A process approach to the transfer of training
Part 1: The impact of motivation and supervisor support on transfer maintenance

Marguerite Foxon
Florida State University

The on the job application of skills and knowledge learned in training, referred to as transfer of training, is the subject of increasing interest by management, performance technologists, and trainers. As training budgets increase, questions are being asked about the return on this investment, and practitioners are searching for strategies to increase the likelihood of transfer of training. In this article transfer is conceptualised in terms of a five stage process (ranging from initiation to unconscious maintenance) rather than as an outcome or product of training. Two factors which are commonly cited as inhibiting the transfer process - low motivation, and an unfavourable perception of supervisor support - are discussed. A model of transfer, based on force field analysis, which considers the process of transfer in terms of inhibiting and supporting factors is proposed. Potential strategies to support greater transfer are introduced, and will be explored in detail in the second part of this article [Foxon, 1994].

Training and corporate education has become a multi-billion dollar industry. Despite the current recession, business is continuing to invest heavily in training its people. In the USA, nearly 41 million corporate employees were predicted to receive training during the 1992/93 year. The total dollars budgeted for this formal training in organisations with 100 or more employees was estimated at $45 billion, an increase of 4% on the previous year’s figure. If the budget estimates for outside training expenditures (such as packaged training programs, seminars, and the like) are included, this figure increases to more than $53 billion (Industry Report, 1992). This pattern of investment can be observed in many other industrialised countries. Since 1990, for example, Australian organisations
with a gross national payroll of $200,000 or more have been required to spend 1% of that payroll figure on Government approved training (Training Guarantee Act, 1989), and similar legislation has been passed in Singapore. In the United States, the Clinton administration has also raised the possibility of a ‘training tax’.

Despite this expenditure on training, unsettling questions continue to be raised about the return on investment. There is little evidence in the research or anecdotal training literature that training programs transfer to the job and result in changed behaviours in the workplace (Baldwin & Ford, 1988; Gist, Bavetta & Stevens, 1990). This is particularly the case with training in conceptual, judgmental and cognitive skill areas, such as problem solving, management development, and interpersonal skills training where trainers admit they have no firm proof that the training impacts the way employees do their jobs. There is a better track record with training in procedures and motor skills - in these domains the only way the job can be performed, in many cases, is to use the skills and knowledge from the training, and failure to apply the training results in an observable failure to perform (Gradous, 1991). Much corporate training however is in the problem solving domain, and use of the new skills on the job (e.g. techniques for better staff management) may not always be critical to maintaining an acceptable level of performance.

**Defining Transfer**

What is ‘transfer’? Swinney (1989) calls it “that almost magical link between classroom performance and something which is supposed to happen in the real world”. In this article, transfer is defined as the effective and continuing application in the job environment of the skills and knowledge gained in a training context (Baldwin & Ford, 1988). When there is evidence of changed work behaviour as a result of training interventions we say that training has transferred.

Attempting to define transfer in terms of the post-course application of the training is problematic however, and raises many questions. For example, what constitutes the moment of transfer? Indeed, is there such a point in time? Or is there a time continuum for transfer? Are there degrees of transfer? For instance, do attempts to apply the training constitute transfer, or must the training be fully integrated into an individual's work patterns before one can say transfer has occurred? Are there ‘types’ of transfer? For example, is the on-the-job replication of a procedure learned in training the same type of transfer as the generalisation of a skill to a novel situation? Both are commonly referred to as transfer, yet generalisation requires very different cognitive processes and possibly a greater degree of personal commitment by the learner. It is much more difficult to achieve transfer in terms of generalisation than replication. There are no clear answers to these questions in the literature.
How do practitioners gauge whether or not transfer has taken place? Some consider transfer has occurred if post training levels of performance are comparable to or greater than those attainable by on-the-job training (Cormier, 1984). Others look for proof of transfer not so much in what the learners are doing back on the job, but at the original performance problem prompting the training. If that has been positively impacted, transfer is said to have occurred (Broad, 1982). Most often, trainers concerned about transfer look for indications that what learners are doing on the job is a reflection of the skills and knowledge taught in training and that the related job performance has changed in a positive manner as a result of the training.

In taking this perspective, practitioners are viewing transfer as a training product or outcome - either it has occurred or it has not. This also assumes that such an outcome can be identified and measured. Yet current practice suggests this is extremely difficult in most cases other than procedural or motor skills training. In the case of intellectual skills, there is no clarity on how transfer can be identified, since the degree and time of application of such skills will vary from person to person. For reasons such as these, practitioners have found it difficult to determine whether transfer has occurred.

As an alternative to the transfer-as-product approach, transfer is better conceptualised as a process with various stages through which transfer can be tracked. The transfer process is illustrated in Figure 1.

The process approach reflects what actually happens as learners try out some of the skills, practise them, discontinue their use, or fail to use the skills. The process approach also enables practitioners to measure transfer at various points on the transfer time continuum, and the degree of transfer at those points. There is an acceptable degree of transfer, and an optimal degree.

Each stage is a prerequisite for the following one, and until the final stage is reached the learner may revert to the pre-training behaviour resulting in transfer failure. The risk of transfer failure is greatest in the early stages. The stages of the transfer process are as follows:

• **Transfer intention.** This is the end-of-course motivation of the learner to apply aspects of the learning in the work environment (Huczynski & Lewis, 1980; Noe, 1986). If learners leave the training with a low level of transfer intention it is unlikely that they will demonstrate a high degree of transfer on the job some months later. Comparatively little research has been done on measuring end-of-course transfer intention and its effect on the transfer process.
• **Transfer initiation.** Initiation refers to the attempts to apply any aspect of the learning in the work environment (Laker, 1990), and is a necessary precursor to partial transfer and transfer maintenance. Attempts to utilise the training may be discontinued for a variety of reasons, both personal and organisational.

• **Partial transfer.** This occurs when only some skills are transferred (and others are not for such reasons as lack of opportunity, lack of confidence, failure to master the skill in training, low motivation, etc). Partial transfer also results when some or all of the skills are being used from time to time. While there is evidence that to some degree the learner is using the training on the job, transfer is sporadic and inconsistent. It is possible that partial transfer is the norm, although no research has specifically addressed this.
• **Transfer maintenance.** This represents the final two stages of the transfer process and refers to maintaining the application of the learning to the job over a period of time, so that job performance is permanently enhanced (Baldwin & Ford, 1988; Georgenson, 1982). In the first stage of maintenance the learner makes a conscious choice to use the skills whenever their use is appropriate. When the utilisation of the skills has progressed to unconscious use, the skills have been integrated into job behaviour, and transfer has occurred in full. While it is not possible to identify the time when transfer initiation becomes transfer maintenance, optimal maintenance has been reached when there is no permanent relapse to previously-learned patterns of behaviour by the learner, the new skills and knowledge are no longer sporadically employed but have become integrated into the learner’s repertoire of work behaviours, and the application of the ‘new’ skills is no longer consciously undertaken. When the final stage of transfer maintenance has been reached, there may also be evidence that the skills have been generalised to other areas of performance.

• **Transfer failure.** Despite application attempts (transfer initiation) or sporadic skill application (partial transfer), the learner may fail to integrate the training into her or his repertoire of work behaviours, and eventually cease attempts to use the new knowledge and skills. When transfer maintenance or partial transfer is not achieved, transfer has failed.

**Factors Inhibiting Transfer**

Performance technologists and trainers are obviously reluctant to estimate transfer failure rates, but they are equally unable to estimate with any degree of certainty what percentage of training actually transfers. Many believe it is extremely low and that much of it is extinguished over time (Broad & Newstrom, 1992; Georges, 1988; Grabowski, 1983; Kelly, 1982). Based on his research Marx (1986) concluded that transfer failure may be as high as 90% for some training courses. From surveys of American, British and Indian managers who had attended management education programs, Baumgartel, Reynolds, and Pathan (1984) reported that no more than 50% reported any significant attempt to transfer the training to the job environment. In a study by Huczynski and Lewis (1980) only 35% of the trainees attempted to apply the learning on the job. It was thought that the number who actually integrated the learning into their every day work behaviour was a much smaller percentage. In other words, the degree of transfer maintenance was considerably lower than that of transfer initiation which itself was discouragingly low.
Practitioners have sought to explain this low level of transfer in terms of inhibiting factors. These factors can significantly inhibit transfer intention and transfer initiation, as well as impact the degree of transfer that eventually occurs. There are many articles in the training literature, based on the experience and insights of practitioners, citing factors believed to inhibit transfer. The author conducted a content analysis of the more than 30 such articles and identified 128 inhibiting factors which can be grouped into four major categories - organisational climate factors, training design factors, individual learner characteristics, and training delivery factors.

- **Organisational climate factors:** The negative effect of an unsupportive organisational climate on the transfer process accounts for 42% of the identified inhibiting factors. The failure of supervisors (and, to a lesser degree, the co-workers) to encourage and reinforce application of the training on-the-job is the most commonly cited factor inhibiting transfer. Other factors repeatedly mentioned include the organisational demands and pressures that inhibit application, the lack of opportunity to apply the learning, and the failure to provide the resources or technology necessary for application.

- **Training design factors:** This category accounts for 22% of the inhibiting factors, and refers to course content which is too theoretical or not practical enough, that is perceived to be in conflict with the values of the organisation, or which is presented out of sync with on-the-job requirements.

- **Individual learner characteristics:** Learner characteristics account for 21% of the inhibiting factors. The major inhibitor is the low level of learner motivation to apply the training (13% of the inhibiting factors). Other factors identified refer to the learner’s difficulty with skill or knowledge mastery, and an inability to see the relevance of the training to the job requirements.

- **Training delivery factors:** The training delivery factors represent for 13% of the total, and refer to inappropriate methods, media and delivery style. Low level of trainer credibility is also mentioned as a factor inhibiting transfer.

In analysing the content of these groupings it is clear that practitioners regard the low level or lack of motivation on the part of the individual learner and a non-supportive organisational climate, as expressed in a lack of supervisor encouragement and reinforcement to apply the training, as the principal inhibiting factors in the transfer process. By understanding how these two inhibitors operate in relation to the transfer process and the counter strategies that can be employed, practitioners can increase the likelihood that a majority of learners will reach the stage of transfer maintenance.
Intention to transfer

Relatively little attention has been given to motivational factors impacting training effectiveness, yet transfer appears to depend as much on an inclination to apply the learning (intention to transfer) as it is on post-training capability (Knox, 1988; Richey, 1990; Yelon, 1992). Studies show that the motivation to learn and a positive pre-training attitude positively correlate with the amount of learning that occurs (Baldwin and Magjuka, 1991; Tannenbaum, Mathieu, Salas, & Cannon-Bowers, 1991). Baldwin, Magjuka & Loher (1990) found that the level of pre-training motivation increases when the training is perceived as mandatory (thus challenging a widely held assumption), and when the learner has an expectation of post-training accountability to management. Despite the paucity of research on trainee motivation to learn, it appears that pre-training motivation affects both learning and post-training intention to transfer.

There is a difference between the motivation to learn and the motivation to transfer. The motivation to transfer is the intention of the learner to use the skills on the job, and is influenced by learners' confidence in their ability to use the new skills, by their perception of the relevance of the training to their work by their ability to identify work situations where using the new skills would be appropriate, and because they believe that use of the new skills will improve their job performance (Noe, 1986).

Intuitively, one would expect the level of post-training intention to transfer to directly affect the extent of transfer. To date, this is an unresearched area. In the only study assessing the outcomes of intention to transfer, the researchers questioned course attendees four months after the training (Huczynski & Lewis, 1980). They found that those who attempted to use the skills at least once, had demonstrated more motivation at the commencement and close of the course than those who failed to make any attempt. In other words, transfer initiation was more likely to occur among trainees with a higher level of intention to transfer.

Despite many unanswered questions about the relationship between pre- and post-training motivation and its effect on transfer initiation and transfer maintenance, interventions which will enhance the level of pre- and/or post-training motivation should be given serious consideration by trainers since they are likely to result in a greater degree of transfer (Tannenbaum et al. 1991).
Perceived Level of Supervisor Support

Perceived level of supervisor support and transfer has also received comparatively little attention (Baldwin & Ford, 1988; Russell, Terborg & Powers, 1985). In relation to transfer, organisational climate is “the type of support or constraints that trainees will be likely to encounter in their job situations, concerning their use of the training” (Rouiller, 1989, p.4).

Mosel (1957) was the first to articulate the link between an unsupportive organisational climate and transfer failure. He concluded that training will only transfer to the extent that supervisors support and practise the same behaviours the staff are taught in the training environment. In other words, irrespective of the training, most learners will adopt the behaviour of the organisational role models in their immediate work environment. If training is not congruent with what management is informally teaching and reinforcing day by day, it will not ‘stick’. Mosel’s insights were largely ignored for twenty years, but during the last decade practitioners and researchers have begun to recognise that learners returning to a favourable work environment will demonstrate greater utilisation of the training (see, for example, Baumgartel et al., 1984; Broad & Newstrom, 1992; Richey, 1992).

Recent research suggests organisational climate is at least as important as learning in facilitating transfer (Richey, 1992; Rouiller, 1989; Russell et al., 1985), and exerts a greater influence on transfer than trainee personality differences, in some cases regardless of the quality of the training (Baumgartel et al., 1984). The learner’s perception of organisational support from supervisors and co-workers, and the likely availability of resources and technologies necessary to support transfer create a “culture of transfer” (Pea, 1987), which positively influences motivation to learn as well as intention to transfer (Laker, 1990; Noe, 1986). Some researchers have suggested that it is the perception of support, rather than the reality, which is the critical factor (Richey, 1992; Rouiller, 1989).

Although organisational climate tends to be perceived through the attitudes and actions of the learners’ supervisor and co-workers (Broad & Newstrom, 1992), supervisors exert more influence than co-workers on the learner’s decision to implement the training. Supervisors are the single most important influence on the transfer process and where they encourage and model the desired behaviours, trainees are more likely to apply the new skills; where they do not, their attitude becomes an inhibiting factor (Huczynski & Lewis, 1980; Richey, 1992). However, the presence of model behaviour will not of itself lead to transfer - the ‘missing link’ is an environment in which supervisor and co-workers value the use of the training and the new work behaviours (Richey, 1990; Yelon, 1992). Thus transfer is supported when the learning experience and the work environment work together to achieve the same objectives, and when
trainees experience encouragement and reward for mastering and using the new skills.

A careful analysis of the organisational environment will identify potential transfer facilitators and inhibitors. On the basis of this analysis, trainees can be provided with ways to deal with the inhibitors if the organisational environment cannot be modified to promote transfer (Tannenbaum & Yukl 1992). Beaudin (1986) and Yelon (1992) provide useful sets of questions to assess the organisation in terms of its value system, formal and informal rules, degree of support, and other factors which are likely to inhibit or support transfer. These questions should first be addressed at the course design phase in order to align course content with the organisational climate. If training content is not congruent with organisational goals and values, only partial transfer or even transfer failure may be the result (Georgenson, 1982; Gordon, 1989; Gradous, 1991). For example, a course on consultative decision-making in an organisation which values and practises individualism, is not likely to result in a high level of transfer.

Despite some insightful research on the relationship between organisational climate and transfer by Richey (1992), demonstrating how a positive perception of supervisor support facilitates transfer and vice versa, we still lack in-depth understanding about the specific elements in the training environment, the work place, and the learner which inhibit or support transfer.

**Transfer Model**

The model in Figure 2 is a framework for conceptualising the transfer process in terms of inhibiting or supporting factors. It is based on Lewin’s (1951) force field theory which is a systems approach to organisational change. According to Lewin, the behaviour of individuals in any system results from the total forces acting upon them. These forces have both magnitude and direction—driving forces work for change while constraining forces tend to resist the change and preserve the status quo (Petri, 1991; Sanders, 1977). Force field theory provides a suitable paradigm for a transfer model because it recognises that the entire system within which the individual learns, applies and maintains the new knowledge and skill, is subject to a myriad of influences, rather than to single or isolated factors.

The training input, itself subject to supporting and inhibiting forces is dependent on the learner’s motivation to use the training in the workplace. Some factors may both inhibit and support, depending on situational cues. For example, content relevance is an inhibiting factor when learners fail to see the relationship between the training and their job. But it becomes a supporting factor when learners are clear about why they are receiving the training and how it will improve their job performance.
The intention to transfer is initially impacted by factors operating within the training environment. It is then impacted by factors operating within the immediate workplace as well as the larger organisational environment. When the learner attempts to apply and maintain the new knowledge and skills, the presence of inhibiting factors in excess of, or stronger than, the supporting factors will act to constrain the implementation. This leads to a declining intention to continue using the skills, resulting in partial or failed transfer. By reducing the influence of the inhibitors and strengthening the supporting factors, transfer initiation is supported not only immediately after training but also once the learner has returned to the workplace. In this way the progress through the transfer stages to transfer maintenance is encouraged.
Bridging the Gap

The transfer model highlights the disconnect that exists between the training environment and the workplace, the domain of the transfer process. Although all learners leave the training with some level of intention to transfer, various environmental factors may begin to undermine this motivation almost immediately. This in turn minimises the likelihood of transfer. For example, the expectation of long hours on the first day back in the office in order to clear the backlog of work, or the anticipation of opposition to new ideas by the supervisor and/or colleagues may decrease the level of transfer intention. Conversely, factors operating during the course as well as immediately afterwards may serve to increase the motivation - for example, increased confidence levels after skill practice, anticipation of the usefulness of the skills, clear ideas about how and when to use the training on the job, and the expectation of encouragement to implement the training.

Yet even when learners do return to a favourable work environment many do not consistently apply the training, and transfer eventually fails. Some do not know how to plan the application, some attempt too much too soon, some give up at the first sign of difficulty, and others do not know how to implement in operational terms what they have learned (Baldwin & Ford 1988; Marx, 1982). Rather than leave transfer to chance, practitioners must employ strategies to improve the odds in favour of transfer initiation and maintenance, and thus lessen the likelihood of partial transfer or transfer failure. Strengthening selected supporting factors and weakening inhibitors before learners leave the training environment will enhance the forces operating in favour of transfer.

Recent studies have demonstrated a significant increase in training transfer when learners are given goal setting and self-management instruction before returning to the work place (Gist, Bavetta & Stevens, 1990a, 1990b; Noe Sears & Fullenkamp, 1990; Tziner, Haccoun & Kadish, 1991; Wexley & Baldwin, 1986). In the second part of this article various self-management and goal setting strategies with the potential to enhance transfer by undermining the influence of inhibiting factors while building on supporting factors, will be discussed.

References


**Author:** Marguerite Foxon is completing her PhD at Florida State University. During 1993 she spent 7 months in Motorola, Chicago, researching the use of action planning to facilitate transfer of training. She is a frequent contributor to AJET, and was active in NSPI (Sydney) before moving to Florida. Her address is Florida State University, PO Box 66784, Tallahassee FL 32313, USA.