
TRAINING EVALUATION AND MOTIVATION TO TRANSFER TRAINING - A REVIEW OF LITERATURE

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DOI# 10.23862/kiit-parikalpana/2017/v13/i2/164517

ABSTRACT

In the current scenario training plays a vital role for employee development. The worth of training can be assessed by evaluation. The training is said to be effective when the trainees will apply the learning back to their job and life. Transfer of training in soft skill training is not possible without motivation to transfer. The purpose of this literature review is to explore different models theories and concept of training evaluation, motivation to transfer training. Also different factors contributing to motivation to transfer training has been studied. Basing the extant literature study, a conceptual model has been developed evaluate the factors before and after training which influence motivation to transfer training in soft skill training programmes.

Key Words: *Training, Training Transfer, Motivation to Transfer, Training Evaluation, Soft Skill Training*

INTRODUCTION

Modern management gives importance to employee development. In the current scenario training plays a very important role for enhancing individual and organizational performance. Training is defined as an activity which helps in changing people's behavior. It encourages the enhancement of the knowledge, skill and attitude of the

people for a specific objective. Bramley (2004) defines training as "a process which facilitates learning so that people can become more effective in carrying out their work".

Research shows that organizations are investing huge amount of money on training (Holton, Bates & Ruona, 2000) with the anticipation that it leads to better individual

as well as organizational performance, and productivity at work, more revenues, reduction in employee turnover, better customer satisfaction and enhanced motivation level of employees (Velada et al, 2007). Effective application of the learning back to the work setting is big concern for the organisations. Training has no value until and unless it is being practiced by the trainees to their job as well as personal life. Currently, the focus of organisations is on soft skill/life skill training programmes apart from technical training programmes, because a happy and satisfied employee can perform better than an unhappy and dissatisfied one. Bradley, (2011) argued that training should facilitate employees to perform well in their work, as well as lessen frustration and over anxiety created due to unfamiliar work hassle. Soft skills are defined as important job-related skills that have little or zero interaction with machines and it can be applied to multiplicity of job contexts.

The principal objective of the present literature survey is to understand the existing literature on the concept of training evaluation, motivation to transfer training and soft skill training programmes, different models and theories and the most influential factors accountable for motivation to transfer training.

Evaluation of the Training

Evaluation is defined by Bramley (2004) as a process to determine the values of something. The purpose of evaluation is to know whether training investments are

justified in terms of money and time. Evaluation helps in assessing and enhancing the quality of content, delivery and also the decision concerning the continuity of the training programme, it binds accountability of training practitioners (Griffin, 2012). According to Jain & Agrawal (2007) the important steps of training are analysis, design, development, implementation, and evaluation. Santos and Stuart (2003) also described four stages of training such as “identifying needs, planning, delivery, and evaluation. The most problematic part of training function is the evaluation part. Organizations usually pay little attention to assess the effectiveness of the training programmes. The purpose of evaluation is mainly to exhibit and enhance training effectiveness (Ogundeji, 1991).

Phillips (1996), defines evaluation of training as ‘a systematic procedure to find out the value of training and its effect on the organization’. Broadly evaluation process includes all the measures to put a value on people, events, processes or things (Rossi & Lipsey, 2004). Scriven (1999) recommended three basic questions to be focused while doing evaluation such as is it worth of doing, is there any better approach for conducting it and whether the evaluation lead to the expected impact.

Different Models of Training Evaluation

There are many models of training evaluation developed by different

researchers. Five emerging models are presented in this section.

Kirkpatrick's Training Evaluation Model

Kirkpatrick, (1979) has established four stage criteria (Reaction, Learning, Behaviour and Results) for training evaluation. Reaction data reflects the likeliness of a particular training programme. Learning focuses on assessing the knowledge gained during the training. Behaviour measures application of learning back to job and results deal behavioural changes at work. Level- 3 (behavior) is concerned with training transfer. Results indicate the extent of improved individual and organizational performance.

Among all the evaluation models Kirkpatrick's training evaluation model is one of the widely accepted model (Kaufman & Keller 1994; Bramley & Kitson, 1994; Phillips 1997). Cascio (2014) also said, it is the widely accepted model in the field of organizational psychology. Many studies conducted in this field support the Kirkpatrick Model of training evaluations (e.g. Fromkin et al., 1975; Latham et al., 1975, Clement, 1978 cited by Noe & Schmitt, 1986). However in later parts, the model gets criticized by many (Swanson & Holton 1999; Holton, 1996). The model was opposed by Holton (1996) and he argued that the association between the levels is not strong. Other researchers found that true hierarchical relationship does not exist between the levels (Clement, 1982;

Brewer, 2007). The reaction of the trainees (Level 1) is not bound to be positive for experiencing knowledge acquisition (Level 2). Behaviour change (Level 3) in the job, might also happen without learning from the training (level-2). Warr, Allan, & Birdi (1999) argued that significant relation exists among reaction, benefits of the training, motivation to apply and Learning (Level 2). No significant relationship exists job behaviour, learning and reaction. But Performance in the job and learning are positively related (Warr & Bunce, 1995). However Kirkpatrick (2009) argued that the association between constructs of his model is linear: for the effectiveness of training programme trainees should react favourably and behaviour change will not happen without learning.

Kaufman's Evaluation Model

Kirkpatrick's innovative four-level model has been expanded by other evaluators. (Kaufman & Keller, 1994a) added a fifth level which addresses societal issues. They tried to justify that the main rationale of the model by Kirkpatrick was to assess training and now companies are interested for evaluating other kind of developmental events. Kaufman level 5 which addresses societal issues extend evaluation beyond the scope of the organisation and intended to find how the evaluation process affects the society and the surroundings near of the organisation.

ROI Model by Phillips

Return on investment (ROI) concept is

applied in industry to determine the financial worth of an investment (Phillips, 1996). There is much similarity between Phillips's evaluation model and Kirkpatrick's model. ROI as the fifth level is a new addition in his model. To capture the financial value of the training programme the ROI must be calculated (Phillips & Phillips, 1997). The different phases of Phillips's evaluation model are Reaction and Planned Action (level-1), Learning (level-2), Job Application (level-3) Business Results (level-4) and return on Investment (level-5). The first level deals trainees reaction about the programmes and their planning regarding the material of the training. Level-2 (learning) assesses the magnitude of improvement in knowledge, skill and attitude after attending the programmes. Level-3 (Job application) assesses whether the trainees applied the learning in their job. Level-4 (Business result) measures the whether the training leads to any tangible results and level-5 (Return on Investment) deals with the cost benefit analysis. ROI assesses whether the monetary values exceed the cost of the training programme.

The first level of evaluation of ROI model, is similar to reaction measure of Kirkpatrick's model. Phillip's model incorporates the application of learning by the participants from the training programme. Few other researchers explained that ROI is already embodied in level 4 results of Kirkpatrick's model, hence there is no need of the fifth level (Lanigan, 1997). In response it has been

argued that the fifth level is based on a cost-benefit analysis which is mandatory to calculate ROI, which in turn helps to calculate the monetary worth of the training programme (Phillips, 1996).

CIRO Model by Warr, Bird, & Rackham

The phases of CIRO model are Context, Input, Reaction, and Outcome (Warr, Bird, & Rackham, 1970). The purpose of context evaluation is proper training need analysis. There are three objectives in the context level i.e ultimate, intermediate and immediate. The input evaluation deals with effective planning, design of the training, delivery and management to achieve the effectiveness of the training programme. Reaction evaluation deals with the satisfaction of the trainees about the training. And finally outcome evaluation measures the results of the training programmes.

In this model context and inputs analysis are considered to be mandatory before reactions and outcome assessment (Santos & Stuart, 2003). The basic difference between CIRO model and Kirkpatrick model is the CIRO evaluation model targets the activities both before and after the training programme. This model get criticized because it does not take in to account the behaviour. The model is suitable to managerial levels than for lower level employees.

CAIPO Model by Easter- Smith

Another model was developed by Easter-Smith in 1986 which includes: context,

administration, inputs, process and outcomes (Easterby-Smith, 1994). Context evaluation looks out different aspects out of the box of the training program i.e. work place supports to the trainees. The main goal of administration evaluation are pre and post training activities such as nomination, selection, briefing of training, and follow-up action and post-course evaluation. Inputs Evaluation critically analyses methodology & subject matter. Evaluation concerned with process deals with experience of the trainees and the actual procedure applied throughout a training programme and experience of the participants. Outcome evaluation measures the change in knowledge, skills, attitudes and behaviour of the person and overall performance of the organization. The techniques used in CAIPO evaluation may be alike to other evaluation models. But here, the evaluator gets a series of options for conducting evaluation.

In spite of the criticism put by many Kirkpatrick model is the most widely accepted model because of its simplicity. Toole (2009) opined that in the year 2009 Kirkpatrick model celebrated its 50th anniversary and still it is the highly influential approach being used across the world for instructor led and content based training. It is made an outstanding contribution to the field of evaluation. In spite of the criticism this model has proved to be highly significant and influential (Santos & Stuart, 2003).

Major Gaps

Literature on training evaluation shows that the different procedures for assessing training are not simple rather appears complex and confusing. There are many models or methods which often creates panic among practitioners. According to Spitzer & Conway (2002) the causes for lack of training evaluation are in appropriate methods, lack of focus on pre training assessment, lack of clarity regarding linking training to business results. Hence evaluating the transfer of training is mostly overlooked, in spite of many training transfer models being presented by researchers (Noe & Schmitt, 1986; Baldwin & Ford, 1988; Thayer & Teachout, 1995; Holton III, 1996; Tracey, J et al., 2001).

Motivation to Transfer Training

In the field of training transfer, motivation to transfer plays a very vital role. In spite of many efforts transfer problem is of great headache for organizations (Baldwin & Ford, 1988). Training transfer is the effective implementation of attitude, knowledge and skills back to the professional life after attending the training programme (Baldwin & Ford, 1988). Training transfer therefore, is concerned with actual learning from training. Hence training transfer is considered as behavior change in work place and the new learning form the training must be relevant to the context of the job, and there should be continuity in application of the learning over a period of time. Kirkpatrick (1996)

stated that training transfer is possible to measure and it can be done by measuring participants learning and reaction. Motivation to transfer is the pre condition for actual transfer of training.

According to Bates, Kauffeld, & Holton (2007) 'motivation to transfer training is the magnitude, direction and continuous effort to implement the knowledge and skills gained from the training in the work place. In other words the interest of the trainees to use the new learning in the job is called motivation to transfer training.

Factors Influencing Motivation to Transfer Training

There are many factors that can facilitate or hinder motivation to training transfer. Most of the researchers and practitioners in training field have highlighted three magnificent factors influencing training transfer such as a) design of training : training programmes must be designed in such a manner, the trainees will be comfortable to learn the content, b) relevance and reinforcement: the newly learned knowledge, skill and attitude must be relevant to the work and reinforced positively; and c) motivation of the trainees to apply the new learning in the workplace (Polanco, 2013).

Tziner, Haccoun, & Kadish (1991) explored a positive correlation among personality of the trainee and training transfer. Following the theory of Locus of control (Rotter, 1966) they found that locus of control and training transfer are significantly connected. The rate of

transfer is more with individuals having internal locus of control than external locus of control. Motivation and transfer of training together supports to create a best possible learning atmosphere. If the trainees feel that the learning is important and can be applied in their life they will consider learning worthy, and will be motivated to obtain the new skill or knowledge. For effective transfer of training the trainees must be aware of the opportunities for transfer and must be motivated to utilize those opportunities (Prawat, 1989).

Perception of trainees about a suitable work atmosphere greatly influence their motivation to gain knowledge of and apply the newly learnt skill from the training programme (Noe & Schmitt, 1986). Transfer of training is greatly affected when trainees do not find a conducive work atmosphere and lack of support from their managers/supervisors the supervisors, work pressure (Baldwin & Ford, 1988; Broad & Newstrom, 1992; Cheek & Campbell, 1994). In addition, the trainee does not show any interest to apply the newly learnt skill when they found no opportunities to use the acquired learning from the training activities. Lack of performance feedback from the supervisor also restricts the transfer (Velada et al., 2007). Performance feedback helps the trainees know whether they are rightly applying the learnt skill. Furthermore, pressure from peer reduces transfer, particularly when peers have not undergone the similar training or they don't

give importance to the new skill (Marx, 1982). One more external factor is the incentives by organizations to encourage the transfer and how these incentives meet the expectations of the trainees (Facteau, Dobbins, Russell, Ladd, & Kudisch, 1995). Reward is also found to be a positive determinant of transfer of training. Among the plethora of barriers found in past studies, the most prevalent barrier to transfer of training is lack of reinforcement at the workplace (Broad & Newstrom, 1992; Cheek & Campbell, 1994). A supportive work atmosphere motivates the trainees to apply newly learnt skill where as an unsupportive work atmosphere prevents transfer of training (Rouiller & Goldstein, 1993).

Holton, Bates, Seyler, & Carvalho (1997) in their study on transfer climate at work place revealed that support from supervisor, rigidity to accept change, scope to utilize the newly learnt skill have impact training transfer. Perceived situational limitation in the workplace negatively affects pre-training motivation and ultimately training effectiveness (Mathieu et al. 1992).

According to Kozlowski & Salas (1997) opined that pre-training environment also affects transfer of training. The motivation level of the trainees to use the learned skill is low when the context does not support.

Soft Skill Training

Soft skills are the the inter and intra personal skills, necessary for self-development, socialisation, and achieving

excellence in workplace (Kechagias, 2011). Soft skills are usually referred as people skills and attributes which influence an individual's capability to be interactive with co-workers and customers. The skills considered as soft skills are communication, conflict resolution and problem solving. Coaching is also termed as a soft skill for supervisors. These skills help one stay employed, survive in a job, perform better on the job and have better interpersonal relationship

Soft skills are essential for getting success in professional life. These skills help the organisation function smoothly and increase the productivity. Nowadays Organizations expect that their employees must possess both soft skills and hard skills for serving better customer satisfaction. It has been argued that hard skills contribute to growth in organizations but down falls are because of lack of soft skills.

Major Gaps

On the basis of above study of literature, it has been found that though there are studies concerning training evaluation and its effect motivation to transfer training, there is dearth of studies with regards to soft skill training programmes (Charoensap-Kelly et al., 2016). In spite of the heavy importance evaluation of soft skill training are mostly ignored by the organizations. So there is a demand to study the impact of training evaluation on motivation to transfer in soft skill training programmes.

Table 2. Summarization of the Literature Review

Training Evaluation		
Contributors	Major Findings	Major Gaps Identified
Cascio (2014), Toole (2009), Brewer (2007), Santos & Stuart (2003), Spitzer & Conway (2002), Warr, Allan, & Birdi (1999), Phillips (1997), Lanigan (1997), Holton (1996), Kirkpatrick (1996), Holton III (1996), Warr & Bunce (1995), Thayer & Teachout (1995), Kaufman & Keller (1994), Easterby-Smith (1994), Baldwin & Ford, (1988), Noe & Schmitt, (1986), Clement (1982), Warr, Bird, & Rackham (1970).	<ul style="list-style-type: none"> • The four levels of Evaluation are reaction, learning, behaviour and result. • Importance of Evaluation is highlighted • Kaufman added 5th level concerning societal issue • Phillips added Return on Investment (ROI) • Phillip's model is similar to Kirkpatrick model. 	<ul style="list-style-type: none"> • Though on an average results show that Kirkpatrick model has been widely utilized but such evaluation did not show realistic results • Moreover organizations mostly used the first two levels but did not venture beyond that • Lack of awareness on training evaluation in training communities • Lack of budget for evaluation of training programme
Motivation to Transfer Training and Soft Skill Training		
Charoensap-Kelly et al., (2016), Polanco (2013), Bates, Kauffeld, & Holton (2007), Velada et al., (2007), Kozlowski & Salas (1997), Kirkpatrick (1996), Fecteau et al., (1995), Tziner, Haccoun, & Kadish (1991), Prawat (1989), Baldwin & Ford (1988), Noe & Schmitt (1986), Rotter (1966).	<ul style="list-style-type: none"> • The need of transfer of training studied • The factors such as trainees characteristics, training design and work environment given by Baldwin and Ford model mutually affects training transfer • Freedom of choice for attending the training programmes results better achievement scores • Positive correlation among personality of the trainee and training transfer exists • Motivation is very important for transfer of training • Perception of trainee about suitable work atmosphere affects the motivation to transfer • External factors such as incentive by the organization also affects motivation to transfer of training • Perceived situational limitation affects pertaining motivation and training effectiveness • Soft skills the important job-related skills that that has little or zero interaction with machines . • Soft skills are crucial for better performance, present and future leaders • In comparison to hard skills, soft skills contributes more in the success of an organization. 	<ul style="list-style-type: none"> • Training does not lead to change in behaviour always • It is very difficult to measure motivation to transfer training and actual transfer of training • The transfer of training is very low • Evaluating motivation to transfer of training is not a common practice and is overlooked in spite of many models and transfer problem still persists in organisations • Dearth of studies in measuring the transfer of soft skill training • In comparison to hard skill evaluating the effectiveness of soft skill training is very difficult • No simple models for evaluating the transfer of soft skill training programmes

Conclusion

From the above literature, it has been found that there are different factors which

impact motivation to transfer training in soft skill programmes. Those factors can be categorized as factors related to

characteristics of trainees and situational factors. The most important individual factors are self efficacy, work motivation, desire to learn, pre motivation to transfer, locus of control etc. The situational factors influencing motivation to transfer are support form organization, work culture, work atmosphere, rewards, managerial support, supervisory support, peer support etc. Evaluation of these factors will enhance motivation to transfer among the trainees.

References

- Akin ogundeji, O. (1991). Assuring the Quality of Training Through Evaluation/ : a Model. *Journal of Managerial Psychology*, 6(1), 3–11.
- Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, 41(1), 63.
- Bradley, L. (2011). *The Impact of Training on Employee Advancement*.
- Bramley, P. (1994). Evaluating Training against Business Criteria. *Journal of European Industrial Training*, 18(1), 10–14.
- Bramley, P. (2004). *Evaluating Training* (2nd ed.). London: CIPD, London. Retrieved from www.cipd.co.uk
- Brewer, T. K. (2007). Use of Phillips's five level training evaluation and ROI framework in the U.S. nonprofit sector. *University of North Texas*.
- Broad, M. L., & Newstrom, J. W. (1992). *Transfer of Training: Action-Packed Strategies To Ensure High Payoff from Training Investments*. ERIC.
- Cheek, G. D., & Campbell, C. (1994). Help them use what they learn. *Adult Learning*, 5(4), 27–28.
- Clement, R. W. (1982). Testing the hierarchy theory of training evaluation: An expanded role for trainee reactions. *Public Personnel Management*, 11(2), 176–184.
- Donald L. Kirkpatrick, J. D. K. (2009). *Evaluating Training Programs: The Four Levels*. Berrett-Koehler Publishers.
- Easterby-Smith, M. (1994). *Evaluating Management Development, Training and Education* (2nd ed.). Gower.
- Facteau, J. D., Dobbins, G. H., Russell, J. E. A., Ladd, R. T., & Kudisch, J. D. (1995). The influence of general perceptions of the training environment on pretraining motivation and perceived training transfer. *Journal of Management*, 21(1), 1–25.
- Griffin, R. (2012). Twenty-first century evaluation. *Training Journal*, (June), 50–53.
- Holton, E. F. I., Bates, R. A., Seyler, D. L., & Carvalho, M. B. (1997). Toward construct validation of a transfer climate instrument. *Human Resource Development Quarterly*, 8(2), 95–113. <https://doi.org/10.1002/hrdq.3920080203>
- Holton III, E. F. (1996). The flawed four-

- level evaluation model. *Human Resource Development Quarterly*, 7(1), 5–21. <https://doi.org/10.1002/hrdq.3920070103>
- Holton III, E. F., Bates, R. A., & Ruona, W. E. A. (2000). Development of a generalized learning transfer system inventory. *Human Resource Development Quarterly*, 11(4), 333.
- Kaufman, R., & Keller, J. M. (1994a). Levels of evaluation: beyond Kirkpatrick. *Human Resource Development Quarterly*, 5(4), 371–380.
- Kaufman, R., & Keller, J. M. (1994b). Levels of Evaluation: Beyond Kirkpatrick How Complete a Job Does Kirkpatrick's Evaluation Model Provide?, 5(4), 371–381. <https://doi.org/10.1002/hrdq.3920050408>
- Kechagias, K. (2011). Teaching and assessing soft skills. *MASS Project*, September.
- Kirkpatrick, D. (1979). Techniques for evaluating training programs. *Training and Development*, 50(6), 78–92.
- Kozlowski, S. W. J., & Salas, E. (1997). A multilevel organizational systems approach for the implementation and transfer of training. *Improving Training Effectiveness in Work Organizations*, 247, 287.
- Lanigan, M. L. (1997). Applying the theories of reasoned action and planned behavior to training evaluation levels. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 58(3–A), 778. <https://doi.org/10.1111/j.1464-0597.2007.00310.x>
- Marx, R. D. (1982). Relapse prevention for managerial training: A model for maintenance of behavior change. *Academy of Management Review*, 7(3), 433–441.
- Mathieu, J. E., Tannenbaum, S. I., & Salas, E. (1992). Influences of Individual and Situational Characteristics on Measures of Training Effectiveness. *Academy of Management Journal*, 35(4), 828. <https://doi.org/10.2307/256317>
- Noe, R. A., & Schmitt, N. (1986). The Influence of Trainee Attitudes on Training Effectiveness: Test of a Model. *Personnel Psychology*, 39(3), 497–523. <https://doi.org/10.1111/j.1744-6570.1986.tb00950.x>
- O'Toole, S. (2009). Kirkpatrick on evaluation: Not crazy after all these years. *Training and Development in Australia*, 36(4), 23–25.
- Peter H. Rossi, Mark W. Lipsey, H. E. F. (2004). *Evaluation: A systematic approach* (7th ed.). Thousand Oaks, CA: Sage.
- Phillips, J. J. (1996). Measuring ROI: The Fifth Level of Evaluation. *Technical & Skills Training*, (April), 10–13.
- Phillips, J. J., & Phillips, P. P. (1997). *Handbook of training evaluation and measurement methods* (4th ed.). Routledge Taylor & Francis Group.

- Polanco, N. R. De. (2013). *The Influence of Training Evaluations on the Training Transfer: An Experience in a Multinational Venezuelan-American Corporation. Using academic advising to increase motivation and engagement in first-year college students.* <https://doi.org/10.1177/001088048102200214>
- Prawat, R. S. (1989). Promoting access to knowledge, strategy, and disposition in students: A research synthesis. *Review of Educational Research*, 59(1), 1–41.
- R A. Swanson & E.Holton. (1999). *Results: How to assess performance, learning and perceptions in organizations.* San Francisco: Berrett-Koehler.
- R K Jain & R Agrawal. (2007). Indian and international perspectives on employee training practices:A trend report. *South Asian Journal of Management*, , 12(1), 79–100.
- Reid Bates, Kauffeld, S., & III, E. F. H. (2007). Examining the factor structure and predictive ability of the German-version of the Learning Transfer Systems Inventory. *Journal of European Industrial Training*, 31(3), 195–211.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1–34.
- Rouiller, J. Z., & Goldstein, I. L. (1993). The relationship between organizational transfer climate and positive transfer of training. *Human Resource Development Quarterly*, 4(4), 377–390. <https://doi.org/10.1002/hrdq.3920040408>
- Santos, A., & Stuart, M. (2003). Employee perceptions and their influence on training effectiveness. *Human Resource Management Journal*, 13(1), 27–45. <https://doi.org/10.1111/j.1748-8583.2003.tb00082.x>
- Scriven, M. (1999). The Nature of Evaluation Part II: Training. *Practical Assessment, Research and Evaluation*, 6(12), 1998–1999. Retrieved from <http://pareonline.net/getvn.asp?v=6&n=12>
- Spitzer, D., & Conway, M. (2002). *Link training to your Bottom Line* (Vol. 201). American Society for Training and Development.
- Thayer, P. W., & Teachout, M. S. (1995). *A Climate for Transfer Model*. DTIC Document.
- Tracey, J. B., Hinkin, Rt., Tannenbaum, S. I., & Mathieu, J. E. (2001). The influence of individual characteristics and the work environment on varying levels of training outcomes. *Human Resource Development Quarterly*, 12(1), 5–23.
- Tziner, A., Haccoun, R. R., & Kadish, A. (1991). Personal and situational characteristics influencing the effectiveness of transfer of training improvement strategies. *Journal of Occupational Psychology*, 64(2), 167–177. <https://doi.org/10.1111/j.2044-8325.1991.tb00551.x>

- Velada, R., Caetano, A., Michel, J. W. J. W., Lyons, B. D., & Kavanagh, M. J. (2007). The effects of training design, individual characteristics and work environment on transfer of training. *International Journal of Training and Development*, 11(4), 282–294. <https://doi.org/10.1111/j.1468-2419.2007.00286.x>
- Warr, P., Allan, C., & Birdi, K. (1999). Predicting three levels of training outcome. *Journal of Occupational & Organizational Psychology*, 72(3), 351–375.
- Warr, P., Bird, M., & Rackham, N. (1970). *Evaluation of management training: A practical framework, with cases, for evaluating training needs and results*. Gower Press.
- Warr, P., & Bunce, D. (1995). Trainee Characteristics and the Outcomes of Open Learning. *Personnel Psychology*, 48, 347–375.
- Wayne F Cascio, H. A. (2014). *Applied Psychology in Human Resource Management* (7th ed.). Pearson Education Ltd.
- Wexley, K. N., & Latham, G. P. (1991). *Developing and training human resources in organizations*. Harper Collins Publishers.

