23

Elucidating the Effect of Post-Training Transfer Interventions on Trainee Attitudes and Transfer of Training: A Mixed Methods Study

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Introduction

Training and development play an important role in knowledge management, especially in identifying employees' knowledge and skill gaps (i.e., training needs analysis), and also in designing and providing suitable training programs (i.e., training design and delivery) to reduce those gaps (Buch et al. 2014; Sung and Choi 2014). Training may offer two benefits. First, an organization can help employees to acquire, transfer, create, and apply the new knowledge and skills necessary to help them at work. Second, the new knowledge and skills may help the organization ensure the success of a knowledge management program, which may subsequently contribute to organizational competitiveness and performance (Khaksar et al. 2011; Rechberg and Syed 2013; Zhao et al. 2014). However, it has been argued that learning acquired

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through participation in a training program has a limited impact on individual development and workplace performance in the absence of actual transfer of training (Baldwin et al. 2011, 2017; Blume et al. 2010).

There has been a growing interest in the notion of transfer of training within research and practice of training and development (e.g., Cheng and Hampson 2008; Johnson et al. 2012; Rangel et al. 2015; Saks and Burke 2012). Much effort has been invested in the study of the transfer of training, including the examination of post-training methods that may be deployed after training to enhance the transfer of that training, called *post-training transfer interventions* (Salas and Cannon-Bowers 2001; Tews and Tracey 2008). Two post-training transfer interventions that have dominated the literature over the last two decades are relapse prevention (RP) and goal setting (GS). The literature suggests that RP and GS interventions have an impact on attitudinal and behavioral outcomes of the transfer, which in turn impact the efficacy of training and subsequent organizational performance (e.g., Brown and Warren 2009; Burke and Baldwin 1999; Johnson et al. 2012; Pattni et al. 2007; Richman-Hirsch 2001).

Although RP and GS studies have dominated the post-training transfer interventions literature, there are several key issues that remain underexplored. First, significantly less research examines the process through which post-training transfer interventions are linked to training transfer, and the extent to which trainee attitudes mediate this process. Previous studies (e.g., Hutchins 2004; Latham and Seijts 1999) have also extensively focused on self-efficacy or a broad version of trainee motivation to explain this mechanism, without taking other important attitudes (e.g., readiness to change, autonomous motivation to transfer) into account. Second, the literature does not clearly explain the differential effectiveness of RP and GS, where most of the studies show contradictory results (e.g., Gist et al. 1991; Richman-Hirsch 2001). As a result, not only do we know little about the mechanism in the relationship between post-training transfer interventions, trainee attitudes, and transfer of training, we also know little about the distinction between RP and GS in influencing these attitudes and the transfer of training. Third, the literature does not shed much light on the nature of the relationship between post-training transfer interventions, trainee attitudes, and transfer of training in developing countries. Most studies have only focused on developed countries, such as Canada (e.g., Gaudine and Saks 2004), Israel (e.g., Tziner et al. 1991), and the United States (e.g., Latham and Brown 2006). Given that post-training transfer interventions are key to enhancing transfer of training, and the latter becomes the core element of a successful training program, the absence of studies exploring the interaction between these constructs in developing countries constitutes an important gap in this research area.

This study attempts to address these issues by examining the effect of both RP and GS on readiness to change, autonomous motivation to transfer, and transfer of training. At the same time, it also assesses the potential role of readiness to change and autonomous motivation to transfer as mediators to elucidate the mechanism linking post-training transfer interventions and transfer of training. The study is conducted in Indonesia, a major developing country in Asia, where training and development is regarded as a key tool to produce qualified human resources and to support long-term economic development (Bennington and Habir 2003; Habir and Larasati 1999). Conducting this study in the Indonesian context may add insights and develop greater contextual understanding to the literature regarding the relationships between post-training transfer interventions, trainee attitudes, and transfer of training.

The present study focuses on the following research question: *How do different post-training transfer interventions (i.e., RP and proximal plus distal GS) affect trainees' readiness to change, autonomous motivation to transfer, and transfer of training?* In this question, "do" means there is a need to know the direct and indirect effects of post-training transfer interventions on trainee attitudes and transfer of training, and "how" explains the process through which such effects occur (i.e., the mechanism). A sequential mixed methods approach is required, where a cognitive experiment (i.e., quantitative approach) is conducted to answer the "do" and is followed by interviews (i.e., qualitative approach) to answer the "how."

The chapter is organized as follows. First, we describe the theoretical background of the study and develop a series of hypotheses that offer a richer account of the relationships between post-training transfer interventions, trainee attitudes, and transfer of training. Second, we describe the research methodology and report the findings derived from the quantitative and qualitative data collected in Indonesia. Finally, we provide a discussion of the implications and contributions of the study.

Theoretical Background and Hypothesis

A General Overview of the Post-Training Transfer Interventions Literature

Post-training transfer intervention is defined as a set of procedures implemented after a training activity to help trainees transfer their newly learned skills to the workplace context (Tews and Tracey 2008; Tziner et al. 1991). Two post-training transfer interventions widely investigated in the transfer of

training literature are relapse prevention and goal setting. These are supplemental meta-cognitive techniques that help trainees to strengthen their awareness of environmental stimuli and use this stimulation to structure, understand, and manipulate their own cognitive processes (Wexley and Baldwin 1986).

In particular, RP is defined as a self-management intervention that teaches trainees strategies to overcome the potential threats (known as a high-risk situation) that impede the generalization of the newly learned skills (Marx 1986). GS deals with identifying a set of specific, challenging, and difficult goals to help individuals express attention, organize effort, increase determination, motivate strategy development, and improve overall performance (Latham and Locke 2007). There is ample evidence to show that RP and GS influence trainee attitudes (i.e., self-efficacy, motivation to transfer) and transfer of training (e.g., Brown and Latham 2002; Brown and Warren 2009; Johnson et al. 2012; Latham and Brown 2006; Latham and Seijts 1999; Milne et al. 2002; Richman-Hirsch 2001; Pattni et al. 2007; Wexley and Baldwin 1986).

There are, however, three key limitations in the literature. First, most research has tended to focus on the direct effect of post-training transfer interventions on trainee attitudes (e.g. Brown and Warren 2009; Gaudine and Saks 2004) and transfer of training (e.g., Gist et al. 1990; Pattni et al. 2007) rather than the explanation of mechanisms within this relationship. Following this mechanism issue, there is also a lack of clarity about the role of trainee attitudes as mediators linking post-training transfer interventions and transfer of training. To date, the literature has extensively focused on self-efficacy as trainee attitudes. Difficulties arise when an attempt is made to explain the extent to which trainees are ready to change their ineffective or inefficient way of working (i.e., readiness to change), or how far they may enhance their self-motivation to transfer the new skills to the job (i.e., autonomous motivation to transfer) after they implement a transfer intervention strategy.

Second, significantly less research offers empirical explanation of the distinction between RP and GS in influencing trainee attitudes and transfer of training. To our knowledge, in more than two decades there have been only four studies that have evaluated the relative effectiveness of RP and GS (i.e., Gist et al. 1990, 1991; Wexley and Baldwin 1986) on trainee attitudes and transfer of training, where the last comparative study was conducted a decade ago by Richman-Hirsch (2001). Moreover, these works suffer from inconsistent results concerning whether GS is better than RP or the opposite. This situation may lead to erroneous conclusions about what interventions contribute more to trainee attitudes and transfer of training and why, and what

interventions work best in what context, in what manner and for what reasons.

Third, there are few studies published in this field that offer a perspective from developing countries. The focus so far has been on developed countries (e.g., Canada, Israel, United States), missing out the insights from developing countries. Indeed, the literature would have been more interesting if previous studies had included new perspectives from developing countries. In particular, there are certain important contextual and institutional differences between organizations in developed and developing countries, such as the structure of the organization, economic resources and budget, and organizational culture (Holton et al. 2003; Subedi 2006). Such differences, in turn, may demand a different organizational approach to designing and conducting training, and may lead to divergent results. To date we know little about the effectiveness of post-training transfer interventions in developing countries.

We argue that these limitations hinder the advancement of the study of post-training transfer interventions, hence overcoming these issues is a must. In response to these limitations, we develop a mediating model that may be helpful in overcoming these limitations.

The Post-Training Transfer Interventions Model

The conceptual model illustrated in Fig. 23.1 has been developed to overcome the issues and gaps identified in the foregoing discussion. It includes two post-training transfer interventions (i.e., complete RP model and proximal plus distal GS) as the independent variables, transfer of training as a dependent variable, and two trainee attitudes (i.e., readiness to change and autonomous motivation to transfer) as mediators. In this model, RP and GS are illustrated as having a direct and positive effect on trainees' readiness to change and autonomous motivation to transfer. We also hypothesize that RP and GS will affect transfer of training, either directly or indirectly, through readiness to change and autonomous motivation to transfer.

In this study, readiness to change is defined as the degree to which individuals are mentally and physically prepared to adopt new ways of working in order to support their visions, achieve their goals, and enhance their performance (Simon 1996; Walinga 2008). Furthermore, autonomous motivation to transfer is defined as a desire to use the newly learned skills that is initiated by the self, that is, without external contingency (Gegenfurtner et al. 2009). Finally, transfer of training is defined as the extent to which trainees apply and

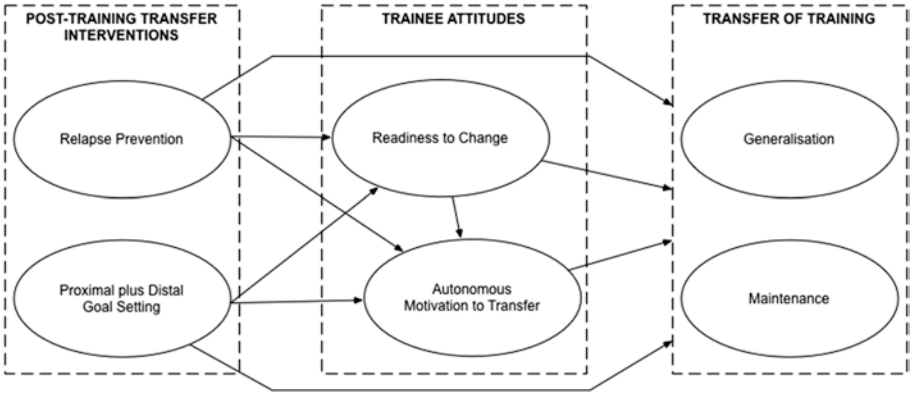

Fig. 23.1 The conceptual model of post-training transfer interventions

maintain their knowledge and skills learned from training to their daily job activities (Baldwin and Ford 1988).

We employ the social cognitive theory as the main theoretical foundation to explain the fundamental relationships between post-training transfer interventions and transfer of training. The social cognitive theory argues that human psychosocial functioning can be understood in the triadic reciprocal causation of three variables—environmental stimuli, individual behaviors, and individuals' cognitive factors—where human agency plays a central role: the individual acts as planner, forward thinker and self-regulator (Bandura 1999). However, the social cognitive theory emphasizes that the process in individuals' cognitive ability influences behaviors, without clearly explaining the role of individual attitudes in this relationship. In response, two theories were proposed to provide a theoretical foundation to the conceptual model: the transtheoretical model of change (Prochaska et al. 1992) and self-determination theory (Ryan and Deci 2000).

The transtheoretical model of change argues that it is important for the individual to have a self-management tool to stimulate and motivate them through the stage of change, so that when they feel they cannot proceed, this tool can help them to examine the advantages and disadvantages of not continuing the change process (Prochaska et al. 1992; Prochaska and Norcross 2001). The internalization part of self-determination theory explains that an individual takes a valuable action because they recognize that the action provides value to them, is coherent with their life or work principles, or is able to provide them with self-satisfaction (Gagne and Deci 2005; Ryan and Deci 2000). The combination of social cognitive theory and the internalization part of self-determination theory might explain why some cognitive-based tools enhance trainee attitudes, and in turn transfer behavior.

Below, we discuss these relationships in detail and hypothesize the resulting effects of post-training transfer interventions on trainees' readiness to change, autonomous motivation to transfer, and transfer of training.

Post-Training Transfer Interventions and Trainee Attitudes

Conceptually, one can expect both post-training transfer interventions to have an effect on trainee attitudes (i.e., readiness to change and autonomous motivation to transfer) despite limited previous interest in these particular variables (e.g., Choi and Ruona 2011; Gegenfurtner et al. 2009; Jones et al. 2005). Regarding the relationship between RP and readiness to change, we expect that RP intervention may positively influence trainees' readiness to change. This is because RP helps trainees overcome potential threats that might hinder the utilization of newly learned skills in the workplace, and in turn enhance trainees' preparedness in applying the new skills. We also expect that proximal plus distal GS positively influences readiness to change, albeit through a different mechanism than that of RP. In particular, trainees will be ready to change their inefficient way of working if they are provided clear guidance about the targets they should accomplish and the action they should perform to reach those targets (Antonacopoulou 2001; Brown and McCracken 2010; Prochaska and Norcross 2001). Some scholars (e.g., Brown 2005; Lawrence 1999), for example, have argued that if specific intervention tools, such as GS, are used to help trainees in transferring their new skills to the actual workplace, they are highly likely to change their way of working when it no longer fits the situation they face.

Hypothesis 1 The use of RP intervention positively contributes to the enhancement of trainees' level of readiness to change.

Hypothesis 2 Proximal plus distal goal setting increases trainees' level of readiness to change.

Readiness to change may also influence autonomous motivation to transfer. Some scholars (e.g., Colquitt et al. 2000; Ogbonna and Wilkinson 2003; Rafferty and Fairbrother 2015) have argued that when trainees feel prepared to adapt skills that are not helpful to their work performance, they may be motivated to do the job with the new skills as soon as possible.

Hypothesis 3 Trainees' readiness to change will autonomously enhance their motivation to transfer.

We also expect that both post-training transfer interventions will affect trainees' autonomous motivation to transfer, either directly or via readiness to change. As the internalization part of self-determination theory suggests, people are motivated to internalize the regulation of important activities (Deci and Ryan 2008; Gagne and Deci 2005).

Some scholars (e.g., Burke 1997; Chiaburu and Lindsay 2008; Curado et al. 2015; Narayanan et al. 2007) who have investigated the effectiveness of self-management tools in motivation have argued that the ability to detect and overcome specific cognitive or behavioral inhibitors that are stimulated by the organizational environment makes trainees comfortable with their skills, ready to change things that do not work, to plan and, although they work in less supportive environments, subsequently boost their desire to transfer the new skills.

The implementation of proximal plus distal GS intervention is also relevant for the enhancement of trainees' motivation to transfer. This is because the proximal plus distal GS is the only GS strategy that accommodates the importance of feedback. Certainly, receiving feedback will help trainees to monitor their progress pertaining to short-term goals (Anseel et al. 2007; Sitzmann et al. 2010). Subsequently, the combination of feedback and short-term goals will inform and direct trainees in subsequent strategies to achieve long-term goals (Van den Bossche et al. 2010).

Hypothesis 4 The utilization of relapse prevention intervention is an antecedent to trainees' autonomous motivation to transfer, either directly or via readiness to change.

Hypothesis 5 The utilization of proximal plus distal goal setting intervention is an antecedent to trainees' autonomous motivation to transfer, either directly or via readiness to change.

Trainee Attitudes and Transfer of Training

We argue that trainees' readiness to change also affects the transfer of training, either directly or indirectly, via trainees' autonomous motivation to transfer. Scholars (e.g., Gegenfurtner et al. 2009; Kontoghiorghes 2002) have argued that confidence in utilizing training skills and readiness to handle stimuli from the working environment are some necessary conditions for trainees to autonomously motivate themselves to use the skills. This in turn will lead to positive transfer performance, as several positive components (e.g., internal

desire) required for positive transfer are attached in the transfer motivation (Chiaburu and Lindsay 2008; Grohmann et al. 2014; Kontoghiorghes 2004).

Hypothesis 6 A high level of autonomous motivation to transfer will lead trainees to generalize and retain their new training skills back on the job.

Hypothesis 7 Readiness to change will directly influence transfer of training, and indirectly influence it through its effect on autonomous motivation to transfer.

Post-Training Transfer Interventions and Transfer of Training

We expect that both RP and proximal plus distal GS may directly affect transfer of training, and indirectly influence it through readiness to change. We use the notion of social cognitive theory to support these assertions. This theory argues that individuals can control their attitudes, achieve the desired transfer behaviors, and subsequently increase their performance if they understand the environmental stimuli that initiate their cognitive process and also know how to handle these stimuli appropriately (Bandura 1986; Wood and Bandura 1989).

Empirically, scholars (e.g., Burke 1997; Noe et al. 1990; Pattni et al. 2007; Seiberling and Kauffeld 2017) have supported this assertion by arguing that a self-management intervention tool positively affects trainees' readiness to eliminate the threats that prevent them from achieving positive transfer, and in turn influences the achievement of several transfer outcomes (e.g., course content retention, use of transfer strategies, use of trained skills). In addition, it is argued that the combination of proximal goals, feedback mechanism, and distal goal may mobilize trainees' efforts and readiness to achieve goals, which may subsequently affect their transfer action (Brown 2005; Brown and Warren 2009; Locke and Latham 2002).

Hypothesis 8 RP enhances training transfer directly, or indirectly through readiness to change.

Hypothesis 9 Proximal plus distal goal setting influences training transfer, either directly or via readiness to change.

We also expect that there are indirect effects of RP and GS on transfer of training through autonomous motivation to transfer. Scholars (e.g., Burke 1997; Tziner et al. 1991) have argued that the implementation of RP intervention helps trainees transfer their skills through the enhancement of transfer

motivation. This is because it has specific modeling characteristics that may influence trainees' cognitive ability, which in turn affects the transfer of training. On the effectiveness of GS, some scholars (e.g., Latham 2004; Luthans et al. 2008; Wood and Bandura 1989) have argued that the combination of short-term goals, a long-term goal, and feedback mechanisms may motivate trainees' actions, psychological capital, and also well-being, which may affect trainees' actual transfer actions.

Hypothesis 10 RP enhances training transfer directly, or indirectly through autonomous motivation to transfer.

Hypothesis 11 Proximal plus distal goal setting influences training transfer, either directly or via autonomous motivation to transfer.

The Differential Effectiveness of RP and Proximal Plus Distal GS

To date, there has been no theoretical argument or empirical evidence to show which of the two interventions (i.e., RP or GS) is more effectual in an organizational setting. However, based on the simplicity of the GS intervention, we theorize that GS has a greater influence on trainee attitudes and transfer of training. "*Relapse prevention*" is a new term for most trainees (Richman-Hirsch 2001), and as a result they need to invest much time to learn the concept, to understand the logic that underlies the term, and to assure themselves that this intervention will benefit them in terms of transferring the new skills. On the other hand, the term GS is familiar to employees in organizations, and developing a set of goals is sometimes a routine task for them.

Hypothesis 12 Proximal plus distal GS enhances trainees' readiness to change, autonomously motivates trainees to transfer their new skills, and contributes more to transfer of training than does RP.

Methodology

Research Context

The empirical setting of this study included employees of two private organizations in Indonesia. There are two reasons for using Indonesian organizations as a particular focus.

First, the importance of having qualified human resources to compete in the globalized economy has led Indonesian organizations to focus on training and development, which has in turn stimulated studies on the topic of training and development in Indonesia (Bennington and Habir 2003; Sutiyono 2007). Given that the concept of transfer of training is key to achieving successful training, many Indonesian scholars (e.g., Suhariadi 2005) have examined the antecedents of transfer of training in the Indonesian organization context. However, the research to date has tended to focus on trainee characteristics, training design, and work environment rather than on the impact of post-training transfer interventions on trainee attitudes and transfer of training. As a result, little is known about how the implementation of post-training transfer interventions would help employees to achieve positive transfer performance.

Second, as identified in the literature, most research in this particular field has been conducted in developed countries, for example, the USA (e.g., Hutchins 2004) and Canada (e.g., Latham and Brown 2006), rather than in developing countries such as Indonesia. As a result, we know little about whether the conclusions from the literature on the positive impact of post-training transfer interventions in developed countries hold true in the context of developing countries (e.g., Indonesia). Filling these gaps may offer fresh insight for both Indonesian organizations and the literature regarding how post-training transfer interventions influence trainee attitudes and transfer of training.

Research Approach

We used an approach called sequential explanatory mixed methods to answer the research question posed above. This approach systematically combines the quantitative and qualitative approaches in a single study in order to provide more comprehensive and meaningful answers to the research problems or questions (Creswell and Plano-Clark 2011). The approach used in this study is sequential because the quantitative method preceded the qualitative method, and explanatory because the qualitative method was used to further explain the statistical trends identified by the quantitative method.

Quantitative Study

Sample Description

In total, 160 employees participated in the quantitative study. Sixty percent of the participants were male, 72% held bachelor's degrees, while 81% of the

participants had working experience of between five and 14 years (mean = 10.5, s.d. = 4.1).

Design and Procedures

An experimental design containing three groups of a combination of a between-subjects and a within-subjects variable was used. The between-subjects variable was the post-training transfer interventions to which the participants were randomly assigned: the RP intervention group, the proximal plus distal GS intervention group, and the no intervention group. The within-subject variable was the time period to which the participants were exposed: before the intervention (the pre-intervention stage—Time 1) and after the intervention (the intervention stage—Time 2).

In the pre-intervention stage (Time 1), participants in all groups received identical time management training. Following this training session, participants completed a questionnaire measuring their readiness to change and autonomous motivation to transfer the time management training skills to the workplace. Approximately six weeks after the training session, participants were asked to complete an assessment of the trainees' training transfer behaviors: generalization and maintenance.

We conducted the intervention stage (Time 2) approximately six weeks after the pre-intervention stage. Each experimental group was treated differently. In the RP group, participants were asked to implement the RP intervention to support the transfer of training process. They were asked to identify the potential threats that might hinder the utilization of the new skills, and to develop a prevention strategy to overcome these threats. In the proximal plus distal GS group, participants were asked to set several proximal (short-term) goals related to their new skills. Subsequently, they were asked to discuss their goals with the trainer and were asked to set a distal (long-term) goal related to their new time management skills. In the no intervention group, participants were asked to do their best to achieve positive transfer performance. Following these experimental sessions, participants were asked to complete a set of questionnaires that assessed their level of readiness to change and autonomous motivation to transfer. Six weeks later, participants completed a set of questionnaires assessing their training transfer behaviors. All questionnaires were returned directly to the researchers.

Experiment Materials We used the original Relapse Prevention Model instruction that was proposed by Marx (1986) as the experimental material for the

RP experimental condition. For the proximal plus distal GS group, we developed a four-step material based on goal setting theory (Locke and Latham 1990). Each step from this material is developed based on the three important dimensions of this theory: specific, challenging, and difficult. These four steps were: (1) choose a skill to transfer; (2) set a distal goal; (3) break the distal goal into three short-term (proximal) goals; and (4) discuss these goals with their chosen trainers to ensure that the goals were achievable.

Measures

The following subsections describe the dependent variables that were used as measures in this study.

Readiness to Change We measured the three dimensions of readiness to change using nine items based on the University of Rhode Island Change Assessment (URICA) scale (DiClemente and Hughes 1990), adapted to the current research purposes. An example statement for this measure is: "*My previous skills do not help me much at the workplace*."

Autonomous Motivation to Transfer To measure the three dimensions of autonomous motivation to transfer, we developed a ten-item instrument based on the instruments from earlier studies (e.g., Gegentfurtner et al. 2009; Noe 1986; Ryan and Deci 2000). An example item is: "*When I invest effort to use these training skills, I do so because the advantages of transferring the skills is greater than not using it at the workplace*."

Transfer of Training To measure the two dimensions of trainees' transfer of training performance, we developed a ten-item scale based on prior research instruments, including those found in studies by Burke and Baldwin (1999), Hutchins (2004), and Wexley and Baldwin (1986). An example item is: "*I use most new training strategies that have been taught to improve my work performance*."

Data Analysis

To test the hypotheses, this study employed two statistical analysis tools: split-plot analysis of variance (split-plot ANOVA) and partial least square (PLS). Split-plot ANOVA was used to examine the impact of the experimental conditions (RP, proximal plus distal GS, no intervention) on measured variables.

It was also useful to assess the significance of apparent differences across the conditions. PLS was employed to examine the effect size of each post-training transfer intervention on measured variables, and also to assess the mediating role of readiness to change and autonomous motivation to transfer in the relationship between post-training transfer interventions and transfer of training.

Table 23.1 shows the mean and standard deviation for each of the groups (RP, proximal plus distal GS, and no intervention) for each of the times under study, and also shows the split-plot ANOVA results for each of the dependent variables. Tables 23.2 and 23.3 provide the PLS results for the direct and indirect structural model estimates respectively. Fig. 23.2 presents the overall structural model with path coefficients.

Test of Hypotheses

Split-plot ANOVA revealed that the change in mean scores of readiness to change across post-training transfer interventions was significant (*Wilks' Λ* = .820, F (2, 157) = 17.25, $p < 0.05$, $\eta p^2 = 0.18$). These results confirmed the effect of RP and proximal plus distal GS on readiness to change and supported Hypotheses 1 and 2. We used PLS to examine the direct effect of readiness to change on autonomous motivation to transfer. The results showed that there was no significant effect of readiness to change on autonomous motivation to transfer ($\beta = 0.12$, $t = 1.47$, $p > 0.05$). This rejected Hypothesis 3. To test Hypotheses 4 and 5, split-plot ANOVA and PLS were used. We found that the interaction effect between time periods and experimental conditions was significant (*Wilks' Λ* = 0.621, F (1, 157) = 95.88, $p < 0.05$, $\eta p^2 = 0.38$), suggesting that the implementation of RP and proximal plus distal GS directly influenced autonomous motivation to transfer. Based on the PLS results, the direct effect sizes of RP ($f^2 = 0.31$) and proximal plus distal GS ($f^2 = 0.27$) in influencing autonomous motivation to transfer are relatively similar. However, based on the indirect effect analysis, the results showed that the effects of both post-training transfer interventions on autonomous motivation to transfer via readiness to change were not significant (RP ➔ RTC ➔ AMT, $\beta = 0.085$, *sig.* = 1.469; and GS ➔ RTC ➔ AMT, $\beta = 0.089$, *sig.* = 1.451), thus Hypotheses 4 and 5 only received partial support.

From Table 23.2, it is apparent that Hypothesis 6, which states that autonomous motivation to transfer will affect transfer of training, received support with moderate effect size ($\beta = 0.26$, $t = 2.92$, $f^2 = 0.07$, $p < 0.05$). Regarding Hypothesis 7, PLS results failed to confirm the indirect effect of readiness to

Table 23.1 Quantitative results: the main results of the split-plot ANOVA

		Experimental conditions											
		RP (n = 54)		Proximal plus distal GS (n = 54)		Control (n = 52)		Interaction effect	Main effect	Between-subjects effect			
Dependent variables		Mean	SD	Mean	SD	Mean	SD			Size	RP × GS	RP × C	GS × C
Readiness to change	*Pre*	45.13	4.33	44.87	4.74	43.48	4.61	0.18	0.34	0.32	0.05	4.32[a]	4.27[a]
	Post	50.76	3.56	50.93	3.75	43.77	3.22						
Autonomous motivation to transfer	*Pre*	53.06	3.72	54.96	3.73	53.50	4.31	0.27	0.38	0.30	−0.79	3.37[a]	4.15[a]
	Post	60.39	3.70	60.06	3.88	53.21	3.39						
Transfer of training	*Pre*	52.63	3.47	52.83	3.42	52.29	4.09	0.29	0.35	0.30	−0.64	3.96[a]	4.60[a]
	Post	58.85	4.95	59.93	4.06	51.27	4.97						

[a]The mean difference is significant at the 0.05 level

Table 23.2 Quantitative results: structural model estimates

Structural relation	Path coefficient	t-value	f2	q2
RP ➔ RTC	0.69	12.40	0.66	0.17
RP ➔ AMT	0.61	6.90	0.31	0.06
RP ➔ TT	0.30	2.79	0.06	0.01
GS ➔ RTC	0.70	12.89	0.68	0.19
GS ➔ AMT	0.58	6.35	0.27	0.05
GS ➔ TT	0.39	3.92	0.10	0.02
RTC ➔ AMT	0.12	1.47	0.01	0.05
RTC ➔ TT	0.17	2.11	0.03	0.02
AMT ➔ TT	0.26	2.92	0.07	0.06

RP relapse prevention, *GS* proximal plus distal goal setting, *RTC* readiness to change, *AMT* autonomous motivation to transfer, *TT* transfer of training

Table 23.3 Quantitative results: Bootstrap results for indirect effects

			Confidence interval	
Structural relation	Indirect effect size	Sig.	LL 95 CI	UL 95 CI
RP ➔ RTC ➔ AMT	0.085	1.469	−0.029	0.199
RP ➔ RTC ➔ TT	0.113	2.047	0.003	0.228
RP ➔ AMT ➔ TT	0.157	1.980	0.002	0.312
GS ➔ RTC ➔ AMT	0.089	1.451	−0.026	0.176
GS ➔ RTC ➔ TT	0.119	2.070	0.006	0.231
GS ➔ AMT ➔ TT	0.148	1.966	0.000	0.296
RTC ➔ AMT ➔ TT	0.032	1.262	−0.018	0.081

RP relapse prevention, *GS* proximal plus distal goal setting, *RTC* readiness to change, *AMT* autonomous motivation to transfer, *TT* transfer of training

change on transfer of training via autonomous motivation to transfer (β = 0.032, *sig.* = 1.262), although it was found that the direct effect was significant (β = 0.17, t = 2.11, f^2 = 0.03, $p < 0.05$). This indicated partial support for Hypothesis 7.

Split-plot ANOVA results revealed that the change in mean scores of transfer of training across post-training transfer interventions was significant (*Wilks'* Λ = 0.820, $F(2, 157) = 17.25$, $p < 0.05$, $\eta p^2 = 0.18$), with both transfer interventions showing a small to moderate effect size (RP, f^2 = 0.06; and GS, f^2 = 0.10). We also found that the mediating role of readiness to change in the relationships between post-training transfer interventions and transfer of training were significant (RP ➔ RTC ➔ TT, β = 0.113, *sig.* = 2.047; and GS ➔ RTC ➔ TT, β = 0.119, *sig.* = 2.070). This supported Hypotheses 8 and 9. Hypotheses 10 and 11 also received significant support regarding the mediating role of autonomous motivation to transfer in the relationships between both post-training transfer interventions and transfer of training (β = 0.157, *sig.* = 1.980; and β = 0.148, *sig.* = 1.966).

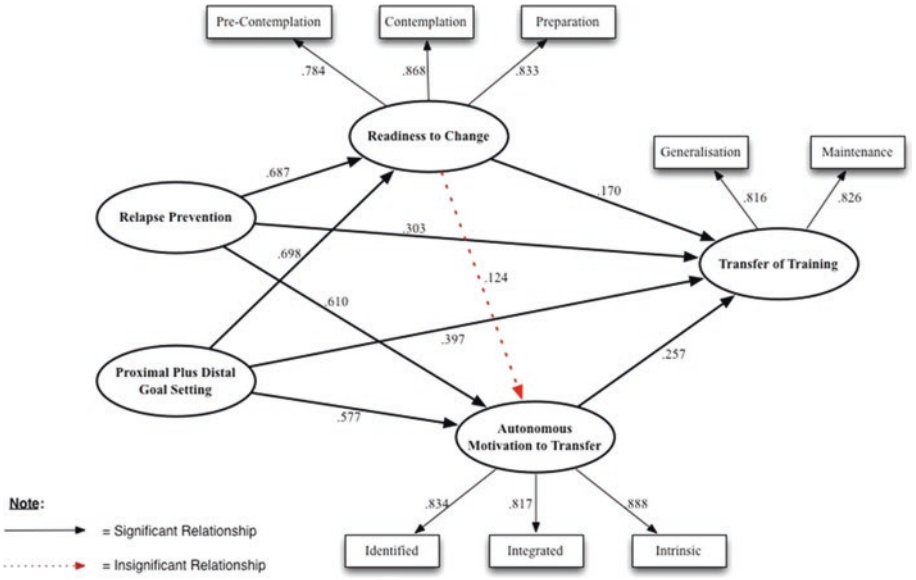

Fig. 23.2 Quantitative results: the overall structural model with path coefficients

We also investigated which post-training transfer interventions had higher contribution to readiness to change, autonomous motivation to transfer, and transfer of training based on their effect size. The results found that RP statistically made a slightly smaller contribution than GS in influencing readiness to change, but RP had a higher effect size than GS in directly affecting autonomous motivation to transfer. Furthermore, based on the calculation of total effect size, the results revealed that GS contributed more to the enhancement of transfer of training, either via readiness to change (RP, $f\ total = 0.173$ vs. GS, $f\ total = 0.219$) or autonomous motivation to transfer (RP, $f\ total = 0.217$ vs. GS, $f\ total = 0.248$). This indicates partial support for Hypothesis 12. Table 23.4 summarizes the results of the hypotheses testing.

Need for Follow-Up Qualitative Study

Several interesting results emerged from the quantitative study. For example, the results failed to confirm the influence of trainees' readiness to change on autonomous motivation to transfer. The results also revealed that both RP and GS had a larger effect size in enhancing trainee attitudes rather than

Table 23.4 A summary of the results of the hypotheses testing

Hypothesis	Statement	Outcome
1	*The use of RP intervention positively contributes to the enhancement of trainees' level of readiness to change.*	**Supported**
2	*Proximal plus distal goal setting increases trainees' level of readiness to change.*	**Supported**
3	*Trainees' readiness to change will autonomously enhance their motivation to transfer.*	**Rejected**
4	*The utilization of relapse prevention intervention is an antecedent to trainees' autonomous motivation to transfer, either directly or via readiness to change.*	**Partially supported**
5	*The utilization of proximal plus distal goal setting intervention is an antecedent to trainees' autonomous motivation to transfer, either directly or via readiness to change.*	**Partially supported**
6	*A high level of autonomous motivation to transfer will lead trainees to generalize and retain their new training skills back on the job.*	**Supported**
7	*Readiness to change will directly influence transfer of training, and indirectly influence it through its effect on autonomous motivation to transfer.*	**Partially supported**
8	*RP enhances training transfer directly, or indirectly through readiness to change.*	**Supported**
9	*Proximal plus distal goal setting influences training transfer, either directly or via readiness to change.*	**Supported**
10	*RP enhances training transfer directly, or indirectly through autonomous motivation to transfer.*	**Supported**
11	*Proximal plus distal goal setting influences training transfer, either directly or via autonomous motivation to transfer.*	**Supported**
12	*Proximal plus distal GS enhances trainees' readiness to change, autonomously motivates trainees to transfer their new skills, and contributes more to transfer of training than does RP.*	**Partially supported**

improving transfer of training. Finally, the results suggested that GS contributed more than RP in influencing transfer of training, either directly or indirectly, through readiness to change and autonomous motivation to transfer. Certainly, further exploration was needed to explain why these results occurred. In particular, more data were needed to comprehensively understand the trainees' perceptions of and reactions to the transfer interventions, hence revealing the potential mechanism or reasons behind the statistical trends explained above. This, then, led us to the qualitative study. Table 23.5 summarizes interesting results from the quantitative study and the follow-up qualitative steps that are required to respond to these findings.

Table 23.5 A summary of the quantitative results

Relationship	Key quantitative results	Key qualitative follow-up
Post-training transfer interventions and trainee attitudes	Effect size of post-training transfer interventions on readiness to change was larger than on autonomous motivation to transfer	Explore participants' reaction to the implementation of post-training transfer interventions and its impact on their attitudes
	Readiness to change did not influence autonomous motivation to transfer	Explore participants' views regarding this result, e.g., the existence of an indirect relationship that may negate this direct relationship, or the possibility that this relationship may simply not exist
Trainee attitudes and transfer of training	Autonomous motivation to transfer contributed more to transfer of training than did readiness to change	Explore participants' perceptions prior to the transfer action
Post-training transfer interventions and transfer of training	Proximal plus distal GS contributed more to transfer of training than did RP	Do a thorough examination via interviews regarding the process through which RP and GS influence transfer of training
	Readiness to change did not mediate the relationship between post-training transfer interventions and transfer of training, while autonomous motivation to transfer did	Specifically explore participants' views regarding their readiness to change, e.g., the existence of an indirect relationship that may negate this mediating role, or the possibility that this role may simply not exist

Qualitative Study

Interviews and Analysis

The qualitative phase of the research used a semi-structured interview approach to collect the data. Participants were employees who were previously involved in the quantitative study and indicated a willingness to participate in the follow-up qualitative study. In total, 16 participants from two experimental groups (i.e., RP and GS) agreed to be interviewed for the qualitative study. Sixty-three percent of the participants were female and 69 % held bachelor's degrees.

An interview protocol was designed to clarify the statistical trends evident from the quantitative study (see Table 23.6 for a summary of the interview guide). Each interview session was audio-recorded with explicit permission,

Table 23.6 A summary of the interview guide

Domain	Subdomain
Characteristics of participants	Gender
	Age
	Education
	Organizational position
	Length of work experience
The relationship between post-training transfer interventions and trainee attitudes	Personal perceptions regarding post-training transfer interventions before and after the experimental treatment
	Personal experiences with post-training transfer interventions
	The impact of post-training transfer interventions on participants' readiness to change and autonomous motivation to transfer
The relationship between trainee attitudes and transfer of training	The link between participants' readiness and motivation
	The link between participants' readiness to change and transfer of training
	The link between participants' autonomous motivation to transfer and transfer of training
The relationship between post-training transfer interventions and transfer of training	Specific items in post-training transfer interventions that urge participants to do transfer action (i.e., applying and retaining the training skills
	Specific mechanism in the link between post-training transfer interventions and transfer of training

conducted individually by the researcher, and lasted from 20 to 25 minutes in general. Furthermore, the interviews were transcribed, read, and reread to ensure that the data were mistake-free, and analyzed. Finally, the results were sent back to participants to confirm the coherence of the data. This study followed the content analysis procedure proposed by Sekaran and Bougie (2010), which consists of four main steps: coding, categorization, relationship recognition, and data display.

Key Categories

Based on the interviews, 14 subcategories were evident. Subsequently, the 14 subcategories were combined into five main categories: self-confidence to control, normative goal commitment, self-reliance, initiative, and creativity. Specifically, three categories (i.e., self-confidence to control, self-reliance, initiative) emerged from the RP group and three categories (i.e., normative goal commitment, self-reliance, creativity) emerged from the proximal plus distal

GS group. These categories explain the process through which both post-training transfer interventions (i.e., RP and GS) affect readiness to change, autonomous motivation to transfer, and transfer of training. Table 23.7 shows how the qualitative data were organized to infer conclusions. The categories and subcategories are presented in column 1 and defined in column 2. Column 3 explains the role of each category in explaining the relationship found in the quantitative study. The fourth column provides illustrative examples per subcategory.

Discussion

In this section, we integrate the findings of quantitative and qualitative studies, and use it as a foundation to answer the research question of this study: "*How do different post-training transfer interventions (i.e., RP and proximal plus distal GS) affect trainees' readiness to change, autonomous motivation to transfer, and transfer of training?*" In particular, we discuss the findings of this study to highlight the relationship between post-training transfer interventions, trainee attitudes, and transfer of training.

The Effect of Post-Training Transfer Interventions on Readiness to Change

The quantitative results indicate that both RP and GS influence trainees' readiness to change, although GS has a slightly greater impact than RP on trainees' readiness to change. The qualitative study reveals two important mediating mechanisms between RP and GS that explain why these interventions enhance trainees' readiness to change.

In the application of RP, the interviews reveal that after trainees implemented the RP experimental materials in the quantitative study, they appeared to be more confident with regards to learning and training, their ability to handle the work environment, and their belief that they could better utilize their newly learned skills. We call this variable *confidence to control* (explained in Table 23.4). Subsequently, the confidence to control impacts trainees' readiness to use the new skills in the workplace, to eliminate the factors (e.g., time pressure, lack of support) that hinder the positive transfer performance, or to completely change the way of working if necessary. This finding is consistent with previous research (e.g., Gaudine and Saks 2004; Mayo et al. 2012; Tziner

Table 23.7 Qualitative findings: a summary of the semi-structured interviews

No	(Sub)category	Definition	The impact of the category on quantitative results	Specimen example from interviews
1	***Self-confidence to control***	*A strong belief among trainees that post-training situations (e.g., new skills, environment) were more controllable after implementing the RP method*	*This category explains the process through which RP influences readiness to change*	
	Managing the skills utilization	Trainees were confident they could use the newly learned skills whenever and wherever these skills were required		*"These items* [items in the RP method] *help me to know when I should use these skills, and how these skills might improve my performance."*
	Coping with negative work situations	Trainees believed they could handle the obstacles faced when they went back to the office		*"Straight after I learned this method* [RP method], *I've seen in my mind how my supervisors might react and I know how to response to it. I'm ready."*
	Controlling the internal behavior	Trainees felt they could control their internal behavior when it was to their transfer performance advantage		*"Start eliminating your internal problems, start behaving like you really need these skills, then you are in position to demand more from your training experience."*
2	***Normative goal commitment***	*A "have-to" attitude towards the accomplishment of the goals in order to achieve positive transfer*	*This category explains: (1) the process through which GS influences readiness to change; and (2) the mechanism in the relationship between GS and autonomous motivation to transfer*	

(*continued*)

Table 23.7 (continued)

No	(Sub)category	Definition	The impact of the category on quantitative results	Specimen example from interviews
	Mindset of obligation	Trainees felt obliged to accomplish the goals they set, given the effort they put into the goal-setting process		*"I have to achieve these goals, I don't know what to say if I don't."*
	Determination to try	Trainees had strong willpower to try to achieve the goals		*"Last time I discussed these* [showing their goals plan] *with them* [feedback source]*, I suddenly know how important this direction is to me.* [And] *to try to follow that is a must. I'm prepared."*
	Persistence in pursuing the goals	Trainees would persist and remain consistent with the activities towards the goal achievement		*"Like my friend said* [his friend acted as the feedback source]*, stick to the plan and you are ready to go toward your target."*
3	***Self-reliance***	*A sense of self-worth among trainees, of being fit to be relied on in undertaking the activities they planned*	*This category explains the process through which both post-training transfer interventions (i.e., RP and GS) influence autonomous motivation to transfer*	
	Self-disciplined	Trainees could take action regardless their desires, perceptions, or feelings at the time		*"When I'm ready with my plan, I am nervous enough. But, no matter what, I need to move on."*

(*continued*)

Table 23.7 (continued)

No	(Sub)category	Definition	The impact of the category on quantitative results	Specimen example from interviews
	Responsibility	Trainees had a sense of being responsible for performing the task well		*"I was spending like three to four hours of my time discussing these goals. I know once I failed* [to achieve the goals] *I am the smiley dead man walking."*
	Organized	Trainees were able to structure and manage their transfer-related activities		"[Feeling that I] *can't wait to be back to my office? Yes, of course. I am able to draw every things needed for me in order to use these skills."*
4	***Initiative***	*A readiness to start a new series of directions or actions*	*This category explains the mechanism in the relationship between RP and transfer of training*	
	Self-starting	Trainees sought any potential opportunity to perform their newly learned skills		*"When I was thinking of my office, it seems like no opportunity to use these skills. But it was predictable. I need to find it by my own."*
	Proactiveness	Trainees tried to take preventive action rather than reactive action		*"I believe that once I wait for the perfect time* [to apply these strategies]*, I know I have wasted my time."*
5	***Creativity***	*A mental ability to produce new ways of achieving the target when the initial plan was not working*	*This category explains the mechanism in the relationship between GS and transfer of training*	

(*continued*)

Table 23.7 (continued)

No	(Sub)category	Definition	The impact of the category on quantitative results	Specimen example from interviews
	Flexibility	Trainees could create an alternative to the initial strategy to reach the goals		*"After the discussion* [with her feedback source]*, I found a space where I could develop plan B if this plan does not work."*
	Specificity	Trainees were able to further elaborate the details of their activities where required to further understand the flaws in the plan		*"This desire to use the skills help you push yourself a bit to the edge, to think what works what does not work, to visually draw the details of your effort so far."*
	Plan development capability	Trainees were able to modify the initial strategy to achieve the goals		*"I remembered that a bit of modification of the plan smoothed my execution of the strategy and the application of the skills."*

et al. 1991) which has argued that identification of threats, development of strategies to overcome threats, and creating transfer-related support network at the workplace enhance trainees' self-efficacy, self-confidence, and internal locus of control, which subsequently affect their workplace performance.

In the application of proximal plus distal GS, trainees reveal a different mechanism. They admitted in the interviews that the enhancement of trainees' readiness to change was evident because they had a mindset of obligation to achieve the goals, given the time and effort they had put into the GS process. Furthermore, after developing a set of planned goals and identifying the feasible ways to attain the goals, trainees admitted that they were determined to fulfill their plan, to see the results of their actions, and to be persistent in achieving the goals regardless of the challenges they might face in doing so. We called this *normative goal commitment* (explained in Table 23.4). This commitment in turn influenced their readiness to fulfill the planned goals, to eliminate the problems that might inhibit positive transfer, and to change their inefficient or ineffective ways of working. This mechanism might add new insight to the literature, as this study is among the few to link the proximal plus distal GS to trainees' readiness to change.

The Effect of Post-Training Transfer Interventions on Autonomous Motivation to Transfer

The quantitative results strongly support the influence of both RP and GS on autonomous motivation to transfer. This suggests that trainees who implement post-training transfer interventions find it simpler to enhance their motivation to transfer the new training skills to the workplace. Social cognitive theory supports this finding by stating that a greater connection between environmental stimuli and the individual's cognitive reaction leads to the enhancement of the individual's motivation to complete a set of tasks or reach goals (Bandura 1999; Beauchamp et al. 2016).

The qualitative findings indicate a similar mechanism in explaining the link between both transfer interventions and autonomous motivation to transfer. This mechanism involves the relationship between trainees' readiness to change and self-reliance (the definition of *self-reliance* is provided in Table 23.4). In the interviews, trainees admitted that their level of readiness to move towards their planned goals (admitted by the trainees in the GS group), or their readiness to eliminate the problems blocking their transfer performance (admitted by the trainees in the RP group), made them more disciplined, more organized in doing things in pursuit of the goals, and ready

to take responsibility regarding the potential results. This self-reliance autonomously motivated them to apply or retain the newly learned skills at the workplace. This suggests that self-reliance is an important value because, even with minimum support, the trainees believed they could still execute the transfer strategy they had planned. Gaining self-satisfaction and valuing an event as important to the self are two major indicators of autonomous motivation (Deci and Ryan 2008), where both are enhanced in this study by the existence of trainees' self-reliance.

However, there is another mechanism that only occurs in the GS group. This mechanism concerns the mediating role of trainees' normative goal commitment. Specifically, we find that the implementation of the proximal plus distal GS method enhances trainees' normative goal commitment, where the latter is seen as coherent with trainees' other important values (e.g., gain self-satisfaction, seek pleasure). In the interviews, trainees admitted that trying to achieve positive transfer performance was not about satisfying their organizations, their supervisors, or their colleagues, but about satisfying themselves, as they were aware of the importance of transferring the skills to enhance their performance. This suggests that the proximal plus distal GS method shapes trainees' determination, persistence, and mindset towards the goals, where the latter autonomously impact trainees' motivation to transfer. This finding corroborates the ideas of some scholars (e.g., Latham 2004; Roth et al. 2007) who have suggested that individuals whose action is coordinated by a set of goal-directed activities will voluntarily put their effort, time, or stamina into using the knowledge they have in order to attain the targets.

The Effect of Post-Training Transfer Interventions on Transfer of Training

The quantitative results suggest that the implementation of RP and proximal plus distal GS affect transfer of training, either directly or indirectly, through readiness to change and autonomous motivation to transfer. The findings are consistent with several studies in this particular research area (e.g., Brown and Warren 2009; Tziner et al. 1991) that have argued that the perception of applicability of trained skills (i.e., reaction) and the flexibility in skills usage are strengthened by the implementation of post-training transfer interventions, where this relationship subsequently helps trainees to combat long-term skills use decay. However, further exploration via qualitative study indicates two new mechanisms that explain these quantitative results.

Regarding the implementation of RP, the interviews reveal that trainees' *self-initiative* (explained in Table 23.4) may mediate the relationship between RP and transfer of training. It indicates that this initiative is enhanced because trainees understand the worth of the RP method in improving their performance (e.g., helping them to eliminate the negative transfer behavior), which subsequently leads them to take preventive rather than reactive action. This attitude in turn leads trainees to take transfer action (e.g., generalizing the skills).

On the implementation of proximal plus distal GS, the interviews reveal that the proximal plus distal GS session enhanced trainees' transfer performance because they believed there was a chance for them to be more creative in transforming the goals plan into real action towards the goals, that is, *creativity* (explained in Table 23.4). Furthermore, trainees stated that they were always flexible in translating their strategy in order to achieve the goals. They also added that their strategy was not rigid, and they always dedicated one to two hours outside their working hours for strategy development purposes if obstacles existed to the target achievement. It appears that the feedback process that is embedded in the proximal plus distal GS method may contribute to the emergence of trainees' creativity. This assertion is consistent with those of scholars (e.g., Shipper et al. 2007; Stobbeleir et al. 2011) who have argued that feedback-seeking activities are a resource for individuals to enhance their creativity, and this creativity subsequently becomes an important intangible tool to achieve creative performance.

The Differential Effectiveness of Relapse Prevention and Goal Setting

Although the two transfer interventions (i.e., RP and GS) appeared to be similarly effective in supporting trainees' readiness to change, autonomous motivation to transfer, and autonomous motivation to transfer, and transfer of training, the quantitative estimates of this study indicate some difference in the effect size of the interventions.

A possible explanation for some of the results may be the nature of the transfer tools themselves. Planning a distal goal requires a combination of a set of proximal goals and the feedback process, suggesting that there is some intervention from the individual's external environment itself. The feedback process can help individuals enhance their performance by informing them of the activities they should or should not undertake in order to be effective and efficient, the support they have, or the development program in which they

should participate in order to improve their knowledge or skills (Foster and Macan 2002; Macan et al. 2011). The assumption of this feedback process is that the individual has a credible and reliable feedback source to support this process. In the proximal plus distal GS, the feedback process plays a key role by informing trainees about problems they may not spot themselves, additional strategies to handle those problems, and the activities they should undertake in order to remain in line with their goals. This prepares trainees to take each step in the change process.

This intensive feedback process apparently does not exist in the RP method. Certainly, trainees who are new to the term "relapse prevention" are guided through the RP method, and the elements of the RP method and specific terms related to it that seem unclear to the trainees are explained. However, the trainees do not obtain any intensive and additional input regarding what will or will not work regarding their RP plan. This may explain the difference between RP and GS.

The distinctive features of the RP method may be due to its ability to help individuals identify problems that might lead to a lapse situation from three perspectives: the strength of the individual's knowledge or skills, the external environment, and the internal behavior (Marx 1982; Wexley and Baldwin 1986). In this study, these features were learned thoroughly by the trainees and subsequently led them to a set of strategies to overcome obstacles in order to smooth their transfer effort. In other words, by developing a set of strategies to overcome obstacles, trainees autonomously enhanced their desire to use or retain the skills at the workplace. This subsequently affected their transfer performance.

Another possible explanation may lie in the additional attitudes that appear after the implementation of each transfer intervention tool. The interviews reveal that the implementation of proximal plus distal GS enhances trainees' commitment to the goals in a normative way, where this attitude indirectly influences trainees' flexibility and development capability regarding the planned goals in a more creative way. The enhanced commitment may help trainees to become more prepared to face their workplace, which subsequently affects their creativity, and finally urges them to transfer their new skills. On the other hand, the interviews reveal that trainees whose action is directed by the RP method enhance their self-confidence to control, which in turn influences them to take the initiative regarding the transfer effort. The latter subsequently impacts trainees' transfer performance. This suggests that having commitment and creativity toward goals enhances trainees' transfer performance to a larger degree than having self-confidence and initiative regarding

the transfer effort. This mechanism may explain why GS has a greater role than RP in influencing transfer of training.

Implications for Theory and Practice

The first implication of these findings relates to the process through which the implementation of both RP and GS affect trainees' readiness to change, autonomous motivation to transfer, and transfer of training. The findings suggest that the way RP influences transfer of training through the enhancement of attitudes is different from that of proximal plus distal GS, where each change in attitude impacts the size of the transfer outcome differently. Therefore, scholars must be aware of this change in trainee attitude if they wish to enhance the impact of implementing post-training transfer interventions on transfer of training.

The second implication pertains to the differential effectiveness of RP and proximal plus distal GS. The findings suggest that scholars may be aware that a complex mechanism exists in the link between the post-training transfer interventions, trainee attitudes, and transfer of training. This mechanism is different for RP and GS, which might explain why one intervention provides a greater contribution to one transfer behavior and not to another. Therefore, scholars and practitioners might pay more attention to the impact of these two transfer interventions on trainee attitudes if they wish to achieve positive transfer of training performance.

The final implication of the findings relates to the integration of three theories (i.e., social cognitive theory, transtheoretical model of change, and self-determination theory) in this study. The findings empirically validate the role of trainee attitudes as mediators in the relationship between two cognitive-based interventions and transfer behavior (i.e., generalization and maintenance). The social cognitive theory emphasizes that the environment sends several stimuli to individuals' cognitive processes, where the latter influence the way the individuals behave or respond to these stimuli. However, the assumption that the cognitive processes influence behavior through the change in attitudes has rarely been tested. Using the transtheoretical model of change and self-determination theory as a foundation to explain the mediating role of readiness to change and autonomous motivation to transfer, this study adds to the social cognitive theory by confirming that cognitive processes influence specific individual attitudes before affecting behavior.

Theoretically, this study extends the literature by describing some potential mechanisms that have not been exposed in previous studies. It also provides,

for the first time, an empirical basis for the distinction between the complete RP model and proximal plus distal GS in influencing trainee attitudes and transfer of training. This information is important because it will help scholars to organize the large and diverse body of mechanisms in the relationship between post-training transfer interventions and transfer of training. In addition, this study may serve as a confident starting point for researchers in evaluating the effectiveness of current post-training transfer interventions with the final aim of constructing a better and more comprehensive set of transfer interventions. Practically, the study may assist decision makers, managers and trainers through better understanding of the indirect role of post-training transfer interventions in enhancing the success level of a training and development program. This information is key to creating a successful training program that could result in enhanced employee performance.

In terms of the study's limitations, we conducted an experimental-design data collection study among large private organizations in Indonesia. This may limit the extent to which the study's findings can be generalized to other national contexts and organizational sectors. However, this limitation in turn provides an opportunity for future research to replicate this study in diverse industrial and geographic contexts, with various aims, for example, to understand not only the differential effectiveness of RP and proximal plus distal GS, but also the differential effectiveness of these interventions across organizational settings and countries.

Conclusion

Training plays a key role in knowledge management (Zhao et al. 2014). However, if the new knowledge and skills gained from training are not transferred to the workplace, the investment made in training may be in vain. In this study, it has been shown that both types of post-training transfer intervention (i.e., RP and proximal plus distal GS) are powerful tools for helping employees to transfer their newly acquired knowledge and skills to the job. It is clear that the implementation of these interventions may enable positive trainee attitudes, which in turn may enhance trainees' transfer performance. The study shows that the mechanisms through which the post-training transfer interventions affect transfer of training differ to some extent between RP and proximal plus distal GS. This distinction needs to be thoroughly understood if scholars and practitioners wish to obtain an optimal impact from the operationalization of post-training transfer interventions in organizations.

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