Solving Learning Decay
in Organizational Training and Development

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INTRODUCTION

How much do you remember about the last news article you read? According to research performed by German psychologist Hermann Ebbinghaus in the late 1800s, the answer will depend on when you read it. The more time that has elapsed between the point you acquired the information in the article and now, the more you will have forgotten. This concept is now commonly referred to as the "learning decay curve" and it applies to all types of educational initiatives, including training programs employed by organizations. If you don't address the learning decay curve and don't take measures to counteract it, your organizational training efforts will diminish in value.

Learning decay is like gravity; it is a downward force against which you must exert effort if you want to create sustained learning impact. The learning decay curve is also exponential; you quickly forget information in the minutes and hours after you acquired the information, and then the rate of decay slows down. Further research building on Ebbinghaus' work shows that 70 percent of the information that individuals learn in a classroom will be forgotten within the first week.[1] After a month, that number can grow to 90 percent. If you view organizational training as a long-term investment, you probably want to reap a return that's higher than just 10 percent. The good news is, much like you can fight gravity with jet engines and aerodynamics, you can fight the learning decay curve with practice and reinforcement.

Ebbinghaus *in* 1885

Proved the exponential nature of forgetting

$$R = e^{-\frac{t}{s}}$$

R=Memory retention
t=time
s=relative strength of memory

Not much has changed since 1885!

PERFORMANCE

SCRAP LEARNING RATE

One Week Post Training
70% Retention Loss

30 Days Post Training
90% Retention Loss

TIME

ROI
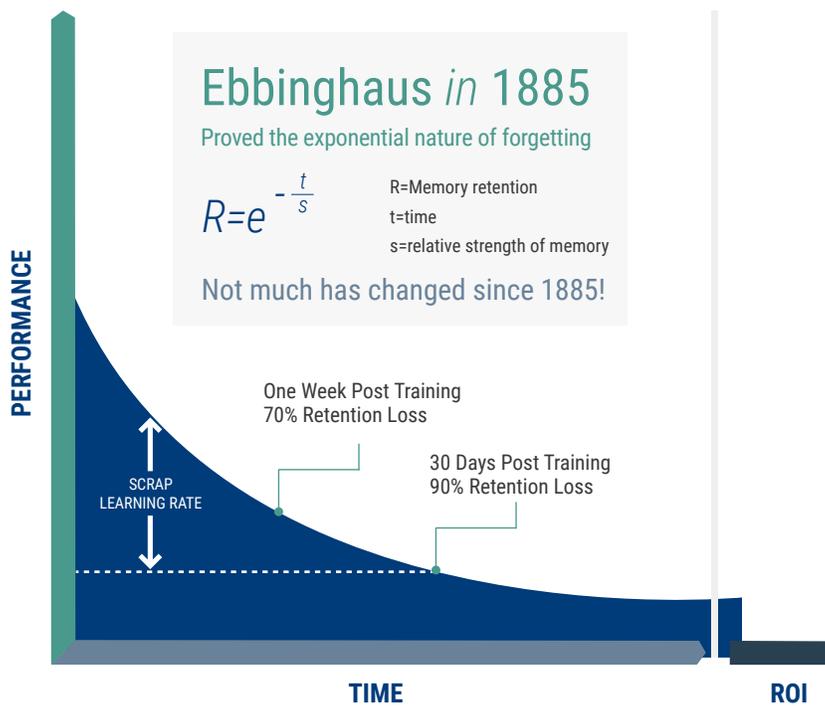
LEARNING DECAY IS LIKE GRAVITY
it's a natural downward force on learning performance

70% of your content will be forgotten by your learners one week after the training event

70% of your organization's investment **is at risk**

This guide explores learning decay and how it influences why some training initiatives succeed, why others fail, and what makes training truly impactful, especially in the long term.

1. Kohn, A. (2014). Brain Science: Overcoming the Forgetting Curve. Learning Solutions Magazine, April 10
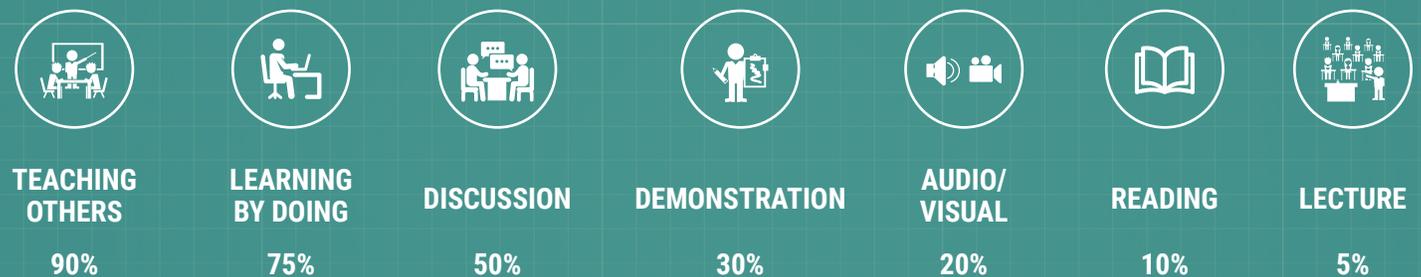
3 KEY ELEMENTS TO SOLVING LEARNING DECAY

People become experts in their chosen fields by combining quality learning experiences with practical application and a commitment to ongoing study. Think about the career paths of scientists. They start by acquiring an educational foundation in college, gain more specific knowledge and hands-on experience in graduate school, and continue to grow their expertise by applying their skills in the real world, reading relevant literature, engaging with their peers, and continually striving to add to their knowledge base. Organizations can apply the same principles to get the most from their organizational development initiatives.

1. The Learning Experience

Sustainable long-term learning must begin with a quality training event. A high-quality, relevant learning experience enables participants to embrace the new information and be motivated about integrating it into daily practice. On the other hand, a poor-quality session will leave them without a foundation on which to build. No matter how much effort you put into your ongoing retention strategy, you can't expect people to change their behavior if they don't acquire the necessary skills in the first place.

Several types of methods can be employed to teach new skills and transfer information:

TEACHING OTHERS	LEARNING BY DOING	DISCUSSION	DEMONSTRATION	AUDIO/ VISUAL	READING	LECTURE
90%	75%	50%	30%	20%	10%	5%

Research by the National Training Laboratories has shown that the amount of information retained over time for each of these methods is different and decreases from top to bottom,[2] with teaching others being the technique that delivers the highest retention rate and lecture being the lowest. Because individuals learn best with different methods, it's wise to use a combination of approaches. However, because learning by doing, also known as "experiential learning," is high on the list, it makes sense to employ this approach to organizational training as much as possible.

2. Burge, Joan. "Your Case for Training: Adult Learning Retention Statistics." Office Dynamics 25 March 2015. Web. 20 April 2016.

One of the reasons that experiential learning is so effective is that it has four important components. Behavior change requires heart, head, hands and harvest; all of which are components of an experiential learning event.

1. Conviction (Heart)

The first step is to demonstrate why a new skill must be acquired so that participants are motivated to learn. For example, if the training objective is to improve teamwork, a first step might be to have the group work on a challenging task with typically less than stellar results. Individuals always want to succeed, so if they know that the information they will get from the training session will help them perform better, they will stay focused and motivated.

2. Knowledge (Head)

After acquiring conviction, individuals are more receptive to knowledge being provided. In the case of teamwork improvement, the knowledge might consist of techniques for setting goals, communicating better, and effectively sharing resources.

3. Skill (Hands)

Sharing knowledge is not enough; individuals must also know how to use it in order to optimize success. Experiential learning allows participants to test their new knowledge in a safe environment, and to see how it impacts their performance. After repeatedly applying their new knowledge in order to complete the task, the team members will see dramatic improvement over time as they hone their skills.

4. Results (Harvest)

After going through an experience that instills conviction, effectively delivers new knowledge, and allows participants to practice their newly acquired skills, it is important to demonstrate how it is applied in the workplace. Debriefing after the training and connecting the new skills to real-world examples will provide context for how participants can improve teamwork on the job.

After this kind of learning session, participants will be excited to apply their new skills. However, this is only the beginning! You must not forget about how learning decay still applies. After just a few days, they will have retained less than half of the information they learned, unless you have a retention strategy.

2. Reinforcement and Measurement

Even the best learning experience will eventually land near the bottom of the learning decay curve if steps are not taken to reinforce and measure the transfer of knowledge to the job. The success of any training program depends on not just learning new information, but also whether or not the new knowledge is applied in the real world.

After any learning experience, it is critical to create an environment that continually reinforces application. If individuals return from training and do not have the opportunity to practice their new skills, and have them reinforced, the learning decay curve kicks in, and the knowledge becomes "flavor of the month". Create an environment that supports the application of learning by:

1. Ensuring the expectation to apply the new learning is clear, actionable and effectively communicated.

2. Requiring new behaviors be used on the job consistently.

3. Ensuring leaders and managers are equipped and skilled to effectively model, coach and require.

4. Providing a safe environment to practice, apply and get feedback.

5. Giving feedback that is developmentally focused, not performance managed.

6. Allowing adequate time for the behaviors to take root. New behaviors take six months of practice, application and feedback.

7. Using technology to stay connected with your learners.

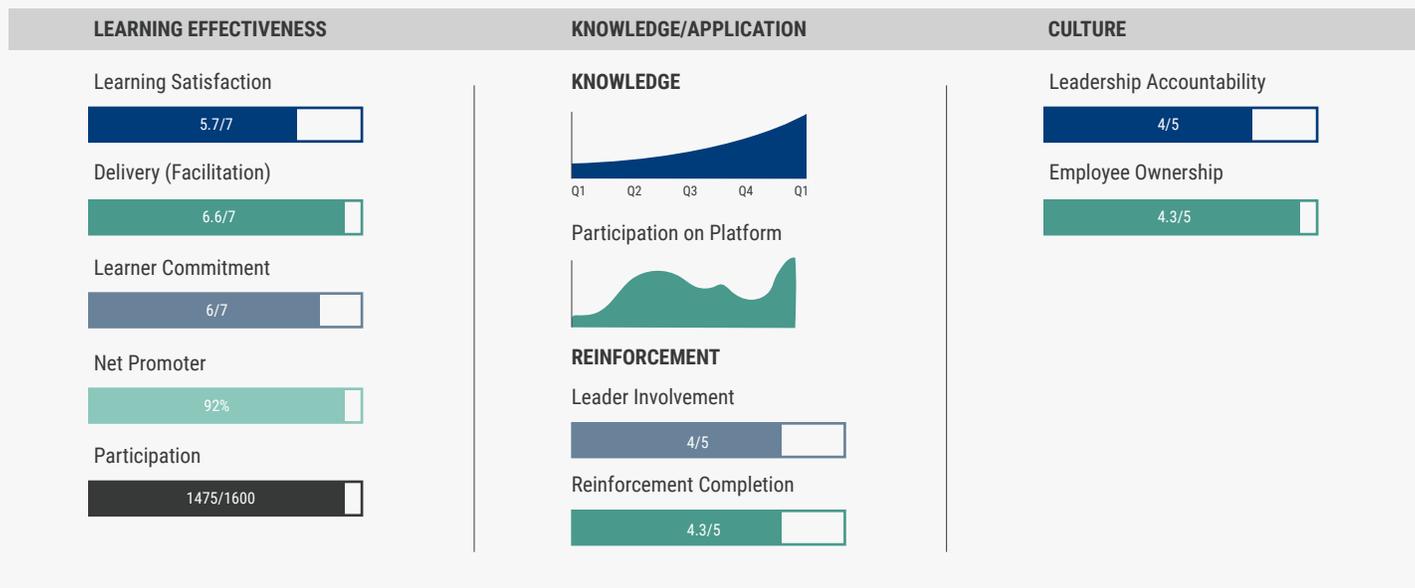**8.** Celebrating successes and rewarding effort to sustain momentum.

It is important to do this not just immediately following the training event, but sustained over time after training. Reinforcement requires addressing barriers to application, creating a supportive environment, and setting up systems to encourage the application of new knowledge and skills.

In addition to reinforcement, it is also essential to develop measurement systems for the outcomes you want to achieve. These will vary depending on your organization's goals. Start by clearly defining the desired results and then "reverse engineer" the behaviors that will deliver that result. For instance, organizational training to improve sales is easily measured by sales growth. On the other hand, measuring the impact of some training initiatives requires identifying and monitoring metrics that are not so straightforward.

METRIC	VALUE
Business Impact Metrics	Leading, lagging and KPI metrics alongside learning metrics, and business impact metrics, keep the organization focused on outcome.
Culture	A strong and supportive environment is necessary to achieve business impact.
Behavior	A predictive indicator of business impact, and clear communication of expectations.
Application	Measuring application ensures connectedness to the learner and is a mechanism to drive both learner and leader accountability.
Knowledge	Measuring knowledge increases retention and reinforces a common language.
Effectiveness	Often overlooked, the degree to which the training has the potential to positively impact the business.

Sample Training Impact Scorecard

A training impact scorecard is a means of communicating the value of the training and development, or a means to assess the organization's overall learning effort as it relates to a particular strategy. The scorecards can be fully customized to the initiative and provides a regular look at key metrics necessary to ensure success.

LEARNING EFFECTIVENESS	KNOWLEDGE/APPLICATION	CULTURE
Learning Satisfaction 5.7/7	**KNOWLEDGE**	**Leadership Accountability** 4/5
Delivery (Facilitation) 6.6/7	Q1 Q2 Q3 Q4 Q1	**Employee Ownership** 4.3/5
Learner Commitment 6/7	**Participation on Platform**	
Net Promoter 92%	**REINFORCEMENT**	
Participation 1475/1600	**Leader Involvement** 4/5	
	Reinforcement Completion 4.3/5	

When new knowledge is reinforced, and individuals can see the measurable results of their efforts, they are more inclined to continue applying new skills. On the other hand, if a training event occurs in a vacuum, and they have no support or clear expectations, the new knowledge will be quickly lost, and neither the individual nor the organization will benefit to the intended degree.

3. Organizational Commitment

So why are some learning solutions destined to become "flavor of the month", while others deliver the promised outcome? It comes down to the level of commitment the organization is prepared to make to driving true behavior change. Delivering on a promised outcome has less to do with the particular vendor and more to do with the organization's support after the program. On the learner's journey the commitment of the organization can show up in three different ways.

Low ROI

Uninvolved Managers - Managers are not skilled, adequately resourced or required to support the ongoing behavior change.

Mid ROI

Supportive Managers - Managers are encouraged to support the learning and do so by being opportunistic. This level of commitment usually end up with pockets of high performance, predominantly by the perceived high perfromers in the organization.

Maximized ROI

Committed Managers - Specific, relevant personalized training exists for the managers who are seen to be in their roles to deliver the outcome through effective leadership. All facets of the organization are demonstrating the priority of the initiative. Results are visible, gaps openly discussed and addressed, measurement and reinforcement prevails, and there is a strong focus on achieving the outcome.

TRADITIONAL ORGANIZATIONAL TRAINING DOESN'T SOLVE LEARNING DECAY

Traditional classroom training that uses methods such as lecture, reading, and demonstration might be effective for imparting knowledge, but they do not address learning decay. This is because there is limited focus on building conviction, testing new skills, or real-world application.

Lack of Personal Buy-In

When participants don't believe that the training will make a difference in their daily work, they are not inclined to fully engage. If they feel that they are just logging the required continuing education hours or attending training so that they can check off an item on a list, they have no reason to actively participate. Combatting the learning curve requires a desire to make lasting change. If individuals don't have the personal conviction to do this, your organizational training initiatives will fall flat. On the other hand, if participants believe that the time they spend at the training will have a positive impact on their work and allow them to be more successful, they will stay engaged and be motivated to learn and apply new skills.

Knowledge Without Practice

Passively acquiring knowledge by listening to a lecture or watching a video does not allow the participant to get the hands-on experience necessary for truly learning a new skill. Even when individuals embrace the new concepts and are enthusiastic about applying them, the learning decay curve tells you that the vast majority of the information they learned will be forgotten in a matter of days. Traditional learning can appear deceptive, because it is possible to have seemingly good results at the end of a training. A final quiz that everybody passes with flying colors will tell you that the class has indeed learned something new; but how will they do on that quiz after a week or a month? More importantly, will they be able to successfully apply their new knowledge to real-life situations in the workplace? If you don't give them an opportunity to practice their new skills in a safe space, the answer is probably no.

No Connection After Learning

Traditional classroom learning often occurs in a vacuum. Individuals spend a day or two in a room absorbing information and then return to their normal routine with limited way to connect their new skills to their jobs. A few coworkers might ask how the training went, but if there is no formal connection made between the training and the real world, the retention rate rapidly declines, and the knowledge is not sustained. This is not only wasteful for the organization, but also frustrating for individuals who are enthusiastic immediately after a training. If you have ever heard "the training was great, but then nothing changed" you know that there is no connection after learning. Remember, the main objective of organizational training is to get results. If you are investing in traditional learning and not seeing the desired results, it might be time to rethink your approach.

SOLVE LEARNING DECAY WITH EXPERIENTIAL LEARNING

We have identified the three key elements to solving learning decay as:

1. The learning experience
2. Reinforcement and measurement
3. Organizational commitment

Each of these components is essential for improving retention rates, but it all starts with the learning experience. Learning by doing has been identified as one of the most effective ways to gain new knowledge, and it also helps combat learning decay. Remember the four cornerstones of experiential learning that were described above: conviction, knowledge, skill, and results. Three of these elements—conviction, skills and results—stand out in comparison to traditional learning, and it is precisely these components that will help you address learning decay.

Experiential learning does this by:

Capturing the hearts and minds of participants
Personal conviction ensures that what was learned in training is carried out once on the job.

Connecting new skills to the real world
Experiential learning provides a safe space in which to test new skills and a good basis for using reinforcement to increase retention of knowledge.

Demonstrating the consequences of applying new skills
During experiential training, participants experience the consequences of subpar behaviors and the benefits of high-performance behaviors.

Experiential learning can be employed to teach a broad range of skills that will benefit your organization, including:

- Process improvement
- Customer service
- Teamwork
- Effective presentations
- Project management
- Leading meetings
- Delegation
- Supervisory training
- Time management
- Performance management

When combined with a solid retention strategy that includes reinforcement and measurement, experiential learning can help you overcome the learning decay curve. Without it, you will not achieve the best return on your investment, and your organizational training program will not reach its maximum potential.

CONCLUSION

If your organization is committed to implementing and maintaining an effective training program, it must be supported by a great session, retention, measurement strategies and organizational commitment. Without these important elements, the learning decay curve will inevitably take over and put your investment at risk.

The good news is, you don't have to do it all alone. With decades of organizational training experience under our belts, we know how important it is to follow up with a solid measurement and retention strategy. Our post training reinforcement keeps the classroom learning top of mind and increases on-the-job application. Eagle's Flight has a robust suite of tools and expertise in measurement and reinforcement to address learning decay, and ensure that participants benefit fully from the learning investment.

CONTACT EAGLE'S FLIGHT TODAY

TO LEARN MORE ABOUT MEASUREMENT AND REINFORCEMENT TECHNIQUES AND TOOLS TO SUPPORT YOUR ORGANIZATIONAL TRAINING PROGRAM.

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CHANGING BEHAVIOR TO IMPROVE PERFORMANCE