

**TRANSFER OF LEARNING:
Planning Effective Workplace
Education Programs**

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Transfer of Learning

Planning Workplace Education Programs

Transfer of learning is pervasive in our everyday life at work, at home and in the community. Transfer takes place whenever our existing knowledge, abilities and skills affect the learning or performance of new tasks. But what are the principles of effective transfer of learning? How can workplace instructors design training programs to facilitate transfer? What can the shop floor supervisor do to encourage transfer of learning? How should trainees or participants prepare for transfer back on the job? Given the centrality of this topic to so many areas of workplace education, this discussion paper will draw together the results of research and some practical techniques that will help practitioners in the field. It is organized into four parts: 1) definitions of learning transfer, 2) factors influencing the transfer of learning, 3) integrating learning transfer into program planning and 4) strategies to enhance the transfer of learning. The report is summarized through a number of application exercises that challenges the reader to recall former workplace education experiences and interact with contents of the document.

What is Transfer of Learning?

In the context of the workplace, transfer of learning is the effective application by trainees to their jobs of the knowledge and skills gained as a result of attending an educational program. Stated in another way, transfer of learning occurs when learning in one context or with one set of materials impacts on performance in another context or with other related materials. From a theoretical point of view transfer of learning occurs whenever prior learned knowledge and skills affect the way in which new knowledge and skills are learned and performed. When later acquisition or performance is facilitated, transfer is positive. When later acquisition or performance is impeded, transfer is negative. As well, transfer can be general affecting a wide range of new knowledge and skills or specific affecting only particular knowledge and skills within a circumscribed subject matter (Cormier & Hagman, 1987; Broad & Newstrom, 1992; Perkins & Salomon, 1996).

Simply put it is often referred to as the "so what" or "now what" phase of the learning process. Transfer of learning or often referred to as transfer of training is not a new step in the program planning process but rather one that is receiving increased attention. Transfer is a key concept in adult learning theory because most education and training aspires to transfer. Usually the context of learning differs somewhat from the ultimate context of application. Consequently, the end goals of education and training are not achieved unless transfer occurs. Transfer is all the more important in that it cannot be taken for granted. Abundant evidence shows that very "often hoped for" transfer from learning experiences does not occur.

As Baldwin and Ford (1988) point out there is a growing recognition of a transfer problem in organizational training. It is estimated that while North American industries annually spend over one hundred billion dollars in training and development not more than ten percent of these expenditures actually result in transfer to the job. Researchers have similarly concluded that the amount of training conducted in an organization fails to transfer to the work setting (p. 63). As sponsors of workplace education programs demand more concrete and useful results, it is essential that a plan be developed for helping participants apply what they have learned.

Although concern about transfer of learning has grown enormously during recent years, the transfer problem has been addressed for more than 35 years. As early as 1957, J. Mosel pointed to the mounting evidence that very often showed that training makes little or no difference in job behavior. He identified three conditions for transfer: training content must be applicable to the job, the trainee must learn the content and the trainee must be motivated to change job behavior to apply what was reamed. In 1971, L. Nadler discussed the notion of support systems and referred to these as management actions to support transfer. Basically, he organized the support systems into categories relating to level of management and timing of actions. In 1982, M. Broad presented research identifying over 50 actions that managers can take to support transfer in several time categories. As well, other writers have discussed typical transfer situations where instructors put all their efforts into the needs analysis, design and delivery of training which result in a relatively low level of voluntary or unsupported transfer.

Mikulecky, Albers, & Peers (1994) report that the nature of transfer has also interested psychologists for more than a century. In examining what research has revealed about literacy transfer in general they suggest that useful studies and analyses have appeared in three major areas: intelligence, expert-novice differences and transfer theory development. Although some early studies indicated that general intelligence or the "G" factor was related to transfer, much more recent work suggests that the concept of a single general intelligence is somewhat misleading. Sternberg (1988) purports that there may be multiple aspects of intelligence which are highly likely to be influenced by experience. In the area of expert-novice differences, there is a growing body of research which indicates that learning transfers best when it is done in real situations in which both knowledge and strategies are learned at the same time. For example, Scribner & Fahrmeir (1982) found that expert carpet layers who could do flawless arithmetic on the job, did not score highly on arithmetic tests that decontextualized math learning.

In terms of transfer theory development, Perkins & Salomon (1996) suggest that transfer is actually a multi-faceted phenomena of at least two distinct mechanisms-the low road and the high road. Low road transfer happens when conditions in the transfer context are similar to those in a prior context of learning to trigger well developed semi-automatic responses. For example, when a person is moving house and rents a small truck for the first time, they find that the familiar steering wheel, shift and other features evoke useful car driving responses. Driving the truck is almost automatic, although it is a different task in several minor ways (p. 426).

High road transfer, in contrast, depends on abstraction from the context of learning as a deliberate search for connections: What is the general pattern? What is needed? What is known that might help? For instance, time management strategies learned in a workplace education program might be drawn upon to solve new problems around task-time allocations on the shop floor.

Factors Influencing the Transfer of Learning

A number of reasons have been identified to explain why employees either do or do not apply what they have learned as a result of attending workplace programs. Although there has been little research done in this area, a number of writers

have discussed some of these key influencing factors. For example, Newstrom (1986) reported that the most significant barrier, in the eyes of the instructors, was the lack of reinforcement on the job to support trainees in applying training to their jobs. In effect, the instructors were saying that trainees didn't expend the energy to do something new because no one around them cared. The second most powerful impediment to workplace learning transfer mentioned by Newstrom was interference by the immediate environment. Such factors included working with time pressures, insufficient authority, ineffective work processes or inadequate equipment. This implies that even if trainees are willing to change, they may not be able to use their new skills because of obstacles (real or imagined) placed in their way.

The third most important barrier was lack of active support by the organizational climate for the transfer of the program's content or skills to the workplace. The instructors polled believed that the typical organization simply did not provide strong philosophical support for the goals of training and development programs.

In a similar vein, Kemerer (1991) suggests that factors inhibiting learning transfer can be organized around three areas: structural expectations, improvement of skills and establishing rewards. Under the category of structural expectations, poor timing of the training is a factor. Much of the adult learning theory has argued at length about readiness as a key variable in learning. There can be little doubt that without the perception by the trainee of the need for new behaviours, there is no motivation to change and, therefore, no readiness to learn. Thus the introduction of new or changed work expectations has to be timed carefully so that participants are ready to learn when the training program is offered.

The second category of variables that impede learning transfer are related to elements of the design and implementation for example, the unfocused learning objective. According to Kemerer (1991, p. 71) one of the best ways to inhibit the transfer of learning is to use learning objectives that are written from the instructor's not the learner's point of view; are so specific that they sound odd and do not mirror the exact tasks required by a job. A final area which affects training transfer is the establishment of rewards. Without the application and reinforcement of new skills, new behaviours are likely to diminish. In workplace education, the supervisor is a key factor in reinforcement. In multi-layered

complex organizations transfer of skills requires total vertical integration where one succeeding management level reinforces the behaviours of subordinate levels.

Caffarella (1994) in an attempt to summarize some of the literature on the topic categorizes these ideas into five key influencing factors:

1. The perceptions of program participants.
2. The program design.
3. The program content.
4. Changes required to apply learning.
5. Organizational context.

Depending on how these factors play out in the transfer of learning process, these five factors can be barriers or enhancers to that process. Table 1 depicts each of these factors with examples of specific workplace barriers and enhancers. As Ottoson (1994) mentions, program planners in workplace education have varying levels of control over the decisions they can make related to the factors that influence the transfer of learning. They have most control over program design and implementation and probably less control over the organizational context. Because planners have the greatest decision making power over the design implementation of a program, it is important that instructors consider planning for transfer of learning as an integral part of the planning process.

Integrating Learning Transfer into Program Planning

To integrate learning transfer into the planning process of workplace education programs, there are a number of important areas to consider such as when should transfer strategies be employed, who are the key players involved and how can it be best facilitated.

When do Barriers to Learning Transfer Usually Arise?

In an attempt to answer this question, a number of researchers have analyzed the major barriers cited in the transfer literature into the most likely and the second

most likely time period in which that barrier would arise. These three time periods were before, during or after training occurs (Broad & Newstrom, 1992; Wenz & Adams, 1993). The results revealed several interesting phenomena. Barriers to transfer of learning were to some degree a problem throughout the three major time periods effecting the training process. However, the most likely period in which barriers tend to arise appeared in the category after training occurs which indicated the distinctive presence of negative threats to learning transfer.

As well, barriers were more frequent problems during and after the training program than before training. Another finding from these studies suggested that barriers were most dominant after the program was formally over. These results are consistent with the widespread and erroneous perception that transfer of training needs attention only after training has been completed. The number of barriers with primary and secondary impact before and during training shows that attention must be given in these time frames as well. One of the major conclusions emerging from the analysis of the timing of behaviors, is that an organization cannot wait until after a training program is over to address the transfer of training problems. Barriers to transfer of training should be eliminated or reduced before, during and after training.

Which Source or Role is Primarily Responsible for the Barrier?

In a number of staff development follow-up studies, some interesting conclusions emerged when the primary responsibility for barriers to transfer was examined (Laker, 1990; Broad & Newstrom, 1992; Detterman & Sternberg, 1993). In these studies primary responsibility was defined as the source of control or cause. Four sources of responsibility were identified: the trainees themselves, the instructor, the direct supervisor of the trainee and the organization in general.

Supervisors hold the most significant keys to resolving the problem of transfer of training. They hold the primary responsibility for the most cited barrier-absence of reinforcement on the job for the newly acquired skills and abilities. According to the instructors surveyed in these studies, uninvolved supervisors who failed to support and encourage the application of learning on the job represented the major barriers to transfer and were a primary target for change.

Table 1. Examples of Barriers and Enhancers to the Transfer of Learning.

| BARRIERS | FACTORS | ENHANCERS |
|---|------------------------------------|--|
| <p>an absence of the foundational knowledge or experience</p> <p>no time to incorporate what has been learned into job tasks back on the shop floor</p> | Program Participants | <p>prior knowledge and experiences that enables new connections</p> <p>a willingness to take the time to apply that learning</p> |
| <p>program lacks application to the job</p> <p>includes no follow-up strategies once back on the job</p> | Program Design and Implementation | <p>includes application exercises as a major part of the instructional activities</p> <p>includes transfer-of-learning strategies that trainees have helped create</p> |
| <p>focuses on knowledge when it is skill and attitude changes that are needed</p> <p>trainees can't use the information</p> | Program Content | <p>trainees see the relevance of the content</p> <p>builds on previous knowledge and experiences of participants</p> |
| <p>are disruptive to present practices and routines</p> <p>no ownership in the program changes</p> | Changes Required to Apply Learning | <p>are allotted enough time to develop</p> <p>work environment is perceived as welcoming the change process</p> |
| <p>lacks concrete support from peers, supervisors and managers</p> <p>offers a nonsupportive climate for learning</p> | Organizational Context | <p>offers support from key personnel along with tangible rewards</p> <p>adapt to new structures and norms</p> |

Instructors hold primary responsibility for any problems concerning training that is impractical, irrelevant or poorly designed or delivered. Although instructors can't totally control trainee perception of these factors, their decisions can clearly affect them. These trainee perceptions are likely the result of instructors who were not in touch with the supervisors and trainees on felt needs, priorities, organizational directions, operating problems and so on.

A third source of responsibility for impediments to transfer was partially with the trainees themselves. Although perceptual, trainees may believe that the training is impractical, irrelevant or poorly designed or delivered. Trainees were a primary barrier source due to their own attitudes regarding the personal costs such as discomfort or increased effort associated with change.

According to Broad & Newstrom (1992, p. 23) other barriers throughout the organization also result in the limited impact of contemporary training programs. These include: absence of a strong organizational culture specifically supporting training and its applications, physical obstacles to transfer and peer group pressures that tell recently trained employees not to change their practices. The organization in general has primary responsibility for these barriers which can also interfere with transfer of the best intended training.

How Can Learning Transfer Be Facilitated?

Much of the literature suggests that it is possible, to teach successfully for transfer. Some patterns that emerged in studies of effective transfer instruction include such ideas as modeling practice, providing feedback and the use of cooperative learning groups (Mikulecky, Albers, & Peers, 1994). A number of investigations have shown that when the instruction models effective literacy practice and provides sufficient practice time and feedback, students are able to transfer newly learned literacy strategies to new tasks. For example, Palincsar & Brown (1986) report that young adult students successfully learned to transfer several metacognitive reading strategies such as making predictions, asking questions, summarizing and clarifying to new situations through reciprocal teaching. As well, Ehlinger (1989) found that by teaching think-alouds strategies, young adult students were better able to monitor their own reading comprehension.

In addition, several literacy studies have indicated that learning in social groups and pairs can provide enough interaction to facilitate transfer to new situations. A major area of interest involved co-operative learning. Co-operative learning situations in literacy usually involve two or more students working together to improve their understanding of text or to retain material in texts. Research by O'Donnell (1989) and Larson, Dansereau, O'Donnell, Hythecker, Lambiotte & Rocklin (1985) outlined a pattern of situations in which co-operative learning facilitated the transfer of reading abilities. Such a pattern consisted of reading strategies for summarizing important ideas by listening and correcting summary mistakes. It would appear from these studies that transfer occurs when there is sufficient time to practice strategies and when the co-operative activity calls for the learner to internalize what has been learned.

Kemerer (1991) using his same framework for factors inhibiting learning transfer maintains that there are three areas of strategies for increasing learning transfer: structuring expectations, improving skills and establishing rewards. In the structuring expectations category he reports that strategies like clarifying what trainees are required to do are important. Kemerer believes that often we are not as clear as we think we are in explaining our expectations to others. A good rule of thumb is to err on the side of being too specific rather than too general. Focus training on manageable short-term changes that build toward longer-term objectives.

In the area of improving skills, he suggests that trainers can use effective methodology. For example, allow for a minimum of 60 percent active participation during a program. Active participation means that the participants, not the facilitator, talk. In any class with adult participants, there is a substantial experience base represented among the participants. The third category relates to the importance of providing rewards when trainees return along with encouragement to apply the new skills.

Strategies to Enhance the Transfer of Learning

As highlighted in the preceding section, there are certain ways and approaches to facilitate learning transfer. In this part of the report over thirty different transfer strategies are discussed. These techniques were taken from some of the key investigations cited earlier in the document and are organized around the three major periods of the training process-before, during and after. As well, the strategies are centred around the different program participants who have an opportunity to strengthen the transfer process the workplace instructor, the trainee and the supervisor. For the purposes of this report, the term supervisor can include the company manager, the first-line supervisor, the team or group leader or anyone in the organization with authority and responsibility over employees. In terms of a format for describing these transfer strategies, the reader will find simple headings of the techniques by training period and program participant. For example, the section starts off with pre-training transfer strategies for the workplace instructor which is followed by transfer strategies for the workplace instructor during training and so on. A summary of all learning techniques discussed in this section appears in Table 2.

Pretraining Transfer Strategies for the Workplace Instructor

1. *Involve supervisors and trainees in the program development.* It is crucial that trainers involve managers and trainees in needs assessment and course design. It is the instructor that is often in the position to initiate the involvement of other partners. Both supervisors and trainees can help determine training methods and materials or even pilot test preliminary course designs to measure effectiveness and gain feedback.
2. *Design instruction systematically.* Trainers can ensure that a program produces effective learning by identifying desirable outcomes, stating trainee-oriented objectives for each session, selecting instructionally appropriate mixes of methods, structure the program into phases, pilot test and evaluate the results. Essential ingredients include the creation of manageable sized units of material, proper sequencing of content and a good mixture of instructional approaches. Trainees should be actively involved in their own learning process at every point in the program.

3. *Provide practice opportunities.* Opportunities for practice of new learning provided during the training give trainees the chance to put newly acquired knowledge to work. They are safe opportunities to experiment with new skills and give instructors the chance to note individual levels of achievement and difficulty. They also give trainees the chance to ask questions, try alternatives and gain confidence. One of the keys to success in this strategy is developing practice opportunities that are relevant to levels of trainee skills and convincing trainees that they can benefit from doing so.

4. *Develop trainee readiness.* Instructors can stimulate trainee readiness for the learning to come by carefully preparing and distributing a number of devices designed to hook training interest in advance of the training session. This could include attractively packaged pre-course materials distributed to trainees before the start of the program. These may include simple descriptions of how the program fits into the mission of the organization, examples of prerequisites needed for the course or simple self-assessment exercises that allow trainees to score themselves and identify areas of potential development.

5. *Design a peer coaching component for the program.* This method assists trainees in coaching each other to apply newly learned behaviors through a carefully structured sequence. Before the training program begins, the instructor creates a method to teach the peer coaching process which consists of observation, data recording, giving and receiving feedback. It is important that participants during this component of the program are voluntary and that management give support to this process.

Table 2: Transfer of Learning Strategies

| Strategy | When to Use Them | | | Who Could Use Them | | |
|---|------------------|----------------|---------------|--------------------|------------|---------|
| | Before Program | During Program | After Program | Instructor | Supervisor | Trainee |
| Involve supervisors and trainees in the program development | ✓ | | | ✓ | | |
| Design instruction systematically | ✓ | | | ✓ | | |
| Provide practice opportunities | ✓ | | | ✓ | | |
| Develop trainee readiness | ✓ | | | ✓ | | |
| Design a peer-coaching component for the program | ✓ | | | ✓ | | |
| Develop application-oriented objectives | | ✓ | | ✓ | | |
| Answer the "What's in it for me" question | | ✓ | | ✓ | | |
| Give individualized feedback | | ✓ | | ✓ | | |
| Provide job performance aids | | ✓ | | ✓ | | |
| Provide follow-up support | | | ✓ | ✓ | | |
| Conduct evaluation surveys and provide feedback | | | ✓ | ✓ | | |
| Develop recognition strategies | | | ✓ | ✓ | | |
| Provide refresher sessions | | | ✓ | ✓ | | |
| Involve supervisors in the needs assessment | ✓ | | | | ✓ | |
| Provide orientations for supervisor | ✓ | | | | ✓ | |
| Provide supervisory coaching skills | ✓ | | | | ✓ | |
| Select trainees carefully | ✓ | | | | ✓ | |
| Provide a positive training environment | ✓ | | | | ✓ | |

| Strategy | When to Use Them | | | Who Could Use Them | | |
|--|------------------|----------------|---------------|--------------------|------------|---------|
| | Before Program | During Program | After Program | Instructor | Supervisor | Trainee |
| Prevent interruptions | | ✓ | | | ✓ | |
| Transfer work assignments to others | | ✓ | | | ✓ | |
| Recognize trainee participation | | ✓ | | | ✓ | |
| Participate in transfer action planning | | ✓ | | | ✓ | |
| Review information on employees in training | | ✓ | | | ✓ | |
| Provide opportunities to practice new skills | | | ✓ | | ✓ | |
| Debrief the trainer | | | ✓ | | ✓ | |
| Provide role models | | | ✓ | | ✓ | |
| Give positive reinforcement | | | ✓ | | ✓ | |
| Celebrate small wins | | | ✓ | | ✓ | |
| Provide input into program planning | ✓ | | | | | ✓ |
| Actively explore the training situation | ✓ | | | | | ✓ |
| Participate in advance activities | ✓ | | | | | ✓ |
| Link with a buddy | | ✓ | | | | ✓ |
| Maintain an ideas and application notebook | | ✓ | | | | ✓ |
| Plan for applications | | ✓ | | | | ✓ |
| Anticipate relapse | | ✓ | | | | ✓ |
| Review training content | | | ✓ | | | ✓ |
| Develop a mentoring relationship | | | ✓ | | | ✓ |
| Maintain contact with training buddies | | | ✓ | | | ✓ |

Transfer Strategies for the Workplace Instructor During Training

1. *Develop application-oriented objectives.* Application-oriented objectives are behavioral statements of what the trainees should do once they return to their jobs. They are more skill directed or performance oriented than other types of objectives. By preparing these types of objectives with trainees, the trainer is cueing the trainees to think beyond the current session. On the job use of the new material is emphasized and trainees can even be encouraged to tailor the objectives to fit their own situation
2. *Answer the "what's in it for me" question.* Many trainees want to know what they will gain for their investment of time and energy in changing their behavior. Instructors should anticipate and answer this question. Will the shop floor be safer? Will it provide me with more job variety? Will increased quality result in personal financial gain? Trainees have a high degree of self-interest at heart and this should not be Mimi
3. *Give individualized feedback.* When an instructor has the opportunity to provide a brief related statement to one or more trainees, here she can shift more towards feed forward guidance (that which explains what to do). In using feed forward guidance the instructor reflects on how the trainee is doing but points all comments towards what the trainee should do and how he or she might integrate this back on the job.
4. *Provide job performance aids.* A key element in helping trainees retain what they learned and use what they know is to provide memory cues. Job performance aids are invaluable tools not only to slow memory loss but also to encourage trainees to keep applying new learning. Job aids are typically printed or visual summary of key points or steps covered in a training session. They may be kept at the trainee's work station as a daily reminder, posted on a wall or carried in a pocket.

Post Training Transfer Strategies for the Workplace Instructor

1. *Provide follow-up support.* Instructors can take the initiative to contact individual trainees or small groups after they have returned to their jobs. Questions that trainers can ask of individual trainees include: How are things going in your attempt to transfer some skills? Which of the major ideas I discussed in the program have you used so far? What has been the result? What can I do to help you transfer what you have reamed successfully?
2. *Conduct evaluation surveys and provide feedback.* Evaluation surveys help to remind trainees of what they learned and the need to apply it. After a short period (30 to 60 days) following the training program, trainers can design and distribute a simple survey questionnaire to each of the participants. The results should be tabulated, interpreted and a summary of the highlights sent to the entire group. The key to successful use of surveys and feedback as transfer strategies lies in their timing and the public recognition given to those with early accomplishments to report.
3. *Develop recognition strategies.* Most trainees are hungry for recognition of their efforts and achievements. Instructors can orchestrate ways to recognize trainee achievement during the training itself, at the end of the training and later in terms of an annual employee recognition event. Instructors may not be able to control such an event but they can play important roles in stimulating their occurrence.
4. *Provide refresher sessions.* Instructors can combat recall/retention/ application problems among trainees through the preparation of simple and straightforward refresher courses. The purpose is to provide a brief but coherent summary of the essential concepts and skills learned earlier. A problem-solving session should also be included to allow participants a chance to share tales of their successes and discuss why they have not been able to transfer some of the program ideas.

Pretraining Transfer Strategies for the Supervisor

1. *Involve supervisors in the needs assessment.* Because training is often designed to solve a present or future problem, overcome a gap or deficiency or prepare employees for future specific or general job responsibilities, supervisors should participate in identifying the training needs. This helps ensure that training programs meet high priority needs as perceived by the relevant stakeholders. Surveys, interviews and advisory committees all help to meet this objective.
2. *Provide orientations for supervision.* Supervisors can ask for and participate in advance orientation sessions regarding the training programs to which they will be sending their employees. They can discover the highlights of the training so that they can cue their employees in terms of what to expect, provide a proper role model for them and reinforce the desired behaviors following training. These advance sessions are especially useful when training programs have evolved over time incorporating revisions of content.
3. *Provide supervisory coaching skills.* First line supervisors can play an important role as an on-the-job coach. They can engage in follow-up observation, emotional support and encouragement, discussion to review the highlights of what was learned and how to adapt it to their specific jobs as well as providing frequent praise for progress made. Supervisors represent a potentially powerful influence for most workers and can provide individual coaching contacts which can help training transfer occur.
4. *Select trainees carefully.* Trainees learn best and are more likely to apply their newly learned knowledge and skill when they recognize a current or impending need. Trainees should know the criteria for selection and view the selection as a message of positive regard and contribution and potential. Successful training and its long-term application on the job is possible only when the right people are provided with the right training at the right time and are supported by the right kind of organizational environment.
5. *Provide a positive training environment.* Trainees will be primed for transfer if the timing of the training is right which builds on the concept of the teachable moment. In terms of location, sometimes training embedded in the work itself is most effective while in other cases offsite location protects trainees from work-related interruptions and distracters. As well, the physical surrounding and facilities during training should be comfortable and pleasant. Supervisors who help provide this type of positive learning context create a supportive climate for transfer.

Transfer Strategies During Training for the Supervisor

1. *Prevent interruptions.* Supervisors must establish and follow a policy that no interruptions will be allowed during the training session. Coworkers must be informed in advance that only in true emergencies will messages be delivered. In addition, training programs that involve individual change such as team building and attitude shifts should be held away from the worksite whenever possible. This eliminates casual drop in conversations and trainees returning to the work areas during breaks.
2. *Transfer work assignments to others.* Many trainees are concerned about the amount of work that will confront them upon their return from the training program. This can create a very real barrier to their immediate application of new ideas and skills. The solution to this problem is largely under the control of the direct front line supervisor. The supervisor must take responsibility for arranging for substitutes, job sharing or some arrangement appropriate on the shop floor.
3. *Recognize trainee participation.* As the training program draws to a close, supervisors can distribute certification of attendance to trainees. This formally signifies their satisfactory completion of the training and provides some form of recognition. That desired recognition is often most powerful when it comes from valued sources. This does not require much time and effort or cost but it provides trainees with a trophy to show coworkers and family.
4. *Participate in transfer action planning.* Training programs should include some type of action-planning session for trainees to plan how to transfer their learning to the job. On a group or individual basis, supervisors meet with the trainees at the end of the program but before the trainees have returned to the work site. The supervisor and trainees review the learning objectives, and the trainer describes what was learned to reach each objective. Both discuss how the learning can be applied to the current job, community or home situation.
5. *Review information on employees in training.* While employees are away from the job and being trained supervisors should review background information on each employee. This would include such things as previous work assignments, prior training and significant strengths. This will help supervisors to make better distinctions about the match between what is currently being learned and the opportunity to apply it.

Post Training Transfer Strategies for the Supervisor

1. *Provide opportunities to practice new skills.* Supervisors must ensure that all of the key ingredients for successful transfer are provided. Supervisors can assign trainees to the kinds of job tasks or special projects that will not only give them the chance to use what they learned but actually require them to apply it. In other words, supervisors can give trainees some control of their transfer destiny by assigning them to viable tasks that allow them to experiment with new learning.
2. *Debrief the trainer.* Trainers often accumulate rich data as they watch, teach and interact with trainees. Supervisors can seek out information in a debriefing meeting such as: What went well? What skills were clearly learned? What skills do trainees still need help to master? What didn't go so well? How can I help those who had some difficulty?
3. *Provide role models.* Employees often pattern their behavior after that of those around them. This is called vicarious learning - using observation of others to acquire new experiences and skills. Supervisors can capitalize on this kind of learning by providing positive role models for employees. In many work situations the most powerful role model for the trainee is the supervisor.
4. *Give positive reinforcement.* Reinforcement is the systematic application of a positive consequence to a trainee, contingent on the demonstration of a desired behavior. This requires some knowledge of what the trainee would perceive as positive. Usually a few words of praise given by a respected individual are sufficient. Positive reinforcement can be highly-effective for cementing a pattern of desirable work behaviour and stimulating its repetition.
5. *Celebrate small wins.* Individual attempts to transfer new skills to the workplace are important enough to receive some level of recognition. Supervisors can help to publicize the successful transfer of skills by commending worthy employees at shopfloor meetings, by providing individual praise in front of employees' peers and writing feature articles for the company newsletter on selected employees.

Pretraining Transfer Strategies for the Trainee

Little has been written about transfer strategies that trainees can take prior to their involvement in training. A paucity of information in this area may reflect the failure to consider the prime role of trainees.

1. *Provide input into program planning.* Much can be gained by having trainees participate in the planning process. This input can be into the program design, participation in the needs assessment or motivationally through trainee "buy in" to the process. Specifically, trainees can take the initiative to request training, identify potential development areas, clarify cultural differences and participate in a pilot run of the program.
2. *Actively explore the training situation.* In a case where the individual has been chosen by the supervisor, the trainee can ask some very important questions of the trainer or supervisor. Why was I chosen for the program? What can I expect to learn relevant to my job? What support can I expect for using the material when I return to my job? What opportunities will there be to begin using my new skills immediately? Whom can I use as a role model?
3. *Participate in advance activities.* A third strategy for trainees is to commit themselves to use all advance materials available to them. If these materials are not being used, trainees might take the initiative to request them from the organization or instructor. This strategy will encourage a greater degree of trainee commitment to the program success.

Transfer Strategies for Trainees During Training

1. *Link with a "Buddy"*. One easy strategy is for trainees to identify one or more other trainees with whom a supportive linkage can be established. This often occurs naturally during the training, either as a product of seat selection, task assignment or employees from the same work unit. The buddy process is straightforward. It is based on the psychological process of making a commitment to another person to change some type of behavior.
2. *Maintain an ideas and application notebook*. One way of doing this is by converting general principles into specific practices through such a notebook. For each session trainees can, on a sheet of paper in this notebook, record on the left-hand side the idea, concept or principle (what I heard or learned) and on the right-hand side the application of it (how I intend to use it). This notebook provides a self-discipline mechanism encouraging trainees to look for useful ideas throughout the training program instead of relying on their recall abilities.
3. *Plan for applications*. Goal setting is a strong motivational tool. Trainees can build goal setting into any training by committing themselves to sit down for a few moments at the end of the session to answer the question "What will I do with what I have learned?" Application planning builds on the concept of self-management-the idea that adults are capable of managing their own work performance.
4. *Anticipate relapse*. Despite the best of intentions, most trainees will find once they return to their job, they occasionally revert back into previous patterns of behavior. Since slips are predictable the most effective preventative strategy is to anticipate relapses. In this procedure the trainee engages in an internal dialogue or self-talk. Relapse anticipation can also be supplemented by trainees' brainstorming of the kinds of problems they expect to encounter as they try to transfer the training.

Post Training Transfer Strategies for the Trainee

1. *Review training content.* Trainees should establish a regular time for periodically reviewing their course materials following the training program. Research studies of memory following learning strongly indicate a sharp drop-off in recall capabilities following initial input. This decline is even worse when other factors interfere with immediate and regular application of the knowledge or when significant time passes before the individual reviews the materials. In short, everything points in the direction of the desirability of early and frequent review.
2. *Develop a mentoring relationship.* In general, mentors are a rich potential source of useful information and guidance. Mentors from the same cultural background as trainees can provide particularly valuable assistance. Trainees can use the mentor as a source of feedback, bouncing new ideas off the mentor and asking for constructive criticism on the application of the new skill. This kind of feedback can supplement that obtained from the supervisor.
3. *Maintain contact with training buddies.* The entire purpose of the buddy relationship is to increase the likelihood of transfer through the use of interpersonal commitment, mutual support and goal setting. The buddies must agree in advance that they will not allow meetings to become merely an opportunity to complain to each other about how much work they have. The key lies in the strength of the two parties' commitment to maintaining mutual contact for an extended period.

Application Exercise I

Factors that influence the transfer of training in your work environment

1. Describe briefly a workplace education program that you have developed or delivered.

Types of Needs Assessment _____

Program Goals: _____

Target Group: _____

Content: _____

Teaching Methodology: _____

Evaluation Strategies: _____

2. In the left-hand side column there are 5 factors previously discussed that influence transfer. Across the top row are headings Enhancers, Inhibitors and Decision Making Control. List specific things that enhanced or inhibited learning transfer in the program you described above. Then indicate what span of decision making control you had for each factor you listed.

| | Enhancers Decision Making Control (a lot, some, little, none) | Inhibitors Decision Making Control (a lot, some, little, none) |
|---|--|---|
| Program Participants | | |
| Program Design & Delivery | | |
| Program Content | | |
| Changes Required to Apply Learning | | |
| Organizational Context | | |

Application Exercise 2

Planning for Transfer of Learning

1. For this exercise, use a workplace education program that you are planning and develop a transfer of learning chart. List each strategy according to when it would be used and who would use it.

| <i>Program Participants and Strategies They Should Employ</i> | | | |
|---|------------|---------|---------------------------------|
| When to Use Strategies | Instructor | Trainee | Supervisor or Other Key Players |
| Before the Program | | | |
| During the Program | | | |
| After the Program | | | |

2. Review this plan with a key individual also involved in planning the workplace program and revise the chart based on the feedback you receive.

Strengths: _____

Limitations: _____

Potential Problem Areas: _____

Application Exercise 3

Detailing the Transfer of Learning Strategy

For this exercise refer to Table 2 which lists over 30 strategies to enhance transfer by training period and program participant. Choose at least three strategies from the list and provide details on how you think it should be implemented in your particular workplace environment.

1. Learning Transfer Strategy _____

2. Learning Transfer Strategy _____

3. Learning Transfer Strategy _____

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