A STUDY ON THE LEVEL OF TRAINING EVALUATION THAT TAKES PLACE IN ORGANIZATIONS

Romeo-Radu Damian, MSc, University of London – Birkbeck College

Abstract: In the modern world we live today, training is regarded to be one of the most important functions in organizations. Today's organizations are increasingly complex and diverse. This creates inherent conceptual complications within training models. Nowadays effort must be combined between trainers and experts operating various business units. Not only trainers, but managers, experienced workers, supervisors, consultants and others play an extremely important role in the implementation or trainings. Textbooks do provide plenty of studies which help to better understand the impact of workplace training programs. Very often practitioners tackle scientific theoretical stances by arguing that it is very difficult to prove something to be correct in practice. The scope and purpose of this paper is to determine in what way theoretical perspectives of training evaluation accurately reflect the mundane reality in today's organizations.

Keywords: training, evaluation, theory, practice, organizations.

1. **Training and Organizations**

Aristotle wrote about excellence as being 'an art won by training and habituation'. Queen Elizabeth II envisioned the perspective that 'it's all to do with the training: you can do a lot if you're properly trained'. Einstein promoted the idea that 'education is not the learning of facts, but the training of the mind to think'.

With all these great minds emphasizing the importance of training, it's no surprise that in the modern world we live today, training is regarded to be one of the most important functions in organizations. What makes training so valuable? Does it have some intrinsic purpose, promoted and reassured from generation to generation? Or is it his potency to shape behaviors and to satisfy stated objectives that is more important?

According to Goldstein & Ford (2002), training is 'defined as the systematic acquisition of skills, rules, concepts or attitudes that result in improved performance in another environment' (p. 1). Within an organizational framework, much attention has been given to performance and environments. Effective training is usually designed to produce changes through skills in the working environment. Researchers have suggested that participation in trainings can develop skill levels (Armstrong 1997), increase job performance (Latham & Wexley 1981) and inflate emotional feelings of self-worth (Mathieu et al 1993). Given all these positive outcomes, training researchers have put a lot of effort in trying to understand what are the methods and settings that maximize the reaction, learning, behavior and results of the trainees (Tannenbaum & Yukl 1992).

Today's organizations are increasingly complex and diverse. This creates inherent conceptual complications within training models. Nowadays effort must be combined between trainers and experts operating various business units. Not only trainers, but managers, experienced workers, supervisors, consultants and others play an extremely important role in the implementation or trainings. The focus of training research has been extended. Research has been done to determine in what measure personal characteristics influence training effectiveness (Campbell 1988; Tannenbaum & Yukl 1992), what is the relationship between training motivation and learning (Baldwin, Magjura & Loher 1991; Martocchio & Webster 1992), the influence of individual and situation characteristics upon

training (Noe 1986; Tandenbaum & Yukl 1992) or the link between career exploration and training motivation (Facteau et al 1995; Noe & Wilk 1993).

Relating to all the data available, scholars have defined the process of training as being systematic: 'systematic acquisition of skills, rules, concepts or attitudes' (Goldstein & Ford 2002), 'systematic develop of knowledge, skills and attitudes' (Armstrong 1997). The systematic approach to training describes a method by which people meet the requirements for their work by having the necessary knowledge, skills and attitudes. Within this approach, evaluation is usually listed last. The scope and purpose of this paper is to determine in what way theoretical perspectives of training evaluation accurately reflect the mundane reality in today's organizations. Is the level of training evaluation that takes place in organizations just another gap between what is suggested by training textbooks and what goes on in practice?

2. Training evaluation as suggested by textbooks

Goldstein & Ford have defined evaluation as an information-gathering technique: 'the systematic collection of descriptive and judgmental information necessary to make effective training decisions related to the selection, adoption, value and modification of various training activities' (p. 138). Other scholars, like Campbell (1988) discuss the real value that evaluation brings to better understanding the usefulness of training programs. His argument is that although the premise of trainings affecting productivity is unquestionable, it is still very difficult to know how resources should be allocated to increase the overall benefits of having trainings. Following this line of thought, Campbell concludes that training evaluation will not solve all problems, but can constitute an important step forward.

Many studies have operationalized learning and evaluation in terms of Kirkpatrick's (1976) model of training effectiveness. Kirkpatrick points out that reactions to training, learning, behavior change and results are linked in a causal manner. It is difficult to discuss any training evaluation methods without describing Kirkpatrick's system - 'by far the most influential and most used approach by training practitioners as well as being used by many researchers' (Goldstein & Ford 2002, p. 152).

The first level, the level of reaction, is designed to measure how well the trainees are responding to the training. The necessity of measuring reaction not only provides feedback as to how well the training was received by the audience but can act as a useful tool to understand future training provisions. Giangreco, Sebastiano and Peccei (2009) investigated the key factors that affect participant's satisfaction with training. He identified three: perceptions of the efficacy of training, perception of the usefulness of the training and perceptions of the trainer performance. Amongst all, the perceived usefulness of training was found to have the strongest positive effect on training satisfaction, an interesting discovery given that a lot of people may expect trainer performance to have the strongest influence on the audience.

At level two, or also called the learning level the need is to measure what the trainees have learned. This is an extremely important step suggested by Kirkpatrick because it directly relates to the accumulation of knowledge. Having the proper measuring techniques is also crucial for knowing the effectiveness of the training (Rogers, Fisk, Mead, Walker, Cabrera, 1996).

On the behavior level, or level three, it is important to realize how trainees apply the information. Observation and interview over time are required to observe the extent to which the trainees applied the learning and actually changed their behavior. Latham and Wexley (1981) constructed a framework made of behavioral rating items for a number of different jobs. This connects with how Kirkpatrick uses the term behavior in his study – in reference to the measurement of job performance.

The forth and final level of Kirkpatrick's model comes with analyzing the final results of the training. Measures would typically be business or organizational key performance indicators. It may even be possible that many of these measures are already in place via normal management systems and reporting. If not, measuring the final results of the training is likely to be the most costly and time consuming of all the levels.

Although Kirkpatrick's model is probably the best known, there is a clear lack of evidence to support causality between training, evaluation and results (Hook & Bunce 2001; Campion & Campion 1987). Characterized as a linear 'start-to-finish' framework, Kirkpatrick's model failed to produce a workable evaluation methodology (Kearns & Miller 1996). This opportunity has been exploited though: cyclical and integrated models started to emerge.

Cyclical models were a good step forward. Bramley's Improving Organizational Effectiveness (1996a), Kearns & Miller's KPMT model (1996) and the UK Industrial Society Carousel of Development, all had good designs and tackled important issues like: aspects of supervision, job design, identifying business needs, judging the value of training and learning to the organization so on and so forth. Nevertheless, the high cost and low availability of all the resources involved in the many stages of the evaluation process were two important barriers preventing the use of cyclical models at their full potential (Easterby-Smith, 1994; Newby 1992).

Unlike linear and cyclical models, integrated models were more contextually grounded. Holton's model for example tried to address motivation elements, environmental elements outcomes and ability elements (Sloman 1999). Becker et al's HR Alignment Model compared HR outcomes with training activities while Kaplan and Norton (1996) developed the Balanced Business Scorecard which emphasized the need to pay attention to four aspects: customer, financial, learning & growth and internal processes.

The discussion so far has made it pretty clear that training textbooks propose systematic and comprehensive evaluation methods. Whether they propose conducting evaluations based on Kirkpatrick's all four levels, conducting formative and summative evaluations or by using other models, textbooks do provide credible arguments regarding the usefulness of having designed proper evaluation methods. While the vast majority of scientific studies do help to better understand the impact of workplace training and evaluation programs, there are still challenges to be met and questions to be answered.

"The challenge for all the models available is how to bring together a comprehensive picture of the training or learning intervention and those being trained, a picture of the organization – its context and its approach to change and its relationship to those being trained – and a picture of the choice of training evaluation criteria and the context of their collection and analysis" (Blanchard & Thacker 2012, p. 113).

"In some ways it is clear that there will be no one solution. Different approaches will work in different contexts. But the overarching issue for evaluators is one of legitimacy: how can they persuade the various stakeholders who are now involved in the evaluation process of the legitimacy of these new methods?" (Conlin & Stirrat 2008, p. 204).

3. **Training evaluation that goes on in practice**

'If they knew what they were doing, it wouldn't be called research, would it?' some practitioners would honestly ask others, pointing to researchers. Very often practitioners tackle scientific theoretical stances by arguing that it is very difficult to prove something to be correct in practice.

To address the value and applicability of training evaluation that goes on in practice, a good starting point would be two surveys done in the year 1994, respectively 2000, by the

Industrial Society. The first survey (1996) showed that, out of 457 respondents, 56% were not able to identify what evaluation approach resembled with their organizations' needs. Also related to training evaluation, the second survey (2000), reported that out of 457 respondents, 44% "did not distinguish between knowledge, skills and attitudes when setting objectives for training events or did not know if their organization did". What is really worrying - other than numbers - is the fact that the people polled were personnel and training professionals. How can the learning objectives be met when they are not clearly distinguished from the very beginning?

Taking this idea a step further, Zenger et al (2005) estimated that about 85% of the resources allocated to training are dedicated to designing and delivering the training, while only 15% is divided between transfer and evaluation activities.

If so much effort has been invested into having a good training design and delivering the training information efficiently, it is of no surprise that trainers, in their evaluation of training interventions, would consider the reaction level (satisfaction) to be sufficient and stop with their evaluation methods. Balaguer et al (2006) enforced the hypotheses that there is a widespread neglect of measuring activities in firms. Practitioners have mostly focused on the first level of Kirkpatrick's model (Lee & Pershing 2002; Van Buren & Erskine 2002). What can a trainer legitimately learn from reaction and happy sheets? They can provide valuable information in regards to the perceived usefulness of training (Gianfranco et al. 2009). Nevertheless, reaction and happy sheets seem to have a stronger effect on satisfaction (Gianfranco et al. 2009), falling very short on a complete evaluation of the desired results of training.

A complete training evaluation should not ignore variables that contribute to the learning outcomes. For this reason, academics have emphasized the importance of moving the evaluation beyond level one to higher levels of Kirkpatrick's model (Carnevale, Gainer and Villet 1990; Lee & Pershing 2002). Rivera & Paradise (2006) identified that only 38% of organizations - recognized for their efficient training practices - were assessing behavioral and results outcomes.

It is a well-known fact that learning processes deliver value to the organization. CIPD (2006b) has come up with data showing that "80% of HRD professionals believe that training and development delivers more value to their organization than they are able to demonstrate" (p. 3). In practice though, measuring value will be a hard thing to do. Who defines value after all? Will the receivers of learning and training define value? What about trainers? Or maybe the stakeholders should take the responsibility on behalf of the group? From a practitioner's perspective, there is an urgent need for *someone* to define the value of learning to their organization. Some practitioners (Kearns, 2005) even suggested a calculation to determine the economic return of investment for individual training and learning processes. Although it's a great idea, due to time and money constraints, hardly any real progress has been recorded so far. Usually organizations prefer a 'one-size-fits-all' approach, which is inappropriate by its very nature (as suggested by CIPD).

Altogether may leave us to the following conclusion, articulated by Hutchins and Burke (2007): "training practitioners may be focusing on the 'micro' issues of evaluating specific training interventions versus outcomes associated with departmental and organizational-level impacts as noted in more contemporary models of transfer and training effectiveness" (p. 258). As long as practitioners do not use a simple, easy-to-administer tool for measuring training evaluation it would be hard to see any significant overlap between what is suggested by training textbooks and what goes on in practice.

4. The gap between theory and practice

While researchers suggest that criterions must be carefully evaluated to have a positive impact on training programs, practitioners often do not have enough time for a thorough analysis. Organizations are subject to continuous evaluation processes so organizational lifespan may be short. The field of vision in organizations may not stretch further than the quarterly communication. Time is a very important aspect on this matter.

Money constraints are another issue. While it is obvious that trainings cost money, training evaluations may cost even more, a luxury that most of organizations can't afford. Grove & Ostroff (1991) embraced the view that training evaluation can be a risky and expensive enterprise. Risk is associated with the sense of 'fear that an evaluation will indicate that a publicly endorsed program is not meeting its objectives' (Goldstein & Ford, p. 139). As for the money component, 'traditional classroom and simulation instructional methods are often relatively expensive for many multinational companies' (Goldstein & Ford, p. 249). Thus, the compromise suggested by academic literature is to be found in the purpose of training programs. The purpose should not be to declare programs as good or bad, but to gain as much knowledge as possible from the program. Although a noble purpose, it doesn't work out well for most managers. Managers look at stats and figures to measure efficiency. Knowledge is operationalized in organizations into hard numbers, which are afterwards sliced and diced by an individual or a group of people in the hierarchy. Without having a binary approach to rely on – the good or bad of the program – it will be very hard for knowledge management specialists to draw some conclusions and make tacit knowledge explicit.

Pintrich, Cross, Kozma, and McKeachie (1986) wrote that 'whereas early instructional psychology dealt primarily with instructional designs involving matters of manipulating presentation and pacing of instructional material, it has become clear that learners seek to learn; they transform what they receive from instruction and create and construct knowledge in their own minds' (p. 613). Constructing a knowledge management framework to operationalize experiential knowledge? This could be a solution but hard to implement given that top management may prefer to view training as an act of faith (Grove & Ostroff 1990).

The gap between theory and practice has very much to do with the answer to the following question: do stakeholders really want in depth reports on training evaluation? Mooney and Brinkerhoff (2008) argue that '*it*'s not about how good the training was; it's all about how well the organization (and the individual) uses the training'. For this reason, a greater emphasis should be placed on how learning is evaluated and what kind of re-enforcement strategies are required for this to happen.

Perhaps to truly demonstrate the full credibility of training, as Sparrow and Kent (2005) stated '*the argument needs to shift away from measuring to prove something, to measuring to learn how to maximize the impact of training*'. The problem is that measuring impact is also a political process. The political nature and sensitivities of training may actually be an under-recognized or under-estimated factor to training and how it is being evaluated – questions arise on the reasons why people are being trained i.e. for retention / reward / remedial action or to raise performance / skill or knowledge?

The power of trainings comes not from the sheer number of participants or the uniformity of their efforts, but through a mutually reinforcing plan of action. Each one's efforts should fit into an overarching plan to overcome the gap between theory and practice and for their combined efforts to succeed. The multiple causes of training evaluation problems that take place in organizations, and the components to their solutions, are interdependent. Initiatives that have an impact on organizations depend on a diverse group of people working together, having the organization encourage each and every one of them to excel in a way that support the organizational objectives.

Although there is a gap between theory and practice, the gap can be bridged. First, by having a shared vision for change, a vision that includes a common understanding of the training needs. Each organization might have different definitions of what the needs are. Afterwards, organizations need consistency. Implementing and evaluating a successful training program requires people with a very specific set of skills to serve as the backbone for the entire initiative. Next, for any evaluation to have an impact, it requires a significant financial and time investment. The increasing focus on financial metrics in measuring business success suggests that training evaluation will develop a greater focus on return on investment to justify the costs incurred and demonstrate contributions to business performance. Nonetheless, the investment can be highly leveraged. If successful, it will enable organizations not only to solve their immediate business related problems, but also act as role models and thus make other organizations to act in concert.

I have argued that while textbooks do provide plenty of studies which help to better understand the impact of workplace training programs, very often practitioners tackle scientific theoretical stances by arguing that it is very difficult to prove something to be correct in practice. It is well too easy to concentrate on the design and marketing of training while ignoring evaluation processes. Evaluation addresses both learning and the quality of training. Determining the level of training evaluation that takes place in organizations, may therefore be a desirable result of both - what is suggested by training textbooks and what actually goes on in practice.

REFERENCES

Armstrong, M. (1997). A Handbook of Personnel Management Practice, reproduced in Personnel in Practice. Currie, Donald: Blackwell Business.

Baldwin, T. T., Magiuka, R. J., & Loher, B. T. (1991). The perils of participation: Effects of choice of training on training motivation and learning. *Personnel Psychology*, 44, 51-65.

Becker, B. E., Huselid, M. A. & Ulrich, D. (2001). *The HR scorecard: Linking people, strategy and performance,* Boston, Harvard Business School Press.

Blanchard, P. N., and Thacker, J.W. (2012). *Effective Training: Systems, Strategies and Practices (5th Edition, International Edition)*. London: Prentice-Hall.

Bramley, P. (1996). Evaluating training effectiveness. Maidenhead: McGraw-Hill.

Campbell, J. P. (1988). Training design for performance improvement. In J. P.

Campbell & R. J. Campbell (Eds), *Productivity in organizations* (pp. 177-215). San Francisco, CA: Jossey-Bass.

Campion, M. A. & Campion, J. E. (1987). Evaluation of an interview skills training program in a natural field setting. *Personnel Psychology*, 40, 675-691.

Carnevale, A. P., Gainer, L. J., and Villet, J. (1990), *Training in America: the Organization and Strategic Role of Training*, San Francisco, CA: Jossey-Bass.

Conlin, S., & Stirrat, R. (2008). *Current Challanges in Development Evaluation*, Los Angeles: Sage Publications.

Easterby-Smith, M. (1994) *Evaluating Management Development, Training and Education*. Aldershot: 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, 1-25.

Giangreco, A., Sebastiano, A. & Peccei, R. (2009). Trainee's reactions to training: an analysis of the factors affecting overall satisfaction with training, *International Journal of Human Resource Management*, 20 (1) p. 96 - 111.

Goldstein, I. L., Ford, J. K. (2002). *Training in Organizations: Needs Assessment, Development and Evaluation (4th Edition.)*. Belmont: Wadsworth.

Grove, D. A., & Ostroff, C. (1991). Program evaluation. In K. Wexley & J. Hinrichs (Eds.), *Developing human resources*. Washington, DC: BNA Books.

Hook, K., & Bunce, D. (2001). Immediate learning in organizational computer training as a function of training intervention affective reaction, and session impact measures. *Applied Psychology: An International Review*, 50, 436-454.

Hutchins, H. M. and Burke, L. (2007). Identifying trainers' knowledge of training transfer research findings – closing the gap between research and practice, *International Journal of Training and Development*, 11:4, p. 236-264.

Kaplan, R. S., & D.P. Norton (1996a). *The Balanced Scorecard: Translating Strategy into Action*, Boston: HBS Press.

Kearns, P. (2005). *Evaluating the ROI from learning: how to develop value-based training*. London: Chartered Institute of Personnel and Development.

Kearns, P. and T. Miller (1997). *Measuring the impact of training and development on the bottom line*. FT Management Briefings. Pitman Publishing, London, in Tamkin, P.,J. Yarnall and M. Kerrin (2002). *Kirkpatrick and Beyond: A Review of Models of Training Evaluation*. Brighton, The Institute for Employment Studies.

Latham, G. P., & Wexley, K. N. (1981). *Increasing productivity through performance appraisal*. Reading, MA: Addison-Wesley.

Lee, S. H., and Pershing, J. A. (2002). Dimensions and design criteria for developing training reactions evaluations, *Human Resources Development International*, 5, 2, 175-197.

Martocchio, J. J., & Webster, J. (1992). Effects of feedback and cognitive playfulness on performance in microcomputer training. *Personnel Psychology*, 45, 553-578.

Mathieu, J. E., Martineau, J. W., & Tannenbaum, S. I. (1993). Individual and situational influences on the development of self efficacy: Implications for training effectiveness. *Personnel Psychology*, 46, 125-147.

Mooney, T. & Brinkerhoff, R. (2008). *Courageous Training: Bold Actions for Business Results*, Exeter, Berrett-Koehler Pub.

Newby, A. 1992. Training Evaluation Handbook. Alder-shot, England: Gower.

Noe, R. A. (1986). Trainee attributes and attitudes: Neglected influences on training effectiveness. *Academy of Management Review*, 11, 736-749.

Noe, R. A., & Wilk, S. L. (1993). Investigation of the factors that influence employees' participation in development activities. *Journal of Applied Psychology*, 78, 291-302.

Pintrich, P. R., Cross, D. R., Kozma, R. B., & McKeachie, W. J. (1986). Instructional psychology. *Annual Review of Psychology*, 37, 611-651.

Rivera, R. J. and Paradise, A. (2006). *State of the Industry in Leading Enterprises*, Alexandria, VA: ASTD Press.

Rogers, W., Maurer, T., Salas, E., & Fisk, A. (1997). Task analysis and cognitive theory: Controlled and automatic processing task analytic methodology. In J. K. Ford &

Associates (Eds.), *Improving training effectiveness in work organizations*. Mahwah, NJ: LEA. Sloman, M. (1999). A handbook for training strategy. 2nd ed. Aldershot, U.K.:

Gower.

Tannenbaum, S. I., & Yukl, G. (1992), Training and development in work organizations. *Annual Review of Psychology*, 43, 339-441.

Van Buren, M. E. and Erskine, W. (2002). *The 2002 ASTD State of the Industry Report*, Alexandria, VA: American Society of Training and Development.

Zenger, J., Folkman, J. and Sherwin, R. (2005). The promise of phase 3. *Training and Development*, January, 30-34.