Identification of key factors of training transfer

by Hery Suliantoro

RESEARCH ARTICLE | MAY 16 2023

Identification of key factors of training transfer: A study literature ⊘

Heri Ristianto ✉; Arfan Bakhtiar; Hery Suliantoro

Check for updates

CrossMark

View Online

Export Citation

Articles You May Be Interested In

Risk assessment on electric motorcycle product development at PT VIS

AIP Conference Proceedings (May 2023)

The impact of critical success factor of lean six sigma implementation towards the improvement of business performance on low-cost hotel industry: A literature review

AIP Conference Proceedings (April 2020)

Identification of dominant waste in the production process at the garment industry

AIP Conference Proceedings (April 2023)

Identification of Key Factors of Training Transfer: a Study Literature

Heri Ristianto[1, a)], Arfan Bakhtiar[1,b)], and Hery Suliantoro[1,c)]

[1]*Industrial Engineering Department, Diponegoro University, Semarang, Central Java, Indonesia*

[a)] *Corresponding author:* heri.ristianto@gmail.com,
[b)] arfanbakhtiar@lecturer.undip.ac.id,
[c)] herysuliantoro@lecturer.undip.ac.id

Abstract. Transfer training is a key process of applying training results into daily work. About 20% of training participants have successfully applied knowledge from training into their daily work. Since this figure is still low, it is necessary to make improvement to increase the percentage of successful transfer training. Implementing an integrated strategy from the beginning is one of the alternative solutions to increase the success of transfer training. In general, a training goes through three phases, namely pre-training, during training and post training. Since these three phases are influenced by different factors, the strategies that will be applied to each phase will be different. Hence, influential factors in each training period need to be identified and used as reference to develop a strategy in training transfer improvement. This study aims to identify the factors that influence transfer training through a literature study. From the process of study literature, there are fourteen influencing factors that are obtained. The difference between this study and the previous research is that this study tries to classify factors into three stages of training (pre, during, and post training). This classification will be the company's reference in making improvements based on the dominant factors in each phase.

INTRODUCTION

Transfer training is the process of applying the results of training into daily work [1]. According to research by Wexley and Latham (2002) in (Awais Bhatti et al (2014), it shows that the training material applied in daily work is around 40%. This percentage of transfer training has decreased by 25% within one year after implementation. Another study conducted by London & Flannery (2004) shows that the number of participants who undertake transfer training is only around 10 to 20% [2]. The low percentage of transfer training means that the training program and the investment spent will not have optimal impact on organization in increasing its excellence [3]. Knowing which factors that have dominant influence is one of the efforts that the organizations can make to improve the transfer training process. This factor can be used by organizations to determine the right strategy so that the training transfer process can be successful.

Several previous researches on factors that influence transfer training have been conducted by Lee et al (2014), Awais Bhatti et al (2014), Alvelos et al (2015), Iqbal & Dastgeer (2017), Na-nan et al (2017) and Ng & Ahmad (2018). Research from Lee et al (2014) examines the effect of pre-training performance factors with factors in post training phase, such as supervisor support [4]. Work environment factor is a factor studied by Awais Bhatti et al (2014), Iqbal & Dastgeer (2017), Na-nan et al (2017) and Ng & Ahmad (2018). Perceived content validity & instrumentally factors (intrinsic reward and extrinsic reward) are factors that are considered as factors that can influence training transfer. Previous researchers only tested the factors that influenced transfer training in general but did not show the factors that had dominant influence on the transfer training process at either the pre-training, during training, or post training stages. Knowing the factors that most influence the pre-training, during training, and post-training stages will ease the organizations in developing strategies so that the training transfer efforts can improve the performance.

The purpose of this study is to identify factors that influence training transfer by collaborating all factors from the research of Lee et al (2014), Awais Bhatti et al (2014), Alvelos et al (2015), Iqbal & Dastgeer (2017), Na-nan et al (2017) and Ng & Ahmad (2018). The difference between this study and the previous research is the study will collaborate all factors and also determine that these factors are dominant in the pre-training, during training or post training stagesFormatting the title, authors and affiliations.

STUDY LITERATURE

Training Step

Training is a planned process that aims to change attitudes, knowledge, skills through learning process to create effective performance. In implementing a training job, it aims to develop individual abilities so that the skills needed in the future can be fulfilled [5].

Board (2005) states that, in general, training includes three stages, namely pre-training, during training, dan post-training. Pre-training is a stage that refers to activities that occur before the training process to support the success of the transfer process. During training is a stage that refers to activities that occur during the training process to support the success of the transfer process. Post training is a stage that refers to activities that occur after the training process to support the success of the transfer process [6].

Training Transfer

Transfer training is the process of applying the results of training into daily work. Transfer training is the key to success in improving individual performance, so that organizational performance will increase along with the increasing ability of individuals who have gone through training [1]. Failure to transfer training will result in the loss of the benefits of training if it is related to company performance (Yamnill & MC Lean, 2001).

RESEARCH METHODS

The stages in this research are: [1] looking for references on transfer training on science direct, emerald insight, willey and google scholar, [2] reviewing the abstracts of the articles found in stage 1, [3] selecting the articles to be used in this study. The articles chosen were published less than 10 years and the article specifically discussedabout factors in transfer training associated with improved organizational performance, [4] summarizing the influential factors from previous studies. The results of the four stages in this study are shown in table 1.

RESULT

Based on the results of the literature study conducted, a summary of the factors that influence the success of training transfers in improving daily performance can be seen in table 1.

TABLE 1. Training Transfer Result (Elaborated by Author).

P#	Dimension	Dof	Indicators	Dof	S**	R*
Pre	Transfer design	Schematic plan designed to apply the training result *Or Training approaches that help trainees understand the principles and concepts provide trainees the opportunity to practice enhancing learning to work. Training*	Trainee'scompetence before training	Trainee'scompetence before training	NC M (3) I (6)	3,6,9,1 0,11
			Trainee'scompetence during training	Evaluation on trainee's competence during training process		11
			Trainee'scompetence to implement new knowledge at his/her daily work	Evaluation on trainee's competence after training		11
			Training identification needed	Identification on training needs		12
Pra	Motivation	The trainees' willingness to learn or transfer the acquired knowledge	Motivation to learn	The willingness to acquire knowledge and skills	D	2,7,12, 13,14
			Motivation to transfer	The willingness to acquire knowledge and skills to do the duties	D (2) Mo (4,5) I(8)	2,4,5,7 ,8,14

TABLE 2. Training Transfer Result (Elaborated by Author).

P#	Dimension	Dof	Indicators	Dof	S**	R*
			Career Planning	There is a connection between the implementation of training and career path	MO	14
			Job support	Job support is part of a work-related system in an organizational setting, defined as the degree to which jobs are designed to teach employees new things and facilitate their learning.	Mo	13
			Learner readiness	Individual characteristics of each trainees related to his/her readiness in learning and transferring the abilities acquired	NCM	3,13
Pre	Pre training performance	Assesment done by Human resources Department before the trainee join the training.	Pre training performance	The results of assessment conducted by the human resource department before the participants attend the training.	Mo	2
Pre	Performance self-efficacy	The trainee's confidence to apply the acquired skills in order to achieve good performance	Performance self-efficacy	The trainee's confidence to apply the acquired skills in order to achieve good performance	NCM(3) I (4)	3,4
Duri ng	Personality traits	Personality traits based on universal personality theory that can represent the differences and uniqueness of the the trainees' characteristics in both the training program and in the workplace.	Conscientiousness	Awareness associated with quality, where training participants become goal-directed, persistent, reliable, and organized	I	1

TABLE 3. Training Transfer Result (Elaborated by Author).

P#	Dimension	Dof	Indicators	Dof	S**	R*
			Extraversion	Openness that characterizes personality. This openness can be recognized from the character of someone who is ambitious, sociable, cheerful, assertive, sensational, and active.	I	1
			Agreeableness	Agreeableness is a personality characterized by an altruistic, sympathetic, and helpful character. Another characteristic of agreeableness issomeone who is polite, flexible, trustful, kind, cooperative, forgiving, gentle, and tolerant	I	1
			Proactive personality	A person with a personality type who has the tendency to take action and change the environment to manifest someone'sgoal	**I**	**7,14**

P#	Dimension	Dof	Indicators	Dof	S**	R*
Duri ng	Perceived Content Validity	The training materials have similarity with the actual work	Perceived Content Validity	The materials in traininghave similarity with the actual work	NCM (3) I (6)	3,6
			Perceived organizational support (POS)	Someone's perception concerning the extent to which the organization supports and commit to his/her well-being	I	1,6
Post	Social Support(1,6)	Social support that comes from the organization, supervisors and colleagues.	Supervisor support	The degree to which supervisors consistently behave in accordance with training objectives and facilitate the transfer of training at workplace.	I	1,2,3,6
			Peer support	The degree to which colleagues encourage and strengthen trainees in their effort to learn and apply the training in the workplace.	I	1,2,3,6

TABLE 4. Training Transfer Result (Elaborated by Author).

P#	Dimension	Dof	Indicators	Dof	S**	R*
			Attitude transfer	Their level of satisfaction, dedication and positive outlook on the task.		1,5
			Organization learning support	Attitude of organizational support for learning process	I	2,5
			Technological support	Availability of technology infrastructure to support the trainee's daily work	I	5
			Opportunity to use or Job environment feedback request	The opportunity provided by the organization or company for employees to use or take advantage of the skills obtained from training.	I	5,10
Post	Motivation to improve work through learning (MTIWL)	Motivation to improve work outcomes by engaging in training or learning activities and using what is learned to perform job functions differently	Motivation to improve work through learning (MTIWL)	Motivation to improve work outcomes by engaging in training or learning activities and using what is learned to perform job functions differently	Me	1,6
Post	Training transfer (1,5)	The ability of training participants to apply the training results program into their daily work	Knowledge transfer	Participants' level of understanding of the process and the relevant steps of the training material if associated with the work.		**1,6**
			Skill transfer	The ability of participants to solve work-related problems, as well as their decision-making skills, when faced with a challenge.		1,6
Post	Positive Training	The success achieved by the training participants in applying the material obtained during the training	Positive Training	The success achieved by the training participants in applying the material obtained during the training		6,8,9, 10,11

P#	Dimension	Dof	Indicators	Dof	S**	R*
Post	Behavioural	Reaction from training participant	Training transfer behaviour	Behaviour that occurs after participants receive training	D	2

TABLE 5. Training Transfer Result (Elaborated by Author).

P#	Dimension	Dof	Indicators	Dof	S**	R*
Post	Instrumentally	Certain rewards that will be received by participants after carrying out the transfer process from the training that has been carried out	Intrinsic rewards	Specific activities or jobs assigned after running training.	NCM	3
			Extrinsic rewards	Remuneration and career advancement opportunities earned	NCM	3
Post	Training retention	The extent to which the trainee maintains content after the training is over	Training retention	The extent to which the trainee maintains content after the training is over	NCM (3) I(4)	3,4,13
Post	Affective reaction	Evaluation of the training that has been carried out	Affective reaction	Evaluation of the training that has been carried out	NCM(3)	3,12

R* means:	Dof	Indicators	Dof
1→[1]	4→[4]	8→[8]	12→[12]
2→[2]	5→[5]	9→[9]	13→[13]
3→[3]	6→[6]	10→[10]	
	7→[7]	11→[11]	

S** means:		P# means
I→ Independent	Me→ Mediating	Pre→ Pre training phase
D→Dependent	Mo→ Moderating	Dur→During training phase
	NCM→Not clearly mentioned	Post→ Post training phase

DISCUSSION

The success of the transfer training process is the key of success in improving daily work through new knowledge and skills that are acquired during training. The ability to perform training transfer is a critical period that determines whether [1] the new skills and knowledge acquired will increase work performance, [2] work performance after training is stagnant (does not experience an increase or decrease) or [3] the work performance after going through training decreases. The three conditions in the post training period are largely determined by the ability to carry out training transfers. These three conditions can be illustrated in figure 1. Each period, as illustrated in figure 1, has a dominant variable that affects and is interconnected with other variables that are in the same period or different periods. The training design variable is the most important variable in the pre-training period. Nevertheless, the variables that dominate during the training period will be different and the post training period is also influenced by different variables. Therefore, knowing the variables that have a dominant effect on each phase will help the organization determine the right strategy. Identification of the dominant variable in each phase is the first step for the organization to achieve condition 1 and avoid conditions 2 and 3 (see figure 1). Nevertheless, based on the study literature conducted, the classification of the dominant variables in each training phase has not been carried out.
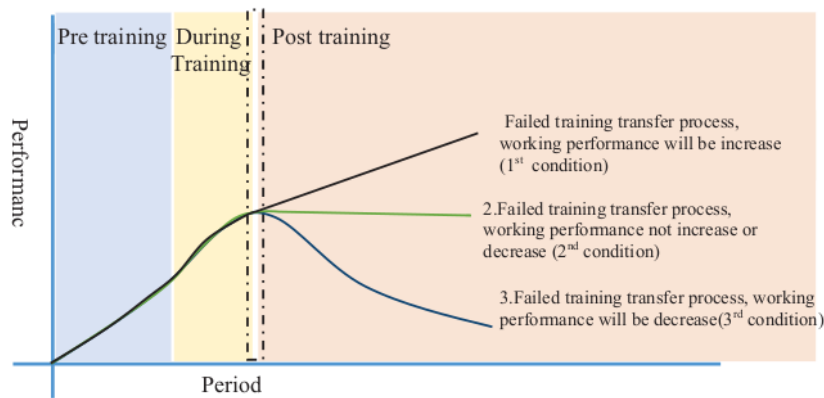
FIGURE 1. Relationship Curve Between Training Period and Performance (elaborated by author).
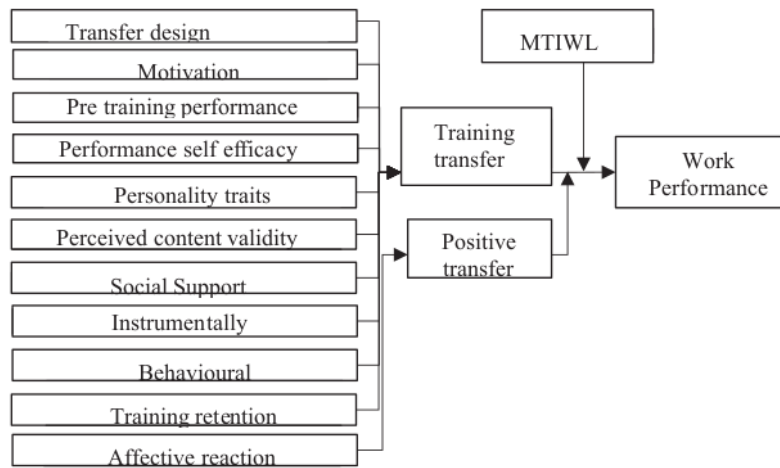

FIGURE 2. Training Transfer Purposed Framework.

Based on the results of the literature study, there are fourteen dimensions and thirty-two indicators that influence the training transfer process. This study tries to classify the influential variables based on the training period. This classification aims to determine the dominant variable of each phase and this classification try to fill the gap from previous research, so that this variable will be used to develop a successful training transfer strategy. The strategy used to increase the success of transfer training must apply an integrated approach. The purpose of the integrated approach in this research is a continuous strategy from the pre-training phase to the post-training phase, for example: the integrated concept can be illustrated in the case of the mismatch of training curriculum arranged in the pre-training period that prevents participants from transferring new knowledge to their daily work. From this illustration, the case shows that successful training as an effort to improve daily work requires integration from the beginning of the pre-training period to the post training period. From the results of the study, the variables that affect the success of training transfer that makes work performance increases can be seen in figure 2. In figure 2, training transfers are influenced by fourteen variables. In the previous research, these fourteen variables are seen as independent variables, but these variables may have connection which influences each other, such as variable motivation with training retention variables or instrumentally variables (this variable shows the rewards obtained) with motivation variables. For example, when training about technology is held, participants who successfully adopt the system taught in their daily work will be included as performance achievements that determine the amount of the bonus, so that the transfer training can run successfully. The framework in figure 2 is an initial proposed framework that will be developed through further research on the relationship between variables.

CONCLUSION

Based on the literature study process, there are fourteen variables that determine the success of the training transfer process in improving daily performance. The fourteen variables identified includes: transfer design, motivation, pre-training, performance, personality traits, perceived content validity, social support, instrumentally, behavioral, training retention, affective reaction, training transfer, positive transfer and MTIWL. The results of the literature study have classified the fourteen variables into pre-training phase, during training phase, and post-training phase. This classification will ease the organizations in developing strategies based on these variables. The classification results of the study literature will go through a validation process in future studies. Another aspect that will be conducted is investigating the interplay of variables, besides, determining the period when the variable has a dominant influence is important. This is because knowing the dominant variables in each period (pre training, during training and post training) will make it easier for companies in developing a more integrated strategy in every training conducted. Further research that can be done is related to the influence analysis of the fourteen variables that has been identified. In addition, identifying variables that affect the pre training period, during training, and post training can also be carried out as further research.

REFERENCES

1. K. H. Ng and R. Ahmad, Pers. Rev. **47**, 39 (2018)
2. C. Lee, H. Lee, J. Lee, and J. Park, Int. J. Hum. Resour. Manag. **25**, 2837 (2014)
3. M. Awais Bhatti, S. Ali, M. F. Mohd Isa, and M. Mohamed Battour, Perform. Improv. Q. **27**, 51 (2014)
4. K. Iqbal and G. Dastgeer, J. Manag. Dev. **36**, 1270 (2017)
5. K. Na-nan, K. Chaiprasit, and P. Pukkeeree, Ind. Commer. Train. **49**, 303 (2017)
6. R. Alvelos, A. I. Ferreira, and R. Bates, Eur. J. Train. Dev. **39**, 484 (2015)
7. M. Vignoli and M. Depolo, Pers. Individ. Dif. **141**, 62 (2019)
8. P. Ghosh, R. Chauhan, and A. Rai, Ind. Commer. Train. **47**, 201 (2015)
9. V. Dermol and T. Čater, Pers. Rev. **42**, 324 (2013)
10. A. D. Diamantidis and P. D. Chatzoglou, Int. J. Train. Dev. **18**, 149 (2014)
11. Y. Yaqub, A. K. Singh, and T. Dutta, J. Work. Learn. (2021)
12. A. D. Kodwani and S. Prashar, Evidence-Based HRM (2021)
13. E. J. Kim, S. Park, and H. S. (Theresa) Kang, Eur. J. Train. Dev. **43**, 306 (2019)

Identification of key factors of training transfer