



# **BOOSTING** LEARNING RETENTION

A STEP-BY-STEP GUIDE TO TRAINING REINFORCEMENT PROGRAMS

# BOOST THEORY

The basic concept behind post-training reinforcement is that memory involves the retrieval of information as much as it does the storage. Practicing retrieval after training makes the brain more likely to remember information in the future. There is a "use it or lose it" aspect to memory storage— if the information is not recalled in the days and weeks following training, the brain may see the information as irrelevant and discard it from memory.

## BOOST TERMINOLOGY

**Boost** - A boost is one specific reinforcement opportunity for the learner in the days and weeks following training. [The BoosterLearn tool](#) delivers boosts through email and can take the form of quiz questions or other interactions.

**Program** - A booster program is a scheduled set of boosts for a specific training lesson or event. The timing is based on the number of days the boost should be sent from the launch point (day 1).



## TIMING **BOOSTER** PROGRAMS

*How many boosts should I send, and when should I send them?*

The number of boosts really depends on several factors: How long is the training? How complex is the training? In terms of complexity, consider both how mentally challenging the material is, and how many major learning points are contained therein. How is the training delivered? What other training demands is your typical learner also operating under?


For a short five to 10 minute video, four to six questions are likely to strike a good balance between hitting the major points without overwhelming the learner or becoming redundant. However, if your typical student is going to watch quite a few lessons at a time, then perhaps you should lean more toward four boosts per lesson rather than six. Otherwise, you run the risk of your learner getting tired of the mass of boosts they must wade through when they come to work in the morning.

In terms of timing, there is a recommended arc to the reinforcement program:

**AT THE BEGINNING** of the program you want to recall the basic concepts or the overall message of the training. We can call these recognition or recall questions-- polls and multiple choice questions are great for this.

**IN THE MIDDLE** of the program, questions should become more difficult. "Generative" type questions demand more of the learner to encourage effortful recall. Fill-in-the-blank questions and more difficult multiple choice questions are perfect here. With great writing, you can start to ask the student to identify or use tools from the lesson to solve hypothetical or real problems.

**TOWARD THE END** of the program, we really want to start making the learner think about the concepts in the context of their own workplace (or other typical applications, in the case of other training). Contextual or situation framing should be your guide for these. Thought questions are one of your most powerful tools at this stage, because with some decent prompt writing you can ask the learner to describe how a concept from the lesson will help them be more effective in specific situations or in their overall work life. A helpful term for these is "behavioral" questions, since these should focus on specific actions and behaviors that will lead to positive results.

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Let's look at the template for booster programs for BizLibrary Productions video lessons, which are typically between five and 10 minutes long.

**Boost cadence for BizLibrary Productions standard video lesson:**

**Day 2** : Poll Question

**Day 7** : Multiple Choice Question

**Day 14** : Fill-in-the-Blank Question

**Day 30** : Thought Question

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The poll, sent **the day after** the lesson is viewed, can be used to gauge learners' reactions to the training or to the concepts being taught. It can also be used to poll for the learner's own experiences or opinions.

**A few days later**, the student will receive a multiple choice question that will ask them to identify the correct terms or concept from a list of options. This shouldn't be too hard, but also shouldn't be obvious to someone who has not undergone this or similar training.

**A week after training**, the learner will be sent a fill-in-the-blank question. These are more difficult, and the conscientious student will think hard to make sure they have the correct piece of terminology.

**Two weeks after training**, the student will receive a thought question that will require them to put a concept in their own words, and hopefully reveal how the lesson has improved their skill set in a specific way.

## Scheduling Longer Programs

As a contrast, let's look at the template for a BizLibrary Productions video course, which will typically contain between three and 12 video lessons.

### Boost cadence for BizLibrary Productions video course:

**Day 2** : Poll

**Day 4** : Multiple Choice

**Day 8** : Fill-in-the-Blank

**Day 14** : Multiple Choice

**Day 23** : Thought Question

**Day 34** : Multiple Choice

**Day 46** : Thought Question

**Day 60** : Poll

You'll notice that there is a poll at the beginning and end of the program. The first poll can be used either to gauge reaction to the training, or to establish a baseline with which the learner can compare their expanded skill set: "Before taking this training, how strong were your coaching skills?" We may then conclude this program with a question that attempts to gauge progress: "Now that you've undergone this training, how confident are you in your coaching skills going forward?"

There's an easy way to remember how to schedule longer booster programs: 2-2-2. Recognition or reaction boosts should be sent in the first two days after training, generative questions within two weeks, and behavioral questions within two months after training. The time between questions should increase as the program goes on. This is due to the principle of **spaced repetition**, which has shown that longer reinforcement programs with increasing intervals between interactions are more effective than dense, front-loaded reinforcement experiences. Thus, by the end of a 60-day program there might be 10 or more days between boosts.

## What do I boost? What do I skip?

One concept to understand when deciding where to place your focus is called **spreading activation**. This refers to a halo effect when reinforcing one specific piece of information improves recall with other related information originally learned at the same time. As a rough example, if you're boosting a lesson on very basic arithmetic covering multiplication, division, addition, and subtraction, there might not be much point in writing several boosts on the times table for different numbers even if your lesson spends significant time on them. Instead, writing one boost on 3x9 will likely suffice to reinforce memory of multiplication, broadly, and you can better spend your and your learner's time moving on to a boost on division. That is all to say: hit the core concepts, the big points, and key vocabulary, but don't feel obligated to boost every moderately important piece of information.

## Major Reinforcement Boost Types

The most-used boost types are multiple choice and fill-in-the-blank quiz questions, polls, and thought questions, or short answer response prompts.

*Polls are best used to ask the learner's opinion or to gather information about the learner's experience.* They are meant to be "social" experiences; seeing data from other learners will give the learner food for thought. Avoid writing polls that lead the average learner toward one response, or imply that there is a correct or incorrect answer.

*Multiple choice questions should be used to reinforce basic or more complex ideas,* and if possible draw a connection to the learner and the learner's workplace. When writing these, it's important to make sure the distractors are good- a multiple choice question should neither be too difficult nor too easy. The relevant concept here is the principle of **effortful recall**, which generally says that if a quiz question is too simple, the reinforcing effect is weaker.

*Fill-in-the-blank questions are best used to reinforce a key piece of vocabulary.* Be careful using this question type when you're not looking for a specific word or phrase; it will be very frustrating to the learner if they understood the core concept but input a synonym for the word you wanted, and so were told they were not correct.

*Thought questions have the capacity to demand a complex original response from the learner,* depending on the goals of the training and the writing skills of the designer. At the most simple, you can use a thought question to ask the learner to explain a concept in his or her own words. More complex constructions will ask the learner to discuss how they will use the concept in their work life, or how the new knowledge will guide behavior change and lead to increased effectiveness. You might also use a thought question to share tips and best practices, to ask the learner for specific technical information that doesn't work for the shorter quiz types, or to provide feedback on the training or the follow-up experience.

When writing thought question prompts, remember that you can choose to have responses be visible to other learners, or private. This will perhaps inspire different uses—for instance, you might have a private thought question prompt that asks for feedback on the training, while a question asking for ideas on how to deal with a common customer issue should be publicly viewable so that all may benefit.



## Writing Boosts

*The tone and language of your boosts should be dependent on the content and audience of the lessons.* Since BizLibrary boosts will be seen by many different organizations, we strive for appropriate formality while still using engaging, friendly, conversational language. A casual tone may help engage some viewers, but we avoid language that is too informal, as well as colloquial language that may confuse viewers without a strong grasp of American English.

*Boost length may vary, but by design they should each be a brief experience.* Question prompts and introductory text should be short enough to be clear but long enough to adequately frame the core concept. In general, a multiple choice or fill-in-the-blank prompt should be one or two sentences; some concepts or framing will lend themselves to longer or more complex prompts.

*Contextual/Situational questions are a writing or framing style rather than a specific type of boost.* Situational questions attempt to quiz the learner about a central concept of the lesson while also evoking the learner's workplace context. While some material is less suited for this type of framing, [BizLibrary Productions \(BLP\)](#) and [BizLibrary Collection \(BLC\)](#) boosts strive for at least one in three Multiple Choice questions to use this situational style, with an increased frequency whenever possible. You can also use the same principle to frame fill-in-the-blank and thought question prompts.

Without context, a question might look like this:  
"A(n) \_\_\_\_\_ statement is a conversational device that you can use to let the speaker know that you're focused on their concerns."

**Positive**  
**Controlled**  
**Empathy**  
**Agreement**

With contextual framing, we can make the learner imagine their workplace and other pieces of context from their work life. This will allow them to recognize applicable situations where they might use this knowledge in the future.

Remember, the ultimate goal is behavior change! Here's how the above question might be framed:

"Imagine someone in your office is upset about a conversation they had earlier in the day and they've come to you for resolution. A great way to make sure that you're listening to what they've said and that they know it, is by using a(n) \_\_\_\_\_."

**Positive Statement**  
**Empathy Statement**  
**Controlled Statement**  
**Agreement Statement**

## Writing Feedback

Writing good feedback is a key skill for the best booster programs. Whether the student gets the question correct or incorrect, there should be one more interaction to guide them, make them feel taken care of, and perhaps to provide new framing or additional information.

Here's what we don't want, because it is generic, abrupt, and impersonal:

*"That's incorrect."*

This is better—at least it's a few complete sentences, it provides the correct answer, and it is framed civilly:

*"Sorry, that's not correct. The correct answer was 'brainstorming.'"*

This is better still, because it is polite, provides the correct answer, and reframes the concept to aid memory.

*"Sorry, that's not quite correct. The answer is 'brainstorming.' Remember, many problems have more than one possible solution, so it's important to explore several options before making a decision."*

And here's one last tool you might use from time to time:

*"Sorry, that's not quite correct—'brainstorming' helps us come up with several possible solutions to our problems. Check out this article for some great brainstorming tips: <http://www.fastcompany.com/63818/seven-secrets-good-brainstorming>"*

## Do you remember these concepts?

What is reinforcement training?

Can you describe spreading activation (the halo effect)?

What does spaced repetition mean?

What are the seven boost types used in BoosterLearn?

What are the characteristics of recall, generative, and behavioral boosts?

What is contextual/situational framing?



## Bonus: What is a burst?

Burst training refers to short pieces of core content delivery, such as four to seven minute video lessons, that deliver the specific information the learner needs in a format designed to keep the learner's attention. Burst training is designed as an alternative to bloated, long-form online training content that fails to engage and can be filled with extraneous, redundant, or distracting information.

## Bonus: What is interactive video?

The point of interactive video is to provide immediate reinforcement of the material by quizzing (forcing recall of the material) or by presenting new information (which the learner will associate with the core content) at points during the viewing of the video lesson. These interactions punctuating the video lesson serve to keep the learner engaged both because they feel that they are getting a more tailored experience, and because they anticipate immediate evaluation on the content.

At a higher level of production quality, and specifically one that takes into account the interactive tools while writing and filming the lesson, these interactions can be entwined with the content and viewing experience. For instance, the presenter may ask an opinion of the viewer, then a poll interactive could pop up, allow the user to answer then see other learners' responses, and then the presenter could continue the lesson, adding his/her own input or information to the lesson. Or, the presenter could introduce a supplemental link or challenge, the video interactive pops up, then the presenter could make a friendly remark on the resource—the point is both to provide good content and to foster engagement by building a connection between the presenter and the viewer.

BizLibrary's BoosterLearn platform provides a simple and streamlined process for creating, scheduling, and tracking follow-up to training. Our one-of-a-kind technology makes it easy for organizations to increase learning retention and see better application of training on the job.

If you'd like a custom consultation for how BoosterLearn can help improve your training results, click the button below to schedule a demo with one of our learning experts!

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