MANAGER ENGAGEMENT: REDUCING SCRAP LEARNING

BY JOHN R. MATTOX II, PH.D.

Learning and development professionals are always looking for ways to make training more effective. But what if training is only part of the solution? This article investigates what makes training less than 100 percent effective and produces scrap learning. It also offers a solution — manager engagement — that helps sustain training's effectiveness after learners leave the classroom. Data are used to show how much managers influence performance.

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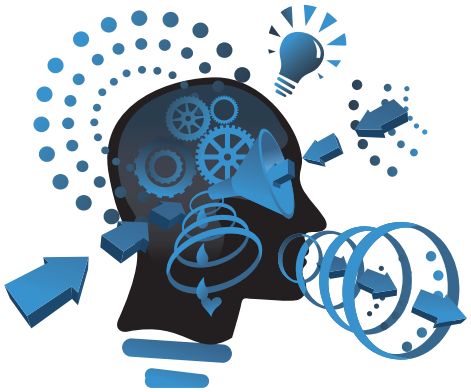


THE DECLINE IN PERFORMANCE FOLLOWING TRAINING HAS RECENTLY BEEN LABELED AS SCRAP LEARNING, THE MEASURABLE AMOUNT OF LEARNING THAT IS LOST AFTER TRAINING.

More than a century ago during the infancy of psychology, the ability to measure cognitive processes like memory was unexplored territory. Ebbinghaus (1885) began charting the mental landscape through a series of experiments on memory. He demonstrated that the longer the delay between practice and recall, the more forgetting increased. His simple yet elegant experiments produced the Ebbinghaus forgetting curve. *(See Figure 1.)*

Today, the Ebbinghaus curve plagues learning providers. Even among the best learning organizations, memory deteriorates, and the knowledge and skills acquired decay with time. Consequently, optimal performance is not achieved. To prevent this, there is an ongoing search for the seemingly impossible, the next tool that will prevent the loss of valuable knowledge and skills gained during training.

The Problem: Scrap Learning

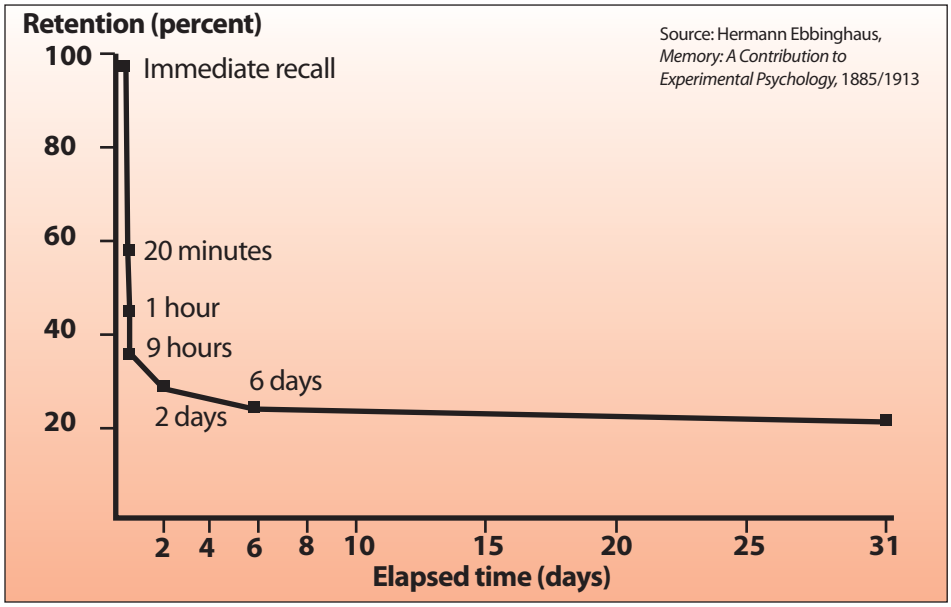
Among leading training organizations, L&D groups develop and deploy effective learning programs. Learners consume the programs and then demonstrate they gained requisite knowledge and skills by performing well on post-course evaluations (e.g., tests and surveys). Yet, managers complain that learners are not changing their on-the-job behaviors. Performance goals are missed, and the business objectives are not achieved. Why, if training is effective, are the learners not applying what they learned to the job?

The decline in performance following training has recently been labeled as scrap learning or the measurable amount of learning that is lost after training. Saks and Belcourt (2006) found that 62 percent of employees transfer training immediately afterward, and 44 percent of employees transfer training after six months. The scrap learning rates were 38 percent and 56 percent, respectively. At a KnowledgeAdvisors' symposium in Washington, D.C., Brinkerhoff (2010) shared that the scrap learning rate can be as high as 80 percent.

Baldwin & Ford (1988) indicate that the deterioration in training transfer is caused by three main factors: training design, learner characteristics and work environment characteristics. Assuming that the first factor, training design, is maximized and learners are effectively trained, the remaining two factors become the areas of interest as causes of scrap learning.

Brinkerhoff described three archetypal learners and how some of their simple characteristics lead to either effective learning or scrap. Berk (2008) summarized the three archetypes in this way:

Figure 1. The Ebbinghaus forgetting curve



WHEN LEARNERS RETURN FROM TRAINING, THEY NEED OPPORTUNITIES TO APPLY THEIR NEW KNOWLEDGE AND SKILLS. THEY NEED FEEDBACK ABOUT HOW THEY PERFORM, AND THEY NEED TO PRACTICE MANY TIMES SO THEY CAN HONE THEIR SKILLS.

- Learner 1 attends training because he is told to do so. Preparation involves knowing where to go and at what time.
- Learner 2 attends learning because she loves the experience. She will take any new training that is available.
- Learner 3 attends training when needed. He is prepped by the manager about expectations when returning to the job.

The three learners differ substantially in the attitudes they have about training. These attitudes alone can determine the amount and quality of learning that occurs during training.

Work environment characteristics also contribute to scrap learning. When learners return from training, they need opportunities to apply their new knowledge and skills. They need feedback about how they perform, and they need to practice many times so they can hone their skills. When learners do not have a chance to practice and reinforce their learning, it wanes, just like memory.

The Solution: Manager Engagement

Brinkerhoff indicates that training can be improved by managing learner characteristics and the post-training work environment. He proposes that managers (e.g., the learners' supervisors) are the lynchpin in the process.

Before attending training, managers should determine if there is an appropriate business case for training as well as prepare the learner for training by setting expectations for learning and post-training performance. In this way, the pre-training actions minimize the differences between the three archetypal learners, making all three similar to learner 3, the one who will gain the most value from training. After training, managers make training more effective by creating an environment in which the learner can apply newly acquired skills. The manager must also provide multiple opportunities and constructive feedback so the learner can build and hone skills.

Results

L&D leaders need compelling evidence about the effectiveness of manager engagement.

Resources

For readers who want more information on manager engagement, check out the following resources:

- An example of Brinkerhoff's Success Case Method with scrap learning as one of many measures:
  http://astd2007.astd.org/PDFs/Handouts%20for%20Web/SU401.pdf

- Brinkerhoff's latest book: Telling Training's Story
  http://www.bkconnection.com/ProdDetails.asp?ID=9781576751862

- State of the Industry Research: KnowledgeAdvisors' whitepaper on Manager Engagement
  http://www.knowledgeadvisors.com/media-research/white-papers/research-paper-manager-engagement/

THE INCREASE IN PERFORMANCE DUE TO MANAGER SUPPORT CAN BE AS HIGH AS 17.5 PERCENT. SAID DIFFERENTLY, MANAGER ENGAGEMENT REDUCES SCRAP LEARNING BY NEARLY 20 PERCENT.

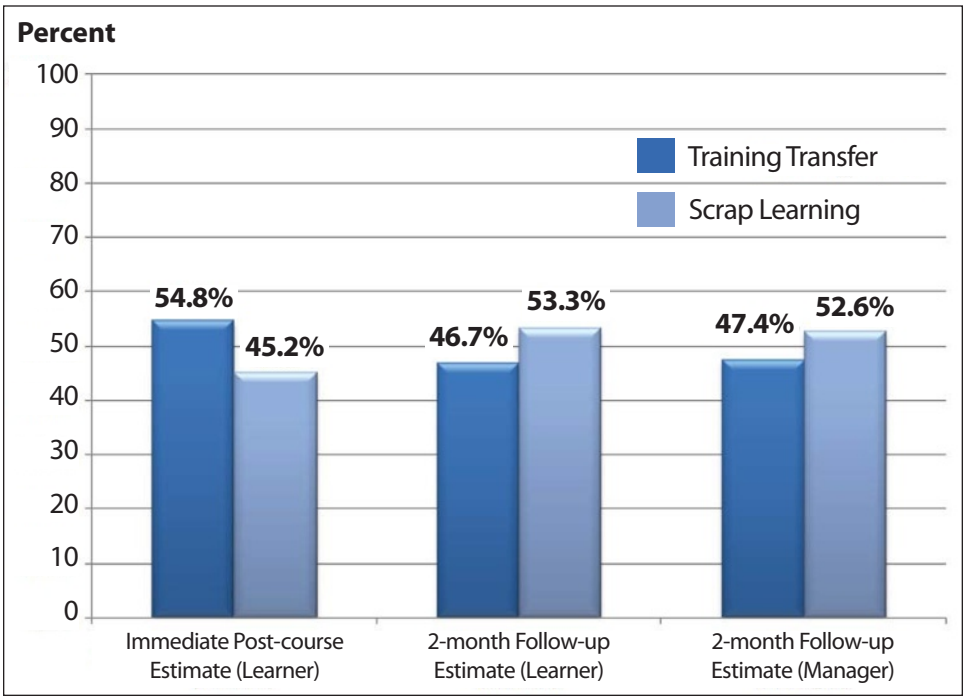
KnowledgeAdvisors recently conducted a research project to determine if manager engagement actually links to improved performance.

Training evaluations were gathered from more than 2,000 learners and were matched with follow-up survey responses and responses from their managers. The latter two evaluations were collected two months after training. A total of 72 organizations were included, and courses were a mixed bag of delivery methods: 54.3 percent self-paced Web-based; 34.3 percent instructor-led; 8.8 percent conference courses.

Figure 2 shows the percentage of training that was transferred to the job based on estimates provided by learners immediately after training and two months after training, and by managers two months after training. Results show that scrap learning is nearly 50 percent immediately after training (45.2 percent) and exceeds 50 percent at the two-month follow-up period. Managers indicate that scrap learning exceeds 50 percent.

To determine which training factors influence transfer, a correlational analysis was conducted. Table 1 shows the correlations between training transfer and four factors: criticality of training, relevance of training, value of training and manager engagement. The factors were created by averaging the scores of several related questions on the post-event evaluation.

Figure 2. Estimates of training transfer and scrap learning



Results indicate there are moderate to strong relationships among the four factors and transfer of training. All are statistically significant. While manager engagement has the weakest relationship among the four factors, it still had a moderate and meaningful connection with training transfer. Based on our estimates (by squaring the correlation), the increase in performance due to manager support can be as high as 17.5 percent. Said differently, manager engagement reduces scrap learning by nearly 20 percent. Brinkerhoff (2007) found that scrap rates were reduced by 12 percent, so the reduction reported here is within a reasonable range.

Which aspects of manager engagement are most effective? Three were measured in this study and all three are significantly and substantively related to transfer of training. They are listed below the manager engagement factor in Table 1. "Discussion after training"

Table 1. Correlations between training transfer, learning factors, and individual questions

Index	Learner Follow-up Evaluations N = 147,383	Manager Evaluations N = 1,363
Criticality	0.835	0.673
Relevance	0.590	0.604
Value	0.503	0.495
Manager engagement	0.409	0.419
After training, my manager and I discussed how I will use the learning on my job.	0.455*	0.421**
My manager and I set expectations for this learning prior to attending this training.	0.438*	0.395**
I was provided adequate resources (time, money, equipment) to successfully apply this training on my job.	0.395*	0.297**
	* N = 93,806;	** N = 1,286

is most strongly related to transfer, followed by "expectation setting before training" and finally "providing resources after training." This pattern holds true for both learners and managers.

So manager engagement is a viable solution, and the message is clear: Support both before and after training is a powerful lever that increases the effectiveness of training and diminishes scrap learning.

While the solution does not change the way training is developed or deployed, it is clearly linked to the learning process. The first step for L&D is to recognize that learning does not occur as singular event in a vacuum. Learner attributes and learning conditions before and after training influence learning and eventual performance, both of which can be shaped by manager engagement.

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Takeaways

Here are some key learning points for readers:

- Knowledge and skills obtained during training decline after training; Brinkerhoff calls the loss scrap learning.
- Three factors influence the transfer of training from the classroom to the job: training design, learner characteristics, and work environment characteristics.
- Manager engagement has no impact on training design, but it can substantially influence learner attitudes prior to training and the work environment after training.
- Research conducted by KnowledgeAdvisors indicates that scrap learning can be reduced by nearly 20 percent through manager engagement.