goal-setting training. Relapse prevention training is provided to individuals who possess a series of self-maintenance strategies that help the individual become more in control of his actions in the post training setting.

As relapse prevention was developed in the field of clinical psychology in order to help people recover from addictive behaviors and effectively deal with difficult situations without relapsing into their former addictive behaviors, it needs less external reinforcements than goal setting as this was originally designed to operate in a low supportive environment like clinical setting. Therefore, Marx's adaptation of relapse prevention in the work setting provides better results than goal setting when trainees face unsupportive work conditions. It means that the treatment group that received the relapse prevention was equipped with self-control strategies regardless of the motivation they received or work environment they were involved. However, this finding is not consistent with those of Wexley and Baldwin (1986) and Richman-Hirsch (2001) which demonstrated that goal setting yielded better results than relapse prevention in helping participants maintain their target skills over a two-month period.

Implications of the Findings for Training Practices

Broad and Newstrom (1992) proposed a transfer matrix, a strategy to manage training transfer that focused on three time periods (before, during, and after training) and on the responsibilities of three separate organizational roles (the role of the manager, trainer, and trainee).They also discussed the application of relapse prevention on training transfer and suggested that there are relapse indicators in the workplace that reduce training transfer.

This study also found that goal setting and relapse prevention are effective tools in increasing the training transfer of leadership skills as post-training interventions on the responsibilities of trainer and trainee where there was little opportunity to control the manager or the pre-training factors such as design and contents of the training program, motivation of trainees, etcetera. The two interventions showed different effects on the training transfer. It had been mentioned that the combination of goal setting and relapse prevention yielded better results on increasing trainees' skill transfer, compared to using each strategy alone (Gist et al., 1991). Therefore, adding a goal setting step into the relapse prevention process may increase its influence. According to the findings of this study with guidelines from the transfer matrix (Broad & Newstrom, 1992), the proposed strategies to be added as post-training interventions is for the trainer/administrator and trainee to provide the following items:

Short-term learning goals for the training program: On completion of the training process, trainees should prepare their own tasks according to the requirements of the program (for example, "I will complete all course follow-up assignments in the given time"). Then they should state how they would implement their acquired knowledge in the work setting. They should keep plan copies with their trainers who would contact them after a certain time to determine the degree to which learning has been applied on the job by the trainees.

Longer-term goals that focus on the behavior changes: The goals will be set according to the objectives of the training program by applying a 'start-stop-stay' concept. *Start* is a set of positive behaviors that they will start practicing (for example, "I will start coaching sessions with my subordinates immediately"). *Stop* is a set of negative behaviors that they will stop doing (for example, "I will stop worrying about the future by focusing on the present instead). *Stay* is a set of behaviors that they would like to maintain (for example, "I will continue seeking feedback from my subordinates and continue to review my progress every month.").

The trainees should list out the situations where they will be required to use their trained skills (such as time constraint, high demands, difficult customers or the other stressful situations). This requires the trainees to identify and recognize the situations where the newly learned skills are relevant, useful, and can be applied for performance improvement. The description also needs an explanation of what skills they will apply in those situations (such as stress management, anxiety reduction, time management, active listening, etc.) and the results that they expect from an improvement in their performance (such as enhanced team synergy, trusting work climate, motivation of team members, etc.)

Supportive network in the form of small group activities: According to the benefits of group dynamics, the extent to which trainees begin to see opportunities for transfer in various situations from the sharing of both successes and failures in goal setting and relapse prevention groups will be a good opportunity for them to observe others who are close to them apply the training at work. The power of experience sharing within the groups will yield more positive effects on the training transfer.

Conclusion

This study found evidences to identify specific interventions and factors that can affect training transfer. Today, most of the learning and development budget is used for classroom training and only a small portion of budget is used for social learning and workplace learning. These situations lead to the need for a critical review at the roles and activities around learning and development activities. The findings of this study supports that implementing the post-training interventions, goal setting and relapse prevention, increased the learning transfer of leadership skills. Examining the interventions and factors that were theorized to affect training transfer and examine

them in quasi-experimental studies and the survey data provide areas where this study supports previous researches and raise where new questions and recommendations for implementation.

Table 1: Research Design

		Pre-treatment		Post-treatment
Treatment group 1: Goal setting	Non-random	O1	X1	O2
Treatment group 2: Relapse prevention	Non-random	O3	X2	O4
Control group	Non-random	O5		O6

Table 2: Means and Standard Deviations of LBQ Scores as a Function of the Type of Group ('Goal Setting Group' vs. 'Relapse Prevention Group' vs. 'Control Group')

	Goal setting		Relapse prevention		Control Group	
	Mean	SD	Mean	SD	Mean	SD
LBQ scores (pre-treatment)	3.78	.32	3.78	.31	3.78	.29
LBQ scores (post-treatment)	3.83	.35	3.99	.36	3.68	.31

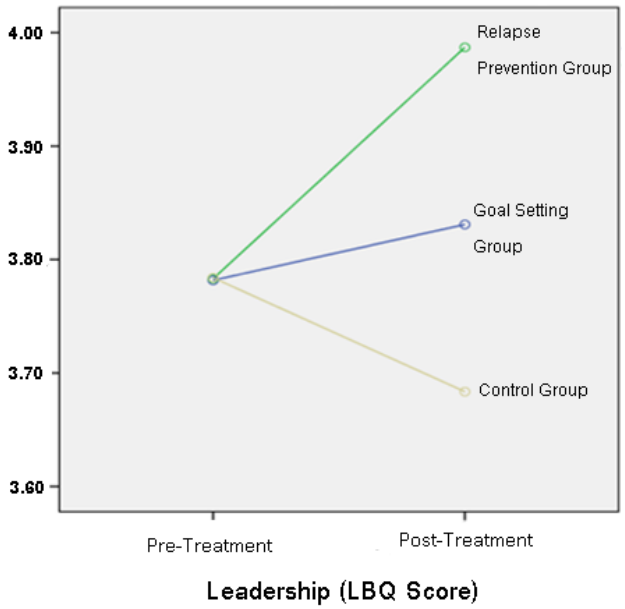

Figure 1: Interaction between Leadership (Pre- and Post-Treatment) and Treatment ('Goal Setting Group' Vs. 'Relapse Prevention Group' Vs. 'Control Group')

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