

NATIONAL ASSOCIATION OF
Community Health Centers

SCENARIO-BASED LEARNING

A Guide to Creating
Dynamic Instruction

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Everything is practice.

-Pelé



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In this lesson, you will:

*Review the basic principles
of scenario-based learning*

*Create activities that allow
users to practice skills*

*Adopt a mentoring role in
your learning events*

Learning

The Problem with Presentations

In your mind's eye, imagine a webinar: the slide deck unfolds as a series of bullet points or even truncated paragraphs, the presenter repeats the points made in the text and adds a few flourishes. You watch the presentation unfold as if you are watching a parade. Maybe you scribble down a few takeaways (quickly forgotten) or promise yourself that you'll review the slides later.

From a learning standpoint, this method of delivery is a problem. It is a passive learning experience, with no opportunity to practice. Such presentations are plagued by a lack of focus. At best they inform audience members that they should do something, but very seldom address how that something can be done..

Elements of Active Learning

Here' are the goals for active learning:

- Create opportunities for practice
- Organize content into effective bite-sized pieces
- Address real-world problems in a simulated environment
- Create situations in which learners can transform how they address problems
- Reshape the role of the "expert" to embody mentorin and coaching

Assumptions about Learning

In theory, there is no difference between theory and practice. In practice there is.

—Yogi Berra

There are many theories of training, but few universal laws. There are also many half-baked assumptions about what works and what doesn't. But in recent years, scholars have substantiated what seems like self-evident truths that have been nearly universally ignored, often centering around **practice**.

- Effective practice involves application rather than recall.
- Best practices should be modeled (as "worked examples").
- Training should be aware of "cognitive load" and "chunk" content into small pieces for delivery.
- Feedback should be detailed and focused on a specific task.

Scenario-Based Learning

Scenario-based learning is a method of instruction that relies on scenarios that present a problem to be solved. Learners assume a particular job role and work toward analyzing the situation and offering ways to resolve the issue. The emphasis is on **complex decision-making and critical judgment**, not on practicing a task with pre-determined steps. It's based on principles, not procedures. Such learning necessarily transforms the role of the presenter—rather than explaining concepts or providing an overview of a topic, the presenter sets up a problem, allows the learners to apply their skills, and then provides feedback. In this model, the learning is experiential, with an opportunity to fail built in. Even in a failed attempt, knowledge is actively applied and refined through the feedback process.

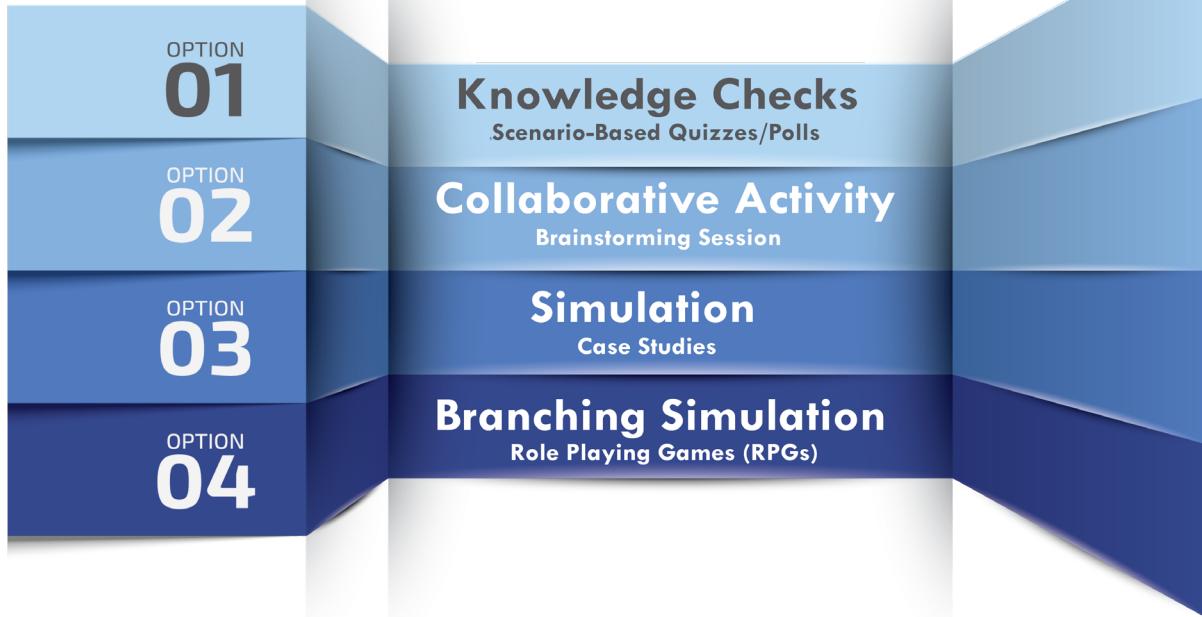
For a detailed discussion of scenario-based learning, see Ruth Clark's Evidence-Based Training Methods, 2nd Edition: A Guide for Training Professionals, ATD Press, 2014.



Advantages

For learners, a problem-based model moves away from a passive learning experience—listening to a lecture—to the active application of principles. To be most effective, scenario-based learning presupposes prior knowledge and experience that can be activated in training, allowing them to assimilate new ideas more readily. Adult learners in particular profit from this model. The orientation to learning is also very pragmatic, grounded in the workplace, providing a powerful incentive to learn. Finally, more active participation and collaboration among learners strengthens the community and provides ways to access members' knowledge and experience.

TYPES OF SCENARIO-BASED LEARNING



Scenario-based learning encompasses a wide range of activities and formats. At the less complex range of the spectrum, you will find knowledge checks that are problem-based. They may have correct answers, such as the math problems of your youth, or they may be exploratory, with no clearly right or wrong response. At the high end, you have role-playing games (RPGs) that use the basic mechanisms of scenario-based learning to build entire worlds.

Many presentations are plagued by a lack of focus. They rely on a general topic to define the nature of the session, without clearly identifying specific skills to develop. So presenters freely roam the territory. Now this can be interesting in itself, but it doesn't really allow participants to draw on their own knowledge or practice their skills.

The first task when designing any learning activity is solidifying your objectives. Our first tool in building out scenario-based learning will be Bloom's taxonomy.

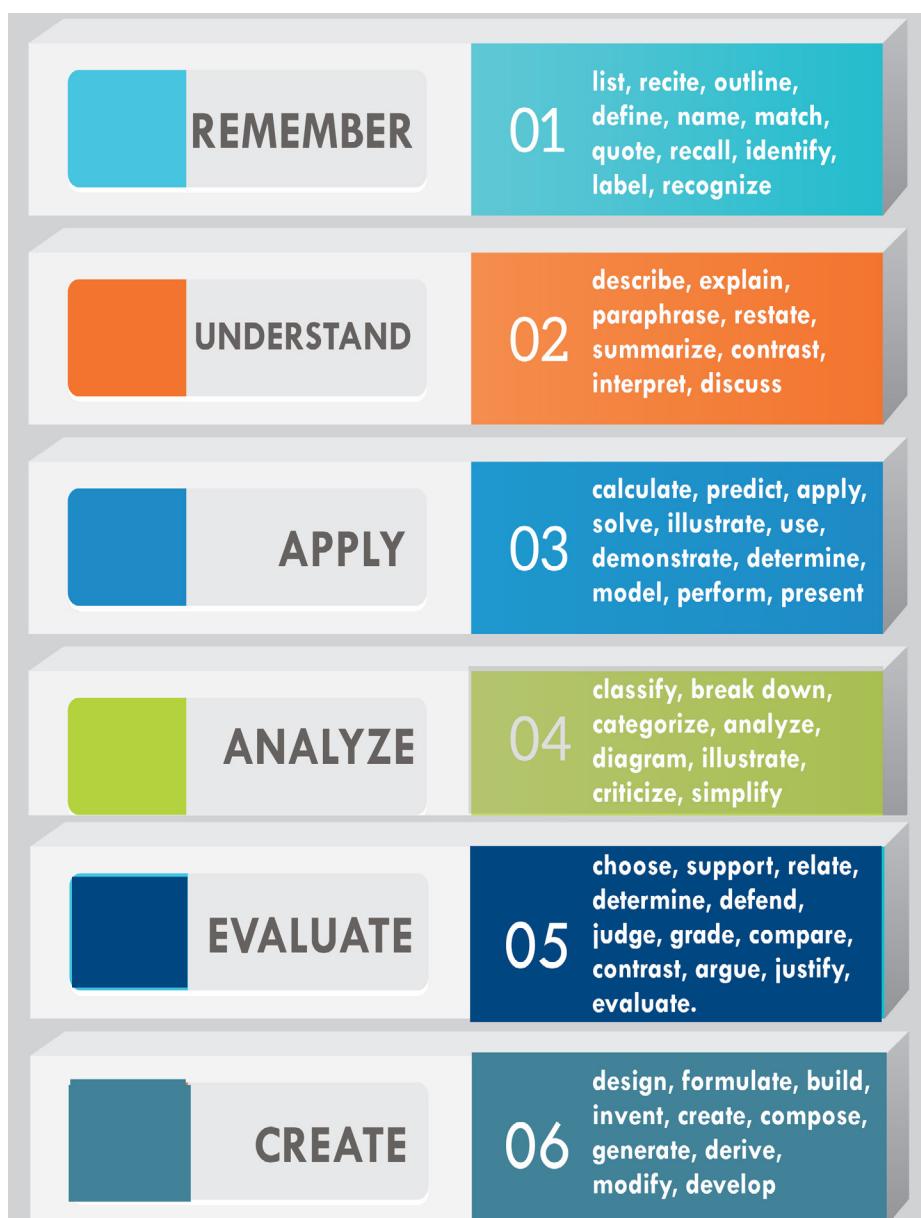
BLOOM'S TAXONOMY

How to Use Bloom's Taxonomy to Shape Your Learning Objectives

Developed in the 1950s by Benjamin Bloom at the University of Chicago, the taxonomy classifies levels of learning based on associated activities. It was a behavioral approach, but over the years it has incorporated other more cognitive approaches. The schema is hierarchical, a progression from rote memorization and recall to creative application.

Training developers often use **Bloom's taxonomy** to help hone their learning objectives. This taxonomy creates a hierarchy of applications of knowledge, from basic recall of facts and terms to advanced application of knowledge to solve new problems. While newer versions of the taxonomy are more complicated, this simplified version will help to solidify your learning objectives.

What do you want learners to do?



Guidelines

Ask What Learners Should DO with Knowledge

When determining your learning objectives., you should always ask what you want your learners to **do** with the knowledge they're acquiring. Focus on how learners will use this information.

Focus on levels 3-6 for scenario-based learning

The first two levels focus on building blocks of knowledge that will then be applied. If your audience is still aquiring fundamentals, you cannot expect them to apply their knowledge readily.

Draw on the taxonomy's list of active verbs

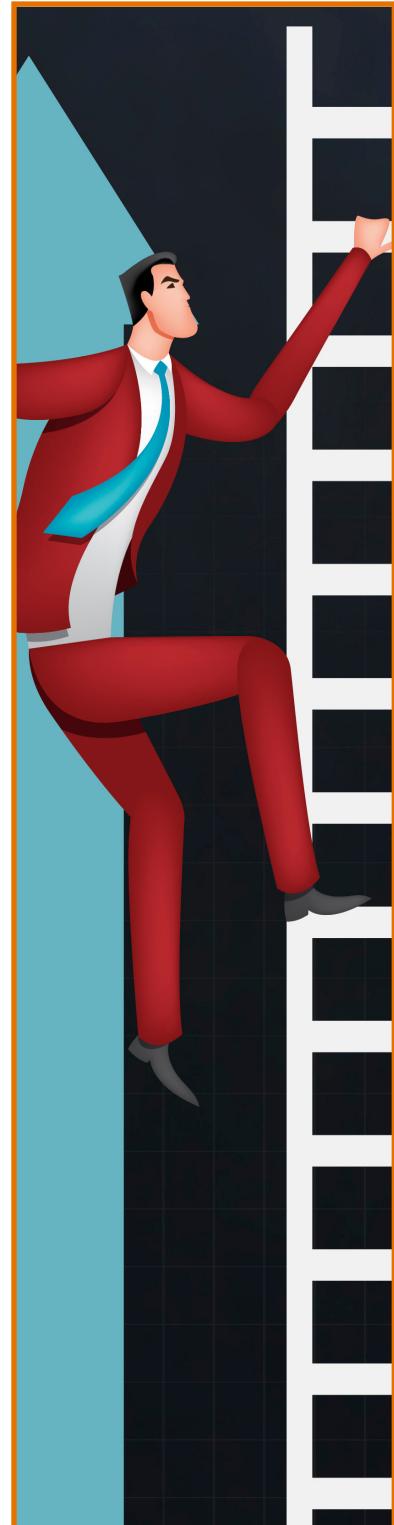
You may have a general topic in mind or even a full-blown slideshow full of information. But those slides of information need to focus on what users will **perform** with that knowledge. So if you are presenting on how career paths can improve retention for front desk employees, what do you want learners to do? **Design** a new career path? **Analyze** existing career paths? **Evaluate** a proposed career path based on established criteria? The vocabulary actuall helps you solidify what you want and helps you think about scenarios.

Be realistic about time constraints and breadth of activity

To continue with the example, designing a career path is probably too complex a task for a single presentation. Your audience is probably not ready to take this on, even with world enough and time. You must guage the type of interaction that is possible within the limitations of your event.

Modify the level of complexity to fit audience's skills

Don't throw out the possibility of asking beginners to solve problems. You just have to not overwhelm them with complex scenarios.



Crafting Your Scenario: Setting the Stage

Good judgment comes from experience, and a lot of that comes from bad judgment.

—Will Rogers

Once you've determined your objectives, you are ready to create a scenario. You are essentially setting the stage by providing just enough information to crystalize the problem so learners can provide a solution. So let's start with identifying the problem you want to present. Where do you begin?

First, your problem may be with something complex and intangible. You may want to explore how certain ways of framing experience lead to problems. The problem may also be very concrete; for example, reviewing what you can list under acceptable costs in a financial report. In both cases, however, you must create a compelling scenario.



Guidelines

Identify Stumbling Blocks

While you may provide an overview of a large process, you probably can't cover everything. In fact, you can cover a surprisingly small amount of ground. That's an inescapable fact. If you don't recognize the limitations, you will traffic in generalities. So you should identify the **persistent problem areas**, the places where your learners will tend to make mistakes.. You should in fact make a list of common errors.

Identify the Reasons for Poor Performance

It's helpful to identify the root cause(s) of errors. For example, imagine you are conducting a session of performance evaluations by supervisors. You have data showing that feedback characterized as "authoritarian" diminishes the effectiveness of feedback. By understanding that a supervisor may have a faulty framework for understanding work relationships (one based on command and control, for example). will help you flesh out your story.

Determine the Degree of Necessary Detail

You need to provide just enough information to help learners **to understand** and **to offer a solution** to the problem. You may need to provide them only with a brief narrative, or you may need to provide them with richer data (for example, if you are dealing with finance)..

In the feedback example introduced above, you may want to provide:

For context:

- A description of the employee's work history/performance reviews, as well as the job role

- A description of the organization's culture

- Documentation (e.g., a sample performance review from the previous year)

For potential solutions:

- A blank performance review for learner to fill out

The degree of detail depends on what you are exploring in the scenario. If you are exploring generational issues in the workplace, you clearly need to offer a detailed description of their "millennial" attributes.

Sample Scenario from AHRQ

Scenario 1: Non-Clinical Situation, Group Project

You have been asked to head a small working group within your organization. When your group was assembled, you were pleased to see that a colleague named Ron had been assigned to your group. Ron is reputed to be a very bright and creative fellow who was part of another highly successful group in the organization. However, Ron has been arriving late to group meetings and recently showed up halfway through the meeting and was clearly unprepared.

You overheard two members of the group discussing Ron's behavior. One group member, Marsha, was wondering why Ron had not been removed from the group yet; the other team member, Bill, speculated that Ron has been having some problems at home and suggested that everyone should cut him some slack.

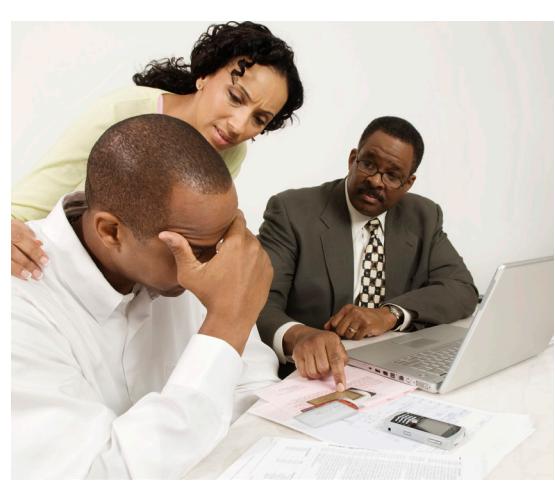
Next week your group is expected to complete an important project so that the results can be passed along to other members of the organization. Each team member is responsible for a different part of the project, and Ron is responsible for the two most important parts. Your group is scheduled to meet tomorrow to do any last minute coordination that may be required. Based on that timetable, you gave the head of your Association your personal guarantee that the project would be done by Monday.

Ron calls you today and says he doesn't have his sections finished and probably won't be able to finish them before the meeting. He says he just needs more time.

What would you say to Ron? In the space below, write in your own words exactly how you would respond to Ron to address this situation.



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Crafting Guided Scenarios

There are essentially two types of scenario-based learning: **open-ended** and **guided**. An open-ended scenario poses a fundamental problem, but does not offer potential solutions from which learners can choose. A guided scenario does offer solutions in a manner similar to a multiple choice question.

When creating a scenario, you can establish varying degrees of guidance. If you paint a portrait of a power-hungry interim CEO whose Machiavellian scheming is wreaking havoc at your organization, you can ask your participants to come up with a series' of board actions or provisions in the planning essentials that would prevent this from happening. In either case, you're offering your participants a lot of freedom to answer.

On the other hand, you can offer learnings a handful of choices that you've put together. It's much like a classic role-playing game. There are consequences for each action, which you can then explore. This is the basis of **branching simulations**. You can adopt that model in your feedback—this choice leads to this unwelcome consequence, and then you can present other choices the learner can make to rectify the situation.

You are contemplating reviewing your organization's CEO job description as external factors may likely alter its mission. What strategy should you employ for best results?

- A. Rely on your company's existing job description.
- B. Craft your job description to meet the qualifications of a promising internal candidate.
- C. Emphasize qualities that will be potentially needed to meet emerging conditions.
- D. Focus exclusively on short-term conditions.



Research has indicated that more controlled, directed scenarios yield better results, when combined with robust feedback. The key to doing this effectively is to develop the scenario with a sense of how learners might resolve the problem in a way that's reasonable, but not entirely effective. This type of knowledge can be essential in providing guided alternatives—you can suggest ways to solve the problem and then provide feedback as to why certain choices are inferior. This is actually the key to creating effective simulation choices. **You want learners to be tempted (at least) by such options.** Otherwise the scenario will be too simple and one-dimensional.

See Alfieri, L., P.J. Brooks, N.J. Aldrich, and H.R. Tenenbaum. (2011). Does Discovery-Based Instruction Enhance Learning? *Journal of Educational Psychology* 103: 1-18.

Guidelines

Determine your Best Practice

When you are creating options for guided scenarios, you should first determine what you want to present as the best practice. This should be the choice that in your opinion would yield the best outcome. It does not have to be ironclad, a universal application. It is just the best choice for the particular scenario. You can address in your feedback the choice's limitations.

Create "Distractors"

You should then add a couple "distractors," options that seem reasonable or are actually common practices. These options should lead to sub-optimal results—though some may be effective to a lesser degree than the best practice. They may in fact be better choices in different circumstances. This is actually reinforcing analytical skills.

Avoid the Obvious Choice

What you want to avoid are scenarios where the optimal choice is glaringly obvious. It would be more instructive to provide three bad solutions and an option to do nothing. You want to put a positive spin on practices that are less than optimal. Don't let the language that you use signal to the learner that an option is less than desirable.

Example

Imagine you are creating a scenario on board chair succession. You have in mind a distractor that reads:

Maintain the status quo at all costs.

You realize that the language clearly indicates its role as a distractor. No reasonable person would think this is a credible alternative. So you need to reshape the wording to conform to how a person might justify their action. Here's your new version:

Keep the existing board governance to ensure stability during this transitional period.

Now you have a distractor that may provoke response and discussion, rather than one that simply screams "wrong choice."





ADAPTING TO A MENTORING ROLE

“Tell me and I forget, teach me and I may remember, involve me and I learn.”

—Benjamin Franklin

We started out by saying that scenario-based learning alters the way one teaches. The focus shifts from an expert expounding on a subject (what academic communities deride as the “sage on the stage”) to active participation of learners and engagement of the expert as a coach, mentor, and facilitator. The underlying metaphor of filling empty vessels with wisdom is no longer viable. Your expertise now is fully on display by **giving feedback** to learners after they try their hand at a task.

Guidelines

LIVE EVENTS AND WEBINARS

Balance your participant’s explorations with reinforcing best practices

Allow the group to provide feedback and generate discussion. You want your learners to share solutions and discuss approaches. Your job is to reinforce the lessons learned.

Explore answers that you consider less than optimal

If the group opts for what you consider a less than optimal strategy, offer your expert opinion and establish a dialogue. You may present this as a hypothetical—“What do you think would happen if you did X instead?” Let the group work through what you consider to be the best practice.

Whenever possible, allow learners to provide feedback

If the feedback is correct, praise the learner and reinforce their insights. If the discussion is going down the wrong path, don’t hesitate to intervene with probing questions. Don’t be too eager to intervene, however, as this will discourage discussion.

Question underlying assumptions for decision-making

In some instances, you will want to explore the “mental framework” at the root of bad decisions. You may want to disrupt or challenge those assumptions in order to “transform” the learner’s key (and debilitating) beliefs. Be prepared with data to back up your feedback.

SELF-PACED LEARNING

Provide feedback for each response.

Explain why choosing a distractor is not the best choice. You can anticipate why they might have chosen a particular response and weave that into your feedback. In a previous example, you refined a distractor to make it more appealing (i.e., by emphasizing "stability"). So you might begin your feedback with:

It's natural to assume that you should maintain stability in the face of rapid change, but....

Suggest what the effect of choices would likely be

A branching simulation would show the effect quite clearly. You would see the effect immediately. You can also simply discuss the effects. Don't ignore the less than optimal choices—you want to clarify in some detail why a choice would not be effective.

Consider dramatizing feedback through characters

Imagine that your scenario involves a handful of characters--a manager with a command-and-control philosophy, a slacker, a productive programmer who values workplace freedom above all else, a malcontent with years of experience, and so on. You don't have to provide feedback in your own voice--you can shape the characters' responses to offer learner's insights. In literature, it's always better to show than to tell.



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