



# THE BIZ LIBRARY

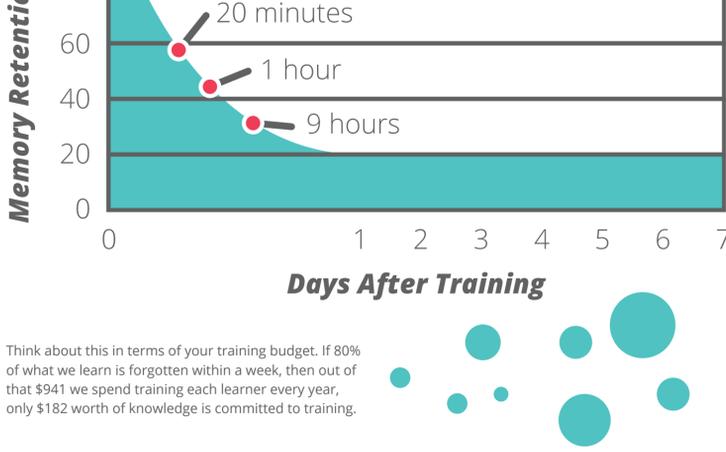
## SCIENCE OF EMPLOYEE TRAINING:

### Learning Reinforcement

According to the most up-to-date research we can find, organizations that have between 1,000-9,999 employees spend \$941 per employee per year on training.

Among the factors that reduce the effectiveness of your training program is a psychological phenomenon, first theorized and proven by German scientist Hermann Ebbinghaus, called the forgetting curve.

The forgetting curve proves that there exists an inverse relationship between the amount of knowledge we retain, and time. In other words, unless we interfere with the learning process, our memory about a given subject will degrade over time.



Think about this in terms of your training budget. If 80% of what we learn is forgotten within a week, then out of that \$941 we spend training each learner every year, only \$182 worth of knowledge is committed to training.

# LEARN

**80%** Of what we learn is forgotten in a week

## HOW

Will you handle the forgetting curve?

**Do Nothing**  
Not recommended by BizLibrary

**Intervene**  
Overcome the forgetting curve

Do nothing, and allow the forgetting curve to reduce the effectiveness of your training program, and waste your training budget, reducing the ROI of your training program.

Overcoming the forgetting curve is possible, and a strategy should be in place during your training process to ensure that you are reinforcing learning as much as possible.

The forgetting curve is accepted science, but there are methods of intervention that effectively overcome it. Studies have shown that effective intervention can overcome the forgetting curve, and for the rest of this infographic, we'll be looking at those studies and extrapolating relevant information.



A professor at Washington University in St. Louis named Dr. Henry Roediger conducted some research into memory retention, and came to some pretty convincing conclusions.

## EXPERIMENT #1

Dr. Roediger created three groups, and showed them a series of random photographs.

This group was allowed to study the photographs after viewing them.

This group was asked to write down as many photographs as they could after viewing them.

This group was quizzed three times over what they had learned.



**STUDY**  
**17.4**  
**Photos recalled**

**WRITE**  
**23.3**  
**Photos recalled**

**QUIZ**  
**31.8**  
**Photos recalled**

In a single experiment, Dr. Roediger began to provide important insights into overcoming the forgetting curve.

**Videos in The BizLibrary Collection feature a quiz at the end for this very reason: testing is the most effective, and most efficient way to improve learner retention.**

Since the forgetting curve occurs over time, time is the trigger event that causes us to forget. So, if testing increases retention, would testing over time overcome the forgetting curve even more effectively?

Dr. Roediger partnered with Dr. Jeffrey Karpicke and conducted a new experiment.

Once again, three groups of students looked at photographs.

Five minutes after seeing the photographs for the first time, each group was allowed to study the photographs before being tested.

## EXPERIMENT #2



**SSSS**

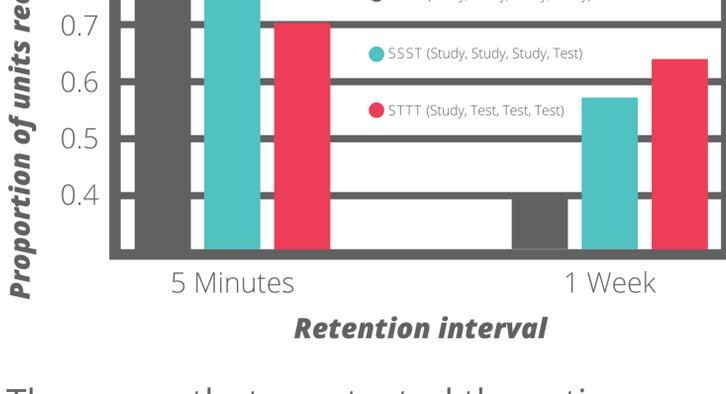
**SSST**

**STTT**

This group was allowed to study the photographs four times after viewing.

This group was allowed to study the photographs three times and then took one test after viewing.

This group was allowed to study the photographs once and then took three tests after viewing.



The group that was tested three times **only forgot about 10%** of what they remembered **after 7 days**, beating the forgetting curve by a significant amount!

## IMPROVE RETENTION IN YOUR PROGRAM

Training is a process, and not an event. A good training program has a strategy to tie training to business goals, effective training in place, a process to evaluate the effectiveness of training, and a strategy in place to improve retention.

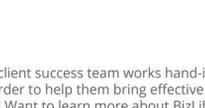
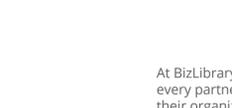
Tests are a great place to start – testing over time is a proven way to increase retention and overcome the forgetting curve.

Additionally, BizLibrary offers an effective tool called **BoosterLearn** that sends boosts – **small, varied tests** that follow the completion of a microlearning course.

[LEARN MORE](#)

Increasing learning retention is one of the most effective ways to **improve your training program**. With a process-driven, strategic approach to retention, you can **increase your ROI** and create change in your organization. Want to **learn more** about learning retention and strategic training?

**Check out these other free resources!**



At BizLibrary, our client success team works hand-in-hand with every partner in order to help them bring effective training to their organization! Want to learn more about BizLibrary?

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