

Strategies to Develop Skills for Positive Training Transfer

Jane Northup

Abstract

Baldwin and Ford's (1988) Model of the Transfer Process highlights training input and output factors as affecting conditions of training. Training inputs, such as trainee characteristics (personality and motivation), training design (principles of learning and training content), and work environment (support and opportunity to use skill) effect training outputs (learning and retention). Using adult learning principles in the classroom helps facilitate positive transfer of training and includes learning that takes place in the context of realistic settings, called authentic tasks (Brown, Collins, & Duguid, 1989). Additionally, an instructor/trainer of adults must understand that the adult learner is self-directed, has experiences to share, needs motivation to learn, and has the need for problem-centered learning for learning and retention to take place (Knowles, Holton III, & Swanson, 2005). Therefore, when the trainer understands what helps to motivate the adult learner, this enables the trainer to help students make meaning from what is learned, transfer their knowledge, and gain control from the instructor (Knowles et al., 2005). The purpose of this review is to take a closer look at examples of training inputs that maximize the transfer of training for positive learning and retention.

Keywords: Training Inputs, Training Outputs, Learning, Retention, Adult Learner

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The law enforcement profession has seen many technological advancements in the last 100 years. Many are taken for granted, such as electronic tickets, video surveillance, and the simple advent of the latex glove. However, a persistent challenge for the field of law enforcement is keeping up with ever-changing technology and science (Byrne & Marx, 2011; Schiro, 2000). For example, modern technology has significantly impacted how law enforcement officers (LEOs), who are crime scene investigators, collect, document, and analyze evidence. Therefore, the need for additional training in law enforcement has increased with the advancement of technologies (Kerr, 2005). Koper, Taylor, and Kabu (2009), on behalf of the Police Executive Research Forum, conducted a study on the effectiveness of technology, the prioritization of technologies, and the barriers the law enforcement community faces when implementing advanced technologies. Law enforcement agencies spend millions of dollars each year training officers. However, there has been little research on the training programs and their effectiveness for positive transfer of training to on-the-job performance (Community Oriented Policing Services, 2014; Williams, Ward, Knowles, & Smeeton, 2002).

Studies suggest there are several elements in a training program that will enhance learning and retention and lead to improved skill development (Baldwin & Ford, 1988; Klausmeier, 1985). Baldwin and Ford (1988) created a training transfer model (see Figure 1), that identifies training inputs as (1) trainee characteristics (ability, motivation), (2) training design (realistic training environments, using adult learning principles), and (3) work environment (such as transfer climate and support) which assist in positive training outputs. Training outputs (learning and retention) are affected by the conditions of transfer which affect how a trainee's skills are

ultimately transferred to the job. In their work, Baldwin and Ford (1988) found that the conditions of transfer (1) generalization (how close the training context is to the real world of practice) and (2) maintenance (the timing of the training and its use in practice) are intricately linked to trainee characteristics and the work environment for positive training outcomes. Given the significance of training inputs in formal training programs for positive training outputs (learning and retention), it is imperative that training inputs utilize best practices in adult learning theory. The purpose of this review is to take a closer look at training inputs and what can be done for positive learning and retention.

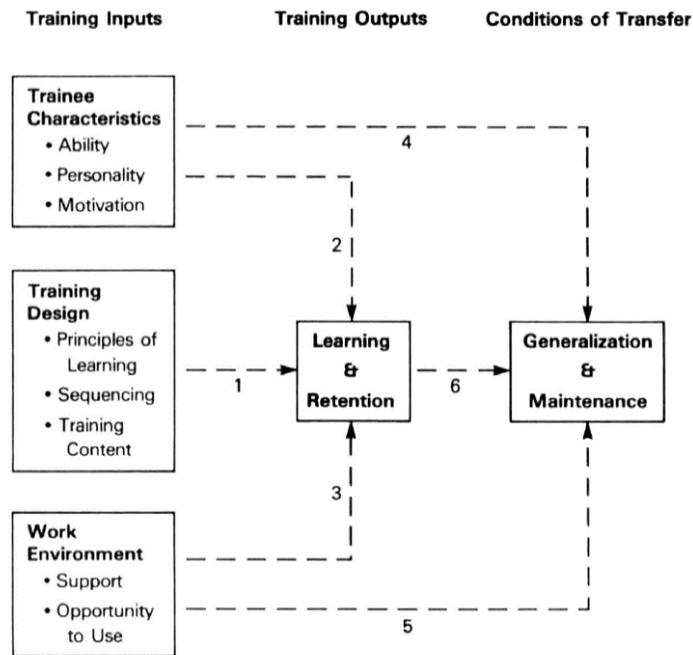


Figure 1. Training Transfer Model (Baldwin & Ford, 1988)

Trainee Characteristics

Trainee characteristics include the trainee’s intellectual ability, self-efficacy regarding their training, motivation level, and personality traits (Burke & Hutchins, 2007). Trainee intellectual ability may be the most influential predictor of training success and performance; it accounts for 16% of the variance in training effectiveness (Kanfer & Ackerman, 1989; Ree & Earles, 1991; Robertson & Downs, 1979) though research has found trainee motivation is also influential in learned skills transferring to the work environment (Noe, 1986; Tziner, Haccoun, & Kadish, 1991). Organizations may not be able to change the intellectual abilities of their trainees, but some variables within trainee characteristics can be modified. For example, in their research, Lim and Morris (2006) added job function, job position, years of related job experience, and immediate training needs to the list of trainee characteristics. They found that a trainee’s job function was a significant indication of their overall perceived learning application (Lim & Morris, 2006). For example, different positions held within an organization will affect the trainees’ perceived ability to apply their learning to the workplace.

This is supported by Baldwin and Ford's (1988) statement that "training research cannot continue to ignore the job relevance of the training content as a critical factor affecting what is learned, retained, and transferred to the work setting" (p. 99). Lim and Morris (2006) reported the most influential trainee characteristic in their study was the need for trainees to use the learned knowledge within six months of training. For example, if an employee's job function does not allow them to use their newly acquired skills, transfer will be limited or may not occur at all. Knowles et al. (2005) found that adult learners need to connect learning to their existing knowledge and experience base. Therefore, an employee with limited work experience may not have the same conditions for positive transfer as a trainee with more experience in the skill being learned.

Training Design

Including stakeholders (the trainee, trainer, and manager) in training design, one that aligns with organizational goals, will help identify obstacles to positive transfer (Broad & Newstrom, 1992). Also, for effective positive transfer, the training design should include achievable learning goals, the use of relevant content, a program that gives practice and feedback, the use of over-learning as a strategy for retention (continuing to repeat practice even when performance has been established), and a design that includes active learning with behavioral modeling (Burke & Hutchins, 2007). Knowles et al. (2005) suggested that for adult learners to develop, learn, and retain their skill, training should be focused on their needs. Knowles et al. identified six assumptions about adult learners. Adults learn best when they need to know the material, have self-concept, have prior experience, exhibit a readiness to learn, are oriented to learn, and are motivated to learn (Knowles et al., 2005). Adult learners will be more successful in their learning if they see a direct correlation between what they are asked to learn and their job performance.

Knowles's work adds to Morstain and Smart's (1974) study on six motivational factors for adult learners. Morstain and Smart found motivational factors that influence how adults transfer training. They are (1) the need for social networks to exist, (2) the need to meet external expectations, (3) the need to improve the social welfare of others, (4) the benefits of career and professional advancement, (5) feeling stimulated with learning, and (6) having a cognitive interest throughout pre-, during, and post-training for positive transfer (Morstain & Smart, 1974). Therefore, a trainer must make connections so that training is aligned with what the trainee will be doing in the "real world" for a positive influence on training effectiveness (Broad & Newstrom, 1992).

Near and Far Transfer

Transfer of training can be near or far. Near transfer is when learning is applied to situations similar to those in which initial learning has taken place, and far transfer is when learning is applied to situations dissimilar to those of the original learning (Lim & Johnson, 2002). For example, the more the training content and programs reflect workplace practices, when learning takes place in realistic settings with authentic tasks and over-learning the task is used, near transfer will occur (Baldwin & Ford, 1988; Brown et al., 1989; Noe, 1986). Far transfer occurs when trainees practice in different contexts that include unique practice exercises, and they receive encouragement during training which stresses the application of what they are learning in situations they are familiar with (Baldwin & Ford, 1988; Noe, 1986).

Work Environment

As stated earlier, adult learners need early opportunities to apply what they have learned for training outputs (learning and retention) to be positive. Burke and Hutchins (2008) reported supervisory support that provides coaching and opportunities to practice new knowledge and skills as best practice in training transfer. Linking training design and delivery with the work environment, Burke and Hutchins (2007) found that a precursor to training is a needs assessment. Trainers should first assess the cause of performance issues to ensure that the work environment does not preclude learning and retention from unclear performance objectives and inadequate resources and support (Burke & Hutchins, 2007).

Additionally, peer and supervisory support were found to boost training transfer once the trainee is back on the job (Burke & Hutchins, 2008; Fecteau, Dobbins, Russell, Ladd, & Kudisch, 1995). Burke and Hutchins's (2008) research with trainers found supervisory support as an essential function of transfer. Supervisory support includes supervisory reinforcement, coaching and opportunities to practice, the use of interactive activities to encourage participation, post-training evaluation of skills, and making content relevant to actual job duties. Broad and Newstrom (1992) included management support and prior- and post-training as enhancements to transfer of training. As far as the role of supervisors is concerned, research has found that few supervisors discuss training programs with the trainees other than to authorize time to attend the courses, which leads to a lack of understanding by the trainee in how to implement training in the workplace (Clarke, 2002). Therefore, when the trainee, trainer, and manager—what Broad and Newstrom (1992) called a transfer partnership—are all involved in the training design and delivery, they can each support one another for positive application of training by the trainee to the workplace.

Conclusions

Building on Broad and Newstrom's work, Lim and Morris (2006) conducted research that integrates all three training inputs. Their resulting model (see Figure 2) shows a relationship between the different types of variables: trainee characteristics, instructional factors, and organizational factors and how they relate to one another for positive learning and transfer outcomes.

Trainers must understand that the entire training and performance improvement process should be comprehensive and focused on how to help trainees transfer their learning to the job (Baldwin, Ford, & Blume, 2009). Trainer knowledge (expertise in their fields) and their use of teaching principles (adult learning principles) have also been reported as assisting in positive learning and retention (Burke & Hutchins, 2008). Burke and Hutchins's (2008) review of existing research found that other major transfer influences go beyond the traditional training inputs. These researchers reported sub-categories that emerged as influences beyond Baldwin and Ford's traditional training inputs that help support transfer. They include trainer knowledge (the trainer's knowledge of subject matter and teaching principles), peer support (co-workers, colleagues, and peers as the most heavily invested), and organizational support (organizational culture supports transfer through a commitment to training transfer). As an example, they found that support from peers more consistently influenced trainee transfer than supervisory support;

this was supported by Facticeau et al. (1995) who found that trainees’ support from peers had a more significant positive effect in transfer that supervisory support (Burke & Hutchins, 2008).

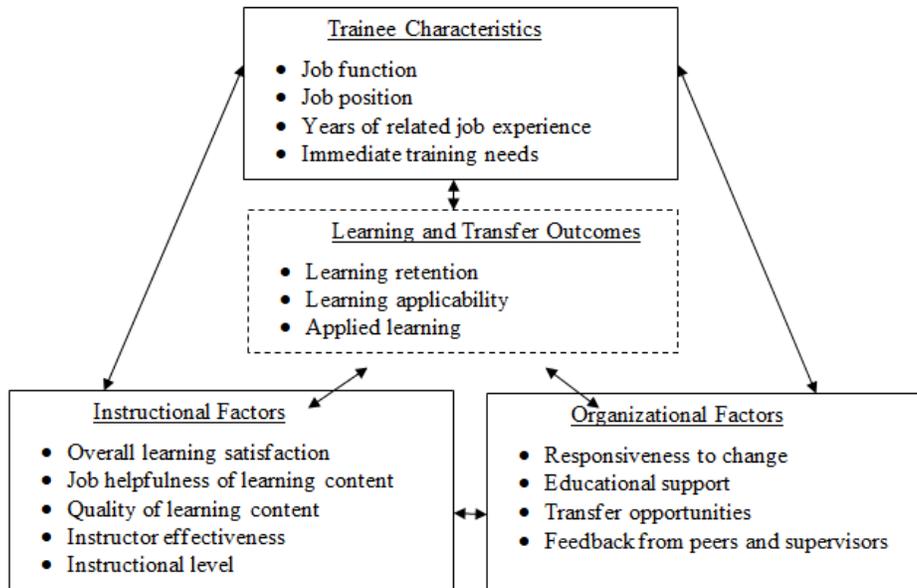


Figure 2. Integrated Research Framework (Lim and Morris, 2006)

Mentorship, as part of training inputs, has been found to improve on-the-job performance. Studies with pre-service teachers found mentoring activities between a trainer and trainee that include scaffolding, feedback, and reflection, help trainees develop their skill to higher levels (Silva Mangiante & Peno, 2016). Scaffolding is used to help a learner reach a higher level of performance through modeling and observation (Peno & Silva Mangiante, 2012). Providing feedback to the trainee allows for acknowledgment of strengths and weakness relative to their performance (Baldwin & Ford, 1988) and provides an opportunity for them to examine their actions and consider alternatives, with the assistance of a mentor (Peno & Silva Mangiante, 2012).

Training designs that incorporate Morstain and Smart’s (1974) six motivational factors for adult learners may expect positive training transfer. Trainers who understand Knowles et al.’s (2005) six assumptions of the adult learner and include activities such as mentorship and the use of the motivational factors will help propel the learner from one who is learning to one who retains learning. Moreover, a work environment that includes supervisory and peer support, transfer partnerships between the trainee, trainer, and manager, and the opportunity for the trainee to use their skills are all critical to enhancing transfer of training. Therefore, trainees that are motivated to learn, a training design that accommodates trainees’ needs and helps make connections with “real world” activities, and a work environment that enables the learner to use new skills promptly are essential training inputs for positive learning and retention.

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Jane B. Northup is a doctoral student in Education at The University of Rhode Island/Rhode Island College. She works as the Quality Assurance Officer at the Rhode Island State Crime Laboratory and co-coordinates the two-semester Biomedical & Pharmaceutical Sciences 101/102 course in Criminal Investigation for law enforcement officers. Her area of expertise is skill development in the adult learner.