



Perceived importance as a mediator of the relationship between training assignment and training motivation

Perceived
importance as a
mediator

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Abstract *In this study, we examined whether employees' perceived importance of the training program would be one variable that mediates the relationship between training assignment and training motivation. Data were collected from 184 employees belonging to 18 banks who attended government-sponsored training programs in Northern Taiwan. Participants were asked to complete two questionnaires: one at the beginning of the training program and the other at the middle. Results supported our hypothesis and showed that, compared to those who were volunteers, the employees who attended the training on a mandatory basis had a higher motivation for training. Moreover, organizations that force their employees to attend a given training program send out a clear message to employees that such training is important. As employees perceive the training to be central to the achievement of organizational objectives, their training motivation increases.*

Introduction

Training is one of the most important strategies for organizations to help employees gain proper knowledge and skills needed to meet the environmental challenges (Goldstein and Gilliam, 1990; Rosow and Zager, 1988). Thus researchers have focused on exploring ways to increase the effectiveness of training.

One critical determinant of training effectiveness is the trainees' level of training motivation (Mathieu *et al.*, 1993; Mathieu and Martineau, 1997; Tannenbaum and Yukl, 1992). Noe (1986) suggested that characteristics such as motivation and attitudes are malleable individual difference factors that play a critical role in achieving training effectiveness. Even if trainees possess the ability to learn the content of a course, they may fail to benefit from training because of low motivation. Colquitt *et al.* (2000) argued that because the effects of motivational variables on learning are stronger than that of cognitive ability,



only a “g-centric” approach to trainability is not sufficient. Other researchers also suggested that the characteristics of trainees such as motivation and attitudes are more important to training success than are course-content variables (Fleishman and Mumford, 1989; Quinones, 1997). Therefore, the motivation of trainees plays an important role in the effectiveness of the training program.

Motivation involves “a choice by an individual to expend energy toward one particular set of behaviors over another” (Quinones, 1997, pp. 182-3). In a training program, motivation influences the willingness of an employee to attend training in the first place (Maurer and Tarulli, 1994; Noe and Wilk, 1993). It can also affect a trainee’s decision to exert energy toward the training program (Ryman and Biersner, 1975). Cheng and Ho (2001) reviewed studies conducted in the past decade and concluded that training motivation influences trainees’ training performance and transfer outcomes. The important role of training motivation in training effectiveness has also been confirmed by several recent empirical studies (e.g. Axtell *et al.*, 1997; Carlson *et al.*, 2000; Cheng, 2000; Guerrero and Sire, 2001; Tracey *et al.*, 2001). Tracey *et al.* (2001), for example, developed a basic managerial knowledge and skills training program with managers from 40 hotels owned by a private organization. They found that trainees’ motivation to learn positively influenced trainees’ reactions to the training program and their amount of learning. In a field study aimed at improving technical staff’s interpersonal skills at work, Axtell *et al.* (1997) found that trainees’ motivation was positively associated with immediate and long-term transfer of training after returning to their work sites. Other studies have also linked training motivation to training effectiveness, including learning and satisfaction (Guerrero and Sire, 2001), and the perceived knowledge and skill transfer (Cheng, 2000).

As trainees’ motivation to learn is an important determinant of training effectiveness, a number of scholars have called for research in examining antecedent factors of training motivation (Mathieu and Martineau, 1997; Mathieu *et al.*, 1993; Noe and Wilk, 1993; Tannenbaum and Yukl, 1992). Specific suggestions include contextual variables like training assignment, organizational climate and framing of training (Quinones, 1997). Thus, the primary purpose of this study is to investigate the influence of mandatory training assignment on trainees’ motivation to learn, and to examine the mediating role of trainees’ perceived importance of the training program.

The influence of training assignment on training motivation

Past research has suggested that environmental factors, such as materials and supplies, tools and equipment, and financial and budgetary support, influence employees’ training motivation (Guerrero and Sire, 2001; Mathieu *et al.*, 1993; Mathieu and Martineau, 1997; Tracey *et al.*, 2001). In addition to the environmental factors, training contextual factors such as participation,

framing and organizational climate have also been shown to correlate with training motivation. This study focuses on examining the effect of participation on training motivation.

“Participation” refers to employees’ participation in making pre-training decisions (Quinones, 1997; Tannenbaum and Yukl, 1992; Wagner and Gooding, 1987; Wlodkowski 1985). These pre-training decisions involve whether employees have the choice of attending or not attending training programs, or whether or not they have choices in selection of training contents. In this study, we focus on examining whether trainees are forced to attend training or attend the training program voluntarily. In other words, we examine the variable “training assignment.”

Past research found that training assignment influenced trainees’ motivation for training. Some researchers indicated that if employees had no choice of participation, their training motivation would decrease (Guerrero and Sire, 2001; Quinones, 1997; Hicks and Klimoski, 1987; Baldwin and Magjuka, 1991). For example, Hicks and Klimoski (1987) found that when trainees attended training under explicit pressure from their superiors, their motivations were lower. Ryman and Biersner (1975) conducted a research on the Navy’s SCUBA training program and found a similar result. Specifically, they found that trainees who expressed the most concern over their involvement in the experiment (i.e. being forced to attend training) were more likely to drop out of the course soon after the beginning or halfway through, whereas volunteers were apt to remain.

In contrast, Mathieu *et al.* (1993) obtained a different finding. They studied a proof-reading training program prepared for the staff of a state college administration and hypothesized that trainees who attended the training program voluntarily would have higher motivation. Unexpectedly, the result did not show that there was any association between the two variables. Mathieu *et al.* (1993) attributed the finding to the fact that, because the essence of a proof-reading program was designed to improve trainees’ skills on their current jobs, trainees with strong career goals may not have considered the program as instrumental in obtaining valued outcomes. This explanation implies that the perceived importance of trainees’ training programs may play an important role in the effect of training assignment on training motivation.

The influence of training assignment on perceived importance

Baldwin and Magjuka (1991) argued that the benefits of voluntarily attending the training program have often been exaggerated. In fact, trainers usually complain that those who volunteer for training programs are often those who need training courses least. Baldwin *et al.* (1991) further showed that trainees who were mandated to attend particular training programs were more motivated than those who volunteered. This is because when supervisors feel a particular program to be central to the achievement of organizational

objectives, they usually assign employees to attend that program. Mathieu and Martineau (1997) concluded that voluntary participation is like a double-edged sword: if people want to estimate the influence of voluntary participation on training motivation correctly, they should analyze what trainees think about the training programs. In other words, if organizations demand certain individuals or all the staff to attend a given training program, it will deliver a clear message that training is important.

The influence of perceived importance on training motivation

In addition to traditional training design factors such as appropriate training content (e.g. Ford and Wroten, 1984), clear instructional objectives and sufficient conditions of practice (e.g. Gagné *et al.*, 1992), trainees' perceived importance of a training program has been found to influence trainees' motivation for training. If trainees believe that the training programs are beneficial and important, their training motivation will increase. Noe and Wilk (1993) showed that the more benefits that employees feel they can obtain from participating in training activities, the higher their rates of participation in such activities.

Cohen (1990) found that trainees' training motivation will be enhanced if they feel that the training programs are beneficial or necessary. Clark *et al.* (1993) found that job utility and career utility have significant influences on employees' training motivation. Thus, training programs that are job- or career-related will influence employees' training motivation (Mathieu and Martineau, 1997). For example, Mathieu and Martineau (1997) mentioned that they have developed a "safety climate" training program for a team of diverse employees at a nuclear power plant. At first, employees did not pay serious attention to the training program and considered it to be a waste-of-time exercise. However, employees soon realized that they were forbidden to leave the training site, and that, in fact, executive-level managers were invited to discuss relevant issues with them. Consequently, employees' training motivation was much enhanced. Because of this finding, Mathieu and Martineau (1997) concluded that the influence of a training assignment (mandatory versus voluntary) on trainees' motivation would depend on the perceived "message" of the program. Specifically, when a lack of choice is perceived as manipulative, trainees will likely have little motivation to learn. Alternatively, when mandated training is perceived as a commitment by the organization to emphasize new skills and/or move in a different direction, employees will likely be highly motivated to learn. We believe that in business settings, a mandatory training assignment is often perceived as part of a management commitment toward skill and performance excellence.

Taken altogether, this study attempts to examine the mediating role that perceived importance plays in the relationship between training assignment and training motivation. Thus, the following is hypothesized:

H1. Perceived importance will be a mediator of the relationship between training assignment and training motivation. That is, when organizations demand that employees must attend a particular training program, employees will generate a higher perceived importance in regard to the program, which in turn will increase the employees' training motivation.

Method

Participants and procedure

Participants in this study consisted of 184 trainees who attended training programs offered by Taiwan Academy of Banking and Finance. The training programs involved introductory banking courses and financial laws. Each of the training programs lasts five to seven days and involves 20 to 40 trainees. A total of 210 trainees belonging to seven different training programs were invited to participate in this study. Participants were employees from 18 banks in Northern Taiwan. Of those participants, 184 (87.6 percent) completed the first questionnaire. Of the 184 participants, 149 (71 percent) also completed the second questionnaire in the middle (the third or fourth day) of the program. To determine whether there were any demographic differences between those who completed the second questionnaire ($n = 149$) and those who did not ($n = 35$), we conducted a series of *t*-tests. Results showed that the two groups did not differ in terms of sex ($t = 0.76, p > 0.05$), job tenure ($t = 0.23, p > 0.05$), and age ($t = 1.79, p > 0.05$). Of 184 trainees who participated in this study, 63 (34.24 percent) were men and 121 were women; their mean age was 31.8 years and the mean job tenure was 7.58 years.

The first questionnaire contained items related to training motivation (time 1), trainees' perceived importance of the training program, training assignment and the demographic variables (i.e. sex, age, job tenure), and was distributed to trainees on the first day of the training program. The second questionnaire was distributed in the middle of the program, and included items concerning training motivation (time 2) and the trainees' familiarity with the training contents.

Measures

Control variables. Sex, age, job tenure and familiarity were included as control variables. Each demographic variable was measured with one self-rated item. In addition, three items were used to assess trainees' familiarity with the training contents (e.g. "My previous job experiences and schooling have some connections with the contents of this training program."; "My job has offered me opportunities to learn knowledge and skills related to this training course"). Respondents were asked to answer the questions on a five-point Likert-type scale. The Cronbach's α of this measure was 0.71. We included familiarity as a control variable because past research has indicated that an individual's past

experience in a similar situation (i.e. high familiarity with the training contents) would lead to higher levels of self-efficacy (Bandura, 1982; 1986), which in turn would result in higher levels of training motivation (Colquitt *et al.*, 2000; Gist and Mitchell, 1992; Quinones, 1995).

Training assignment. One item was used to assess trainees' assignment status ("Is your attendance of the training program to be mandatory or voluntary?"). A two-point response scale was provided, with 1 = mandatory, 0 = voluntary. In this study, 57.61 percent of participants were mandatory trainees.

Perceived importance. A total of 12 items drawn from Noe and Wilk (1993) were used to assess trainees' perceived importance of the training program. These items represent trainees' assessment of the extent to which they can benefit from attending the training program (i.e. benefits that are job-related, career-related, and person-related). Sample items include: "Attending the training program would help me stay up-to-date on new processes and products or procedures required by my job"; "Attending the training program would increase my chance of getting a promotion"; and "Attending the training program would produce more respect from my peers". The Cronbach's α of this measure was 0.90.

Training motivation. A total of 16 items obtained from Noe and Wilk (1993) were used to measure this construct. Sample items include: "I try to learn as much as I can from the training program", "Taking training courses and seminars is not a high priority for me" (reverse scored), and "I am willing to exert considerable effort in the training program in order to improve my skills". This measure was distributed to the trainees twice to capture trainees' motivation for training at the beginning of the training (i.e. training motivation time 1, $\alpha = 0.85$) and the middle of training (i.e. training motivation time 2, $\alpha = 0.83$). Note that training motivation time 2 was administered at the middle rather than at the end of training. This is because the intended construct of measurement is trainees' decisions to exert energies toward learning, rather than their motivations toward transfer.

Results

The means, standard deviations and intercorrelations of all variables included in this study are presented in Table I.

Results of correlations among the variables revealed the following information. First, there were positive correlations between training motivation time 1 and training assignment and perceived importance ($r = 0.20$ and 0.49 , respectively; both $p < 0.01$), suggesting trainees' training assignment status and the perceived importance of training had significant influences on training motivation time 1. Second, there were positive correlations between training motivation time 2 and familiarity, training assignment, perceived importance and training motivation time 1 ($r = 0.39$,

Variable	Mean	SD	1	2	3	4	5	6	7	8
1 Sex	0.34	0.48	–							
2 Age	31.70	8.43	0.12	–						
3 Job tenure	90.98	94.64	–0.09	0.74**	–					
4 Familiarity	6.23	2.09	0.10	–0.38**	–0.52**	0.71				
5 Training assignment	0.58	0.50	0.09	–0.13	–0.21**	0.23**	–			
6 Perceived importance	31.86	6.90	0.02	0.09	–0.02	0.41**	0.18*	0.90		
7 Training motivation time ^a	31.55	5.81	0.06	0.02	–0.08	0.35**	0.20**	0.49**	0.85	
8 Training motivation time ^b	31.02	5.43	0.08	–0.04	–0.16	0.39**	0.24**	0.44**	0.94**	0.83

Notes:

^aValues on the diagonal are Cronbach's alpha

^b*n*=184, except for familiarity and training motivation time 2 (*n* = 149)

* *p* < 0.05; ** *p* < 0.01

Table I.
Means, standard
deviations and
correlations among
variables

0.24, 0.44 and 0.94, respectively; and all $p < 0.01$), suggesting familiarity, training assignment, perceived importance and training motivation time 1 had significant influences on training motivation time 2. Third, both perceived importance and familiarity were positively related to training assignment ($r = 0.18$ and 0.23 , respectively; and $p < 0.05$ and 0.01 , respectively), suggesting that mandatory trainees were likely to have both higher perceived importance and greater familiarity with the training contents. Fourth, there was a negative correlation between age and familiarity ($r = -0.38$; $p < 0.01$), indicating that older trainees were generally less familiar with the training contents. Finally, job tenure correlated negatively with familiarity and training assignment ($r = -0.52$ and -0.21 , respectively; both $p < 0.01$), indicating that higher-tenure trainees had less familiarity with the training contents and were more likely to attend training voluntarily.

To determine whether the perceived importance was a mediator of the relationship between training assignment and training motivation, we utilized the statistical software of SPSS 8.0 and took a three-part hierarchical regression analysis recommended by Baron and Kenny (1986). As suggested, three regression equations should satisfy the tests of the linkages of the mediation model. First, the independent variable (i.e. training assignment) must affect the mediator (i.e. perceived importance of training); second, the independent variable should be shown to affect the criterion variable (i.e. training motivation) in the second equation; and third, the mediator should influence the criterion variable in the third equation. If these conditions all hold in the predicted direction, the effect of the independent variable on the criterion variable must be less in the third equation than in the second. As shown in Table II, training assignment was a significant predictor of:

- perceived importance ($\beta_5 = 2.59$, $p < 0.05$); and
- both training motivation time 1 and training motivation time 2 ($\beta_5 = 2.18$ and 2.11 , both $p < 0.05$).

In addition, perceived importance was a significant predictor of both training motivation time 1 and training motivation time 2 ($\beta_6 = 0.39$ and 0.25 , both $p < 0.01$) when training assignment was also included in the regression equation. This last regression equation showed that the beta weight of training assignment was reduced for both training motivation time 1 and training motivation time 2 from its level in the second equation and became insignificant ($\beta_5 = 1.17$ and 1.62 , both $p > 0.05$), indicating a support of our hypothesis that perceived importance was a mediator of the relationship between training assignment and training motivation.

As for the relationship between control variables and training motivation, Table II (part 3) shows that all demographic variables (i.e. sex, age, job tenure) had no significant influence on training motivation time 1 and motivation time 2. Only the familiarity had a significant positive influence on motivation

Dependent variable	Sex (β_1)	Control variable			Independent variable		R^2	Perceived importance as a mediator	
		Age (β_2)	Job tenure (β_3)	Familiarity (β_4)	Training assignment (β_5)	Perceived importance (β_6)			
<i>Part 1</i>									
Perceived importance	-0.53	0.20*	-0.01	-	2.59*		0.06*	159	
<i>Part 2</i>									
Motivation time1	0.18	0.11	-0.01	-	2.18*		0.05*		
Motivation time2	0.18	0.18*	-0.01	0.97**	2.11*		0.20**		
<i>Part 3</i>									
Motivation time1	0.39	0.03	-0.01	-	1.17	0.39**	0.26**		
Motivation time2	0.45	0.11	-0.01	0.55*	1.62	0.25**	0.28**		

Notes: * $p < 0.05$; ** $p < 0.01$

Table II.
Analysis of
perceived
importance as a
mediating variable

time 2 ($\beta_4 = 0.55, p < 0.05$). This suggests that trainees' motivation would increase if trainees were more familiar with the training contents.

Discussion

Results of this study supported the hypothesis that perceived importance mediates the relationship between training assignment and training motivation. Past research indicated that an individual's training motivation would be higher if the training assignment was mandatory rather than voluntary (Baldwin and Magjuka, 1991; Wagner and Gooding, 1987). Baldwin and Magjuka (1991) suggested that when top management felt a particular training program to be beneficial for the attainment of organizational objectives, they would force employees to attend the programs. Moreover, Mathieu and Martineau (1997) indicated that when organizations request that certain individuals or all employees complete a given training program, it probably sent out a message that training is important. Results of the present study were shown to be consistent with Baldwin and Magjuka (1991); Mathieu and Martineau (1997) viewpoints, and showed that a mandatory training assignment affects trainees' perceived importance regarding the training program, which in turn influences their motivation for training.

This finding has one practical implication. Managers should emphasize the importance and necessity of the organization's training programs to ensure that trainees have sufficient training motivation. In this way, trainees' learning and their subsequent transfer of training can be maximized. Of course, such a declaration should be realistic and appropriate. Hicks and Klimoski (1987) showed that realistic information about training was more helpful for trainees' pre-training preparations and motivations than the positive but exaggerated one.

Results of this study also found that trainees' familiarity with the training contents was positively related to their motivation for training. This finding was consistent with results of previous studies. For example, Bandura (1982,

1986) proposed that in a similar circumstance, trainees' work-related experience would affect their self-efficacy. Other researchers further indicated that self-efficacy has a positive and significant influence on training motivation at each stage of training activities (Cheng, 2000; Colquitt *et al.*, 2000; Gist and Mitchell, 1992; Gist *et al.*, 1989; Quinones, 1997). Thus, when organizations ask employees to attend training programs, they should provide necessary information to the trainees to increase trainee familiarity with the contents of training. Consequently, the motivation among trainees could be enhanced (Colquitt *et al.*, 2000; Goldstein, 1993; Mathieu and Martineau, 1997).

Past studies found that age correlated negatively with training motivation, learning and self-efficacy; older trainees have been shown to demonstrate lower performance on several training outcomes (Colquitt *et al.*, 2000; Gist *et al.*, 1988; Guerrero and Sire, 2001; Martocchio, 1994; Martocchio and Webster, 1992). However, the present study found that there was no negative relationship between age and training motivation. This may be caused by the restriction of range in age in this study, as the standard deviation of the age of participants in this study (i.e. $SD = 8.26$) was lower than those found in Martocchio (1994); Martocchio and Webster (1992) (i.e. $SD = 9.29$ and 11.58 , respectively).

The present study has one strength. As oppose to cross-sectional survey studies, we have measured the training motivation variable at two different points in time. One of the trainees' motivations was measured at the beginning of the training program, and the other was measured at the middle of the training program. The purpose of using the cross-lagged measures was to reduce the possibility of common method bias (Posakoff and Organ, 1986) and to increase the clarity of the causal interpretation of the relationships examined.

To expand on the current findings, future research may focus on five specific areas. First, this study found that the mandatory training assignment itself creates a sense of importance on the part of the trainees, which in turn enhances trainees' motivation for training. However, other contextual determinants of trainees' motivation regarding training, such as framing and post-training accountability, remain relatively unexplored. Future research should examine the effects of framing (e.g. training is a necessity of employee survivals vs. training is a good way to improve employee job-related skills) on trainees' perceptions concerning the importance of training and the subsequent training motivation.

Second, there were a few studies examining the effects of person (e.g. anxiety or conscientiousness) \times context (e.g. computer-based training). Interactions on learning (e.g. Howell *et al.*, 1986). Thus, future research may investigate the interactive effects of training assignments and personality (e.g. locus of control) on employees' perceived importance of training. For example, Noe (1986) proposed that trainees with internal locus of control generally have more positive learning attitudes toward training than those with external locus of control, because the former believe their participation of the training program

will bring them tangible benefits. Thus, the mandatory training assignment would produce less positive influence on the perceived importance for trainees with internal locus of control.

Third, past research showed that environmental characteristics (e.g. tools and equipment, time availability and financial support) would influence individuals' motivation to learn and transfer (Mathieu and Martineau, 1997). Trainees having sufficient supplies, services, and resources necessary to perform their job would yield higher motivation, whereas a lack of the same would produce frustration (Kopelman *et al.*, 1990). Future research may investigate the interactive effects of training assignments and organizational support (e.g. financial support) on employees' training motivation. We expect that the mandatory training assignment would produce less positive influence on training motivation for trainees with high level of perceived organizational support.

Fourth, this study did not include training outcome variables such as the amount of learning and training transfer. To highlight the important role of training motivation, research should be conducted to investigate the influences of training assignment and perceived importance on trainees' motivation to learn and their subsequent learning and transfer outcomes.

Finally, training programs in the present study only included introductory banking courses and financial laws. Future research should investigate the interactive effects of training assignments and trainees' perceived job-relatedness regarding different types of courses on employees' training motivation. We expect that the mandatory training assignment would produce less positive influence on training motivation for trainees who perceive the training course to be highly job-related.

In summary, for training to be effective, managers should take into considerations the employees' motivation for training. Baldwin *et al.* (1991) found that when employees are mandated to participate in the training program, employees' training motivation will not be weakened. This study extends previous research by demonstrating that mandatory training assignments would lead to higher perceived importance of training, which in turn would increase trainees' motivation for training. Thus, to raise employees' perceived importance of training and training motivation, managers should clearly indicate organizations' expectations to the employees before their training assignments.

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