Making Learning Stick

20 Easy and Effective Techniques for Training Transfer
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20 Easy and Effective Techniques for Training Transfer

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Dedication

To the memory of Dora Johnson, co-author and dear friend.
I miss her.
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In my early years as a trainer, the training manager of a large company told me that when people go back to work after they have been to training, their supervisors more often than not say to them, “Forget everything you learned in training, now I’ll tell you how we really do it!”

I recall when a woman came up to me at a conference and said I looked familiar to her. We talked about where we might have met each other and when she told me where she worked, I mentioned that I had conducted some training there several months earlier. She said, “Oh yes, I was in that class. It was a lot of fun!” I responded, “Great. How are you using what you learned?” She replied, “Let’s see…what was the topic of the training?” She didn’t even remember what the training was about!

How demoralizing is that? You work hard to put together and deliver a good training class, and it goes down the drain the minute trainees go back to their jobs.

Fellow trainer Dora Johnson and I met for coffee shortly after this incident, and, after whining and complaining about the issue, we decided to do some research about how to make training stick. We ended up making a lot of presentations to ASTD conferences and other training groups, and we wrote two books: Making Training Stick and Making Training Stick: A Training Transfer Field Guide, both of which have been very well received since they were first published. Between books, I did my PhD research and dissertation on the subject of training transfer. Dora passed away in 2005, and I decided to write this book by myself.
In the years since the first book was published, the workplace learning profession has become more aware of the issue of training transfer. Mary Broad and John Newstrom, Donald and James Kirkpatrick, and others have written books for the workplace learning practitioner community. The human resource development (HRD) academic community has published research studies on various aspects of training transfer, as it is called. Much more information is available today about activities and techniques that result in better transfer of training to the job, and about activities and techniques that don’t.

Workplace learning professionals are busier today than they have ever been before. Budgets are tight. A need exists to bridge research with practice and to provide proven techniques that instructors, designers, and coaches can use easily and inexpensively.

I have used most of the techniques in this book in my own training and learning sessions. Many of my colleagues have used some of them as well.

**Acknowledgments**

Many thanks to Charles Albach, Belinda Brin, Karen Collins, and Margi Mainquist for providing helpful input and feedback on the book draft. Thanks to Cara Koen for help preparing the draft and web resources, to Larry Lanius for his photography, to the Center for Application of Information Technology at Washington University for use of their facility, and to the St. Louis Chapter of the American Society for Training & Development for the Sticky Session idea. Special thanks to the many friends and colleagues who continue to provide support and encouragement for my work on training transfer.
Chapter 1

Introduction:
How to Use This Book to Your Best Advantage

What’s in This Chapter:

This chapter will introduce
- important terms and concepts
- supporting research for the suggested techniques and a training transfer model
- training design and delivery recommendations.

This book can be used in a variety of ways depending on the readers’ reading and learning styles, availability of time, and specific need. Although some may enjoy reading it cover to cover, others will want to use it as a reference, taking it off the shelf and reviewing it when making learning stick becomes top of mind. Here are some suggestions based on input from trainers who have used previous “stick” books:

- Read the first sections from beginning to end.
- Review the techniques—techniques to integrate education, or TIEs for short—with an eye for how each could be used.
- Set the book aside for future reference.
Before designing, launching, refreshing, or conducting a learning event, pull the book off the shelf and review the TIEs. Choose the TIEs for before, during, and after the learning that are the best fit for the learning content, delivery platform, trainer, and organizational culture.

Remember TIEs can be modified and adapted to fit specific needs and media.

Consult www.MakeLearningStickResources.com for templates and other resources.

**Terminology**

The field of workplace learning is evolving. New terminology is replacing and augmenting more familiar terms. This book uses many terms in an effort to find words that are familiar to all readers. There is no significance as to which of the interchangeable terms is used at various points in the book.

*Workplace learning, training, learning and development, and human resource development (HRD)* refer to the organizational function(s) or department(s) focused on providing learning and other development opportunities to employees and, in some cases, to customers and vendors. These activities are often located in several different parts of the organization. For example, in many organizations the human resources department is responsible for legal compliance training, such as harassment prevention, as well as leadership, management, or supervisor skills, and other related types of learning. Frequently the operations area of an organization is involved with technical skills and safety training, and the sales and customer service areas oversee the learning for the sales staff and customer service representatives. Coaching may be provided within each of these areas or through specific departments throughout the organization.

The information and techniques in this book are relevant and useful regardless of the content of the learning—soft skills, compliance, technical, coaching, or sales/customer service.
Practitioners

Trainer, workplace learning professional, learning designer, presenter, instructor, and coach refer to practitioners who design, develop, write, conduct, facilitate, or coach learners in the workplace. Their role may be to facilitate learning and discovery, to present content to be learned, or to develop materials for this purpose. The background and professional preparation of these individuals vary. Some have academic degrees up to and including doctorates in areas such as HRD, training and development, adult learning, and instructional design. Others have degrees in psychology or business and through happenstance, serendipity, or progressive work assignments have become involved in workplace learning. Others in this field have preparation and experience in elementary and secondary education, coming to corporate training as a second career, while still others are subject matter experts (SMEs) in technical areas or sales who have become involved in workplace learning as a temporary or permanent job assignment. These individuals may work within an organization, as an external consultant, or as a third-party provider of learning.

Regardless of their background, education, and experience, some or all of their job responsibilities are to provide learning and development so that people can do their current and future jobs more effectively.

Ways to Deliver Learning

Training, learning event, program, class, course, and coaching session refer to the many ways learning is delivered to learners. Traditional classroom learning still has a prominent place in most organizations. Other modes of delivering learning are becoming more and more popular. E-learning, webinars, coaching sessions, and teleclasses fall within the scope of training, learning events, and programs, and within the scope of this book. To be considered a learning event as opposed to delivery of information, learners must interact with a trainer or coach or with the learning material. Although some content in this book may be more appropriate
for one or more of these specific delivery modalities, most information is applicable to all of them.

Learners by Any Other Name

Participants, learners, coaching clients, and trainees are the individuals who participate in learning events. Hopefully they are also employees, customers, and vendors who apply what they learn to their jobs.

Training Transfer

Transfer of training is defined as the application on the job of knowledge, skills, and attitudes learned from training and the subsequent maintenance and use of them over a certain period of time.

Not Every Need Is a Training Need

It bears mentioning that not all perceived needs for training and coaching can in fact be resolved or addressed by training. This may account for a belief in some cases that training hasn’t stuck. It may not have been a learning issue in the first place. As Robert Mager (1997) has impressed upon several generations of workplace learning professionals, if individuals can perform a skill “if their life depends on it,” then it is not a training issue. Motivation and work environment may need to be adjusted. A trainee or coachee may not be willing to learn, and this should be addressed with him or her up front. An unwilling learner may blame the trainer or coach for the failure of learning to stick.

This book makes the assumption that training or coaching is an appropriate solution.

Background and Research

Much research on the topic of training transfer has been done since Making Training Stick and Making Training Stick: A Training Transfer Field Guide were published two decades ago. An overview of the most compelling research results follows, along with a model of the training transfer process.
Mary Broad and John Newstrom (1992) got the attention of the learning and development community when they introduced three time periods and three “pivotal roles” important for training transfer. Although based on limited survey research, their time/role matrices emphasized the importance of what happens to support training transfer before and after a training event, as well as the critical role the manager of the trainee plays in the transfer of training to the job. The three time periods mentioned are before, during, and after training. The pivotal roles are the manager, the trainee, and the trainer. Broad and Newstrom plotted these on a matrix and asked survey respondents, who were line managers and training practitioners, to rank the relative power of each time/role combination, with one being most important and nine being least important. The rankings follow in table 1-1.

Survey respondents then ranked the time/role combinations according to how frequently each was actually used, with one being most frequently used and nine being least frequently used (table 1-2).

A comparison of the most important time/role combinations with the most frequently used shows the greatest gaps between importance and use to be manager/before and manager/after (table 1-3).

Table 1-1. Most Powerful Time/Role Combinations

<table>
<thead>
<tr>
<th></th>
<th>Before</th>
<th>During</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>1</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Trainer</td>
<td>2</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Trainee</td>
<td>7</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

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Chapter 1

This information was interesting, but it was not empirical research—that is, it had not been verified or disproved by observation or experiment.

Many empirical research studies have been conducted since, and certain factors that play a significant role in the transfer of training have been identified. A need exists for more research on other factors that may also play a role. Most factors mentioned in this book are supported by multiple empirical research

Table 1-2. Most Frequently Used Time/Role Combinations

<table>
<thead>
<tr>
<th>Role</th>
<th>Before</th>
<th>During</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>5</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Trainer</td>
<td>2</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Trainee</td>
<td>8</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 1-3. Most Frequently Used/Most Powerful

<table>
<thead>
<tr>
<th>Role</th>
<th>Before</th>
<th>During</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>5/1</td>
<td>6/8</td>
<td>9/3</td>
</tr>
<tr>
<td>Trainer</td>
<td>2/2</td>
<td>1/4</td>
<td>7/9</td>
</tr>
<tr>
<td>Trainee</td>
<td>8/7</td>
<td>3/5</td>
<td>4/6</td>
</tr>
</tbody>
</table>

This information was interesting, but it was not empirical research—that is, it had not been verified or disproved by observation or experiment.

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Introduction: How to Use This Book to Your Best Advantage

studies. These factors are grouped into three key categories: learner characteristics, organizational environment and support, and training design.

Figure 1-1 shows the training transfer process: before, during, and after the learning event. In their integrative review of research on training transfer, Burke and Hutchins (2007) identified factors associated with training transfer that are strongly supported by empirical research. I have placed these factors into a process model, in the style of previous process models (Baldwin and Ford, 1988; Kontoghiorghes, 2004; Machin and Fogerty, 2003).

Each of the factors in the model increases or accelerates the likelihood that transfer will occur. It should be noted, though, that in theory and in practice, some training transfer can occur regardless of each factor in the model. Even the worst training design, the most unsupportive environment, and learners without characteristics supportive of transfer may still result in the transfer of learning to the job. The more factors that are present, however, the more likely it is that more of the learning will be used on the job. The spiral arrows attempt to show this acceleration factor.

Here is a brief explanation of what is meant by each factor.

**Learner Characteristics**

Most workplace learning professionals think of the learner as a blank slate with lots of prior experience and knowledge but without other significant distinguishing qualities and characteristics. Yet considerable research indicates that trainees with certain characteristics are more likely to transfer their learning to their jobs. Hutchin and Burke’s (2007) research survey of 170 workplace learning professionals found that the factors listed here are not widely recognized as being linked with training transfer, but research shows that they are.

*Cognitive ability* refers to general mental ability. People with higher cognitive ability are better able to retain the information and, therefore, transfer it to the workplace.

*Self-efficacy* is the belief an individual has about his or her ability to perform a particular task. Closely related to self-confidence, individuals with higher levels
Figure 1-1. Training Transfer Process Model

Learner Characteristics
- Cognitive ability
- Self-efficacy
- Pretraining motivation
- Positive emotional state
- Openness to experience
- Extroversion
- Perceived usefulness
- Career planning
- Commitment to the organization

Training Design
- Learning goals
- Content relevance
- Practice and feedback
- Behavior modeling
- Error-based examples
- Self-management strategies

Organizational Environment and Support—Before
- Strategic link
- Supervisory support
- Accountability
- Peer support

Organizational Environment and Support—After
- Opportunity to perform
- Strategic link
- Transfer climate
- Supervisory support
- Accountability
- Peer support

Job Performance and Skill Maintenance (Transfer of Training)

Source: Compiled by Barbara Carnes for Making Learning Stick (ASTD, 2010)
of self-efficacy are more likely to believe that they can perform new skills and are more likely to use supportive behaviors so that they do transfer more skills learned in training to their jobs.

*Pretraining motivation* refers to the learner’s interest before the training in learning the content and applying it to his or her job. Internal motivation to learn and apply the learning is more likely than external motivation to result in transfer. External motivators such as rewards and incentives have not been found to produce higher levels of transfer to the job. Performance appraisals are an aspect of the accountability factor, another trainee characteristic, and so are not an aspect of this factor.

Some learner personality characteristics were related to better training transfer. Learners with *positive mental emotional states* (commonly referred to as positive attitudes) were more likely to transfer learning to their job, and learners with negative mental emotional states were less likely to do so.

Trainees who were *open to new experiences* were found to be better able to capitalize on learning successes, to acquire skills faster, and to transfer the new skills to their jobs.

*Extroversion*, or rather the specific aspect of extroversion that involves the tendency to verbalize thoughts and feelings, is related to training transfer. This is not necessarily to say that only extroverts are likely to transfer learning to the job, however. Trainees who are more introverted benefit from having extroverts in training with them because the extroverts increase verbalization of strategies and applications, leading to more “cognitive sharing” so that all training participants benefit. A need exists for more research on this factor but it does seem reasonable.

Learners are more likely to transfer learning to the job when they believe that the *new skills will be useful to them in their jobs*. Put another way, when trainees *perceive* that they need to improve their job performance in areas related to the new skills being taught, they are more likely to transfer their training to the job.
Trainees with personal *career plans* that they update regularly are more likely to transfer their learning. They are able to see potential benefits of the training, long term as well as short term, more accurately.

Learners who identify with workplace groups (departments, work units) and are *committed to the organization* tend to transfer their learning to their jobs. There is a relationship between identification with workplace groups and the desire to gain and use new work-related knowledge.

**Training Design**

Instructional designers and trainers have intuitively known that certain elements of a good training design lead to better learning in the classroom. Research studies indicate that these elements have also consistently been found to lead to higher levels of training transfer to the job.

*Objectives or goals* for the learning that are explicitly communicated to trainees show them what performance is expected. When these are present in the learning, there are higher levels of training transfer. When trainees receive the objectives in advance of the training, they are likely to have even higher levels of transfer.

When the learning *content is relevant* and specific to the trainee’s job duties, it is more likely to be applied to the job. The goals, materials, and skill practices should be adapted not only for the industry and the employer but also for specific job titles/duties.

When participants have opportunities to practice skills in the training and *receive feedback* on their practice, they are more likely to transfer the training to their jobs. Specifically, mental rehearsal ("what would you do if" scenarios) and behavioral practice strategies (role playing) have the strongest correlations with transfer. Distributing practice sessions throughout the training rather than concentrating them in one part of the learning event also results in higher levels of transfer.

*Behavior modeling,* that is, showing participants the desired performance or behavior either via audiovisual or in-person demonstration, enhances transfer.
Transfer is increased even more when key aspects of the demonstrated performance are described to the trainees.

*Error-based examples* are the flip side of behavior modeling. In an error-based example, participants are shown ineffective behaviors or are shown demonstrations of desired and undesired performance mixed together. Trainees who participate in these types of demonstrations are more likely to transfer their learning to the job.

Certain *self-management instructional strategies* have been found to increase training transfer. Two main types of strategies have the most research support: goal setting and the self-management model called relapse prevention. With both strategies, close to the conclusion of the training, participants envision how they will use the skills learned and develop a strategy for doing so.

**Organizational Environment and Support—Before and After Training**

Before and after training, the support of key individuals and the overall climate or culture of the organization, including certain organizational practices, are linked with higher levels of training transfer.

Trainees who understand how the *strategic direction* and goals of the organization are linked with the training content seem to be more likely to use on the job what they have learned in training. More research is needed on this factor, though.

Trainee *supervisors who show their support* for the training both before and afterward influence trainees’ transfer of skills to the job. Certain specific activities—discussing the learning with the trainee, participating in the training or a shortened version of it, and providing encouragement and coaching—have been shown to lead to better transfer. Other supervisor activities may also play a role and are being researched.

*Accountability* refers to the extent that management, including the trainee’s supervisor, other members of management, and/or the organizational culture, expects learners to use what they learn and holds them responsible for doing so. This can be accomplished through performance expectations and reviews, requiring learners to report afterward on their experience and their learning,
and, conversely, providing sanctions for failure to use learned skills on the job. More research is needed on this factor, however.

*Trainees’ peers* exert a strong influence on transfer of skills and knowledge. Networking with peers prior to a learning event helps them understand the value of the learning and specific ways it can be used on the job. Sharing ideas afterward about course content, applications, challenges, and successes exerts strong influence on trainees’ use of skills and knowledge on the job.

The *opportunity to perform new skills* soon after returning from training has a strong influence on whether trainees consistently use their learning. What we use, we remember. Several studies have found that this factor is the strongest transfer influence, and its absence is the greatest impediment to transfer.

A *climate* within the organization that supports training transfer is more likely to produce individuals who transfer their learning to their jobs. Cues and reminders, such as job aids, strategically placed posters, newsletter reminders, and so on, prompt trainees to use their new skills. Feedback and encouragement provided by supervisor and peers, positive consequences for using skills correctly, and remedial assistance when the skills are not used also play a part in a positive transfer climate.

Future research will undoubtedly reveal other factors that influence training transfer. Some research has been conducted on motivation to learn and motivation to transfer as well as extrinsic versus intrinsic motivation. More research is needed, however, to determine the exact role these factors may play in training transfer. Overlearning and cognitive overload show some relationship to training transfer but more research is needed here as well.

Locus of control—that is, the extent to which participants believe they have control of their own destiny and outcomes—has been found in some studies to be related to transfer of training; however, other studies have found no relationship.

Active learning design, conscientiousness as a trainee characteristic, and technological support are also factors that may play a part in training transfer and require additional research.
All of the research mentioned here has been focused on classroom learning events, yet more and more learning is being delivered through coaching and virtually through e-learning, webinars, and teleclasses. Little if any research has been conducted on how these types of learning events influence the transfer of learning to the job. This is also an important area for future research.

The techniques in this book are, for the most part, based on the described model of training transfer and the research that supports it. However, even though the model is based on classroom learning events, most of the techniques in this book can be adapted and used with e-learning, webinars, teleclasses, and coaching sessions.