

Yes You Can!

Teach Soft Skills With e-Learning



by Janet Emmendorfer, PhD



WITHOUT a big budget, programming wizardry, or serious brain strain.

Dear Training Professional:

If you're like most of our clients, you're being squeezed. Every year the business demands that you produce better, faster, more engaging, more relevant training... and every year they cut your budget.

You're in a terrible position. You want to produce effective training so your employees will be more productive and help your company survive in this brutal economy. And you want to save money so your company can compete and prosper. And you want to achieve those conflicting goals at the same time. No wonder so many training pros work too many hours... and are forced to neglect the people they love.

Most of our clients were stuck in this nightmare. And most of them escaped. It took a little time and a lot of thinking outside the cubicle, but they did it. And you can too.

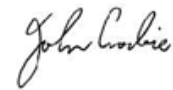
How?

First, read this article for an approach to soft-skills e-Learning that won't stress your programming skills or shred your budget.

Then, if you'd like more suggestions tailored for your company and your unique challenges... just go to www.ame-learning.com/revolution/consultation and we'll get the ball rolling *FAST*.

Here's to your success (and stopping the nightmare forever)!

All the best,



John Crosbie, PhD
CEO, AME-Learning, Inc.



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Yes, you can teach soft skills with e-Learning!

Soft skills—like sales, leadership, service, and communication—are considered by many training pros to be e-Learning’s final frontier, best left for the hardest, most cutting-edge frontiersmen and women.

And, perhaps the common approach to soft skills e-Learning—non-linear branching, often called business simulations or immersive-learning simulations—are better left to the hardest among us.

But, there is another secret passage that can open up soft skills e-Learning to the rest of us. You just need to suspend a couple of assumptions, and stretch some instructional-design muscles.

SUSPEND SOME ASSUMPTIONS

First, if you're going to teach soft skills using e-Learning, you have to accept that it's **possible**. Some may argue that soft skills are too complex... that e-Learning can't turn beginners into expert leaders or communicators.

Frankly, for the most part, I agree. But, the fact is, (almost*) no training can turn beginners into experts. Expert performance comes from a lot of practice and feedback, in real-world environments, under real-world conditions. No training, regardless of how good it is, or its modality, produces expert-level performance by itself.

(* Exception: Fluency training **can** produce better-than-expert performance in beginners, but virutally no one exploits its amazing benefits. So, for our purposes here, we'll ignore this exception to the rule that training does not produce expert performance. We'll tell you all about fluency training in a future paper or video. Email me, or sign up on our website to be notified, so you don't miss out.)

Second, non-linear, branching simulations are not the holy grail of soft skills e-Learning. And that's a good thing, because they're a pain to build. Trust me on this. You really don't want to design or build a complex, non-linear, branching simulation if you don't have to.

SIMULATIONS

First, let's consider what we mean by simulations.

By definition, their aim is to simulate something, to approximate reality in some way. Exactly what they simulate, and how, varies a lot.

For example, some focus on simulating a real environment, with 3-dimensional artwork made to look like an office. Participants in this type of simulation may "move" their point

of view around the screen to simulate moving, walking, or looking at different things.

Others focus on simulating the more mental aspects of a task—for example, making decisions—and present situations mainly in text.

Here are some examples: [Humentum](#); [AME-Learning](#).

Whatever the specifics, soft-skills simulations usually present some sort of job-related scenario, and prompt learners to respond to the situation in some way. Learners' responses branch them onto various instructional paths.

In this article, when I refer to "simulations" or "business simulations" I mean e-Learning with non-linear branching as a primary feature, regardless of specific formats or appearance.

Of course, the aim of this kind of non-linear branching is to approximate real life.

And in some ways, it succeeds.

Like in real life, events don't necessarily happen linearly; learners can go down the wrong path, and there are consequences. But those consequences can be very subtle. Learners can make a choice on Page 1 with an effect that's not apparent until Page 26C.

Yes, that's how the real world works. But, no, it's not a great technique in training, where immediate, salient consequences work best.

Simulations aim to approximate the real world because that's where learners will end up. But, if they were ready for the real world, they wouldn't need training, would they?

Besides, in the end, most simulations aren't all that realistic anyway. They're necessarily constrained because we just can't design and build the entire universe of possible paths.

In practice, it's difficult to maintain "incorrect" paths for more than one or two choice points, because the number of possible paths multiplies exponentially (see Figure 1).

So, the scenario design must have one

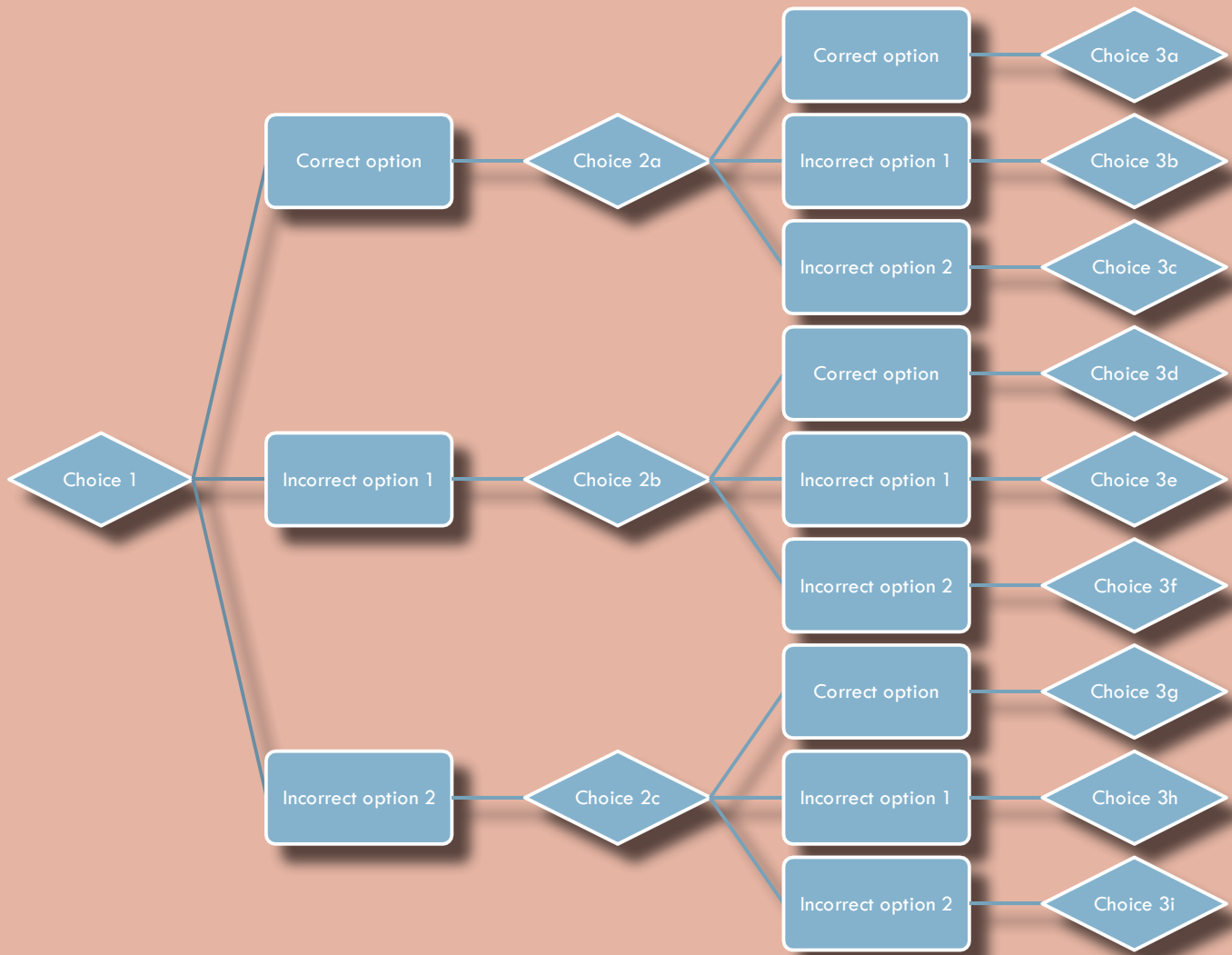


Figure 1.
An example of how simulation branching paths can multiply quickly.

“correct” path, and various “incorrect” paths that meander briefly, but soon lead back to the correct path. And that can make for choice points with some very contrived options, even in the best designed scenarios (see Figure 2).

So, in pursuit of realism, feedback for incorrect responses is delayed, making it less effective. And, for anyone who makes an incorrect response, the illusion of reality is quickly lost anyway, because of the constraints inherent in crafting paths.

Essentially, then, these kinds of simulations work best for people who always make the right choice. And, if they always make the right choice, are they really learning anything new?

Plus, because the program must recognize learners’ responses in order

to send them down the right path, you are limited to multiple-choice options. Multiple-choice questions are not inherently evil*, but they can certainly detract from the realism, and limit teaching for tasks where the form of a constructed response is important.

(* Note: Multiple-choice questions often get a bad rap. But, when designed properly, they can be very effective. Think about the SAT. Designing good multiple-choice questions is a substantial topic all its own, one we’ll cover in a future article or video. Email me, or sign up at our website to be notified of new topics.)

Business simulations can be useful and effective training tools. I’ve seen and produced some nice, well-received, soft-skills simulations. And I think well-


designed simulations can make for great capstone exercises or tests. But, their main appeal—some approximation of the real world—does not necessarily translate to more effective teaching. And, the time and effort required to develop them does not necessarily translate to optimal bang for your e-Learning buck.

So, in my view, they may not be worth the time, money, and ulcers.

A **NOTHER PATH**
So, if simulations aren’t the final or only answer for soft-skills e-Learning, what alternatives are there?

Well, I’m a big fan of what I like to call a **component-composite** approach, a term I’ve borrowed from the behavioral fluency field. To teach kids calculus, for

Customer



Sorry, it doesn't sound like this loan is for us.

What do you say next?

- Forgive me, I forgot to mention the benefits of payment flexibility and no closing fees.
- Ok, thanks. Good luck.

nonexamples.

And we gave learners lots of practice in identifying good and bad call openings.

We taught the remaining parts of the call model in similar fashion. Then, we pulled the parts together into the composite skill: using the model. After learners had mastered the ins and outs of each part of the call model, using the model—deciding which of the parts to invoke when—was a much simpler task than trying to learn the what, why, and when all at once.

But, just like business simulations, this approach fails to handle constructed responses. And, surely, the verbal response is important for call-center reps, right? But, let's consider a couple of reasons the component-composite approach is a good solution despite that limitation.

First, let's recall one of those assumptions we made at the start: Training isn't perfect; it can't create experts all by itself.

The best training takes learners close enough to the real world so they can leap the last gap and land safely, then get on-the-job practice and feedback, then become experts.

Figure 2.

An example of a simulation question designed to get learners back to the “correct” instructional path. Because there are no other “incorrect” paths to follow, the correct choice must be made patently obvious to learners.

example, my colleagues in behavioral fluency would begin by teaching the kids to identify each digit until they had mastered that task. Then they would teach them to add and subtract numbers, then multiply and divide, then some algebra, etc.

The idea is that in order to teach the big, complex, composite task “differentiate an equation,” you first have to teach all of the smaller, component tasks that make up that larger task.

You wouldn't just give them the calculus problem and see which path they wander down.

The same technique works well for teaching soft skills in general. But, it's particularly great for e-Learning, because we can give learners lots of practice without trying the patience of any humans.

Here's an example of a course that used the component-composite approach to teach advanced call center skills to customer service representatives: [Demo](#)

In this example, the composite task, or overall objective, was for learners to correctly use the company's model for outgoing collection calls. The model was a flow chart that defined what reps should say during a given phone call, and depending on how customers responded (see Figure 3).

As it happened, the call-model flowchart was a natural instructional design. Each box, or step, in the model served as a component task.

So, for example, the first step was opening the call. An **open** had several requirements to be considered good and correct. So, we taught the components of a good **open** using examples and

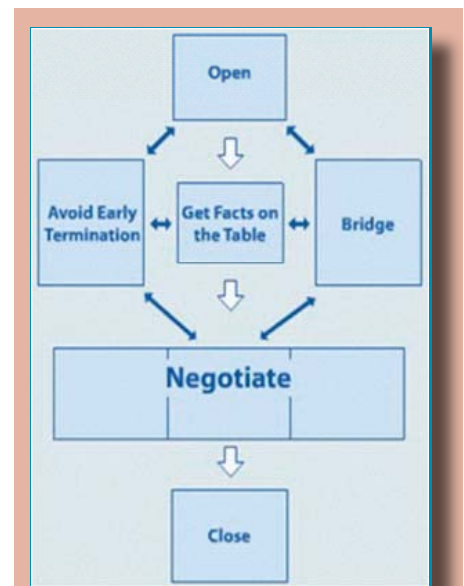


Figure 3.

A diagram of the call model used in the call-center example course.

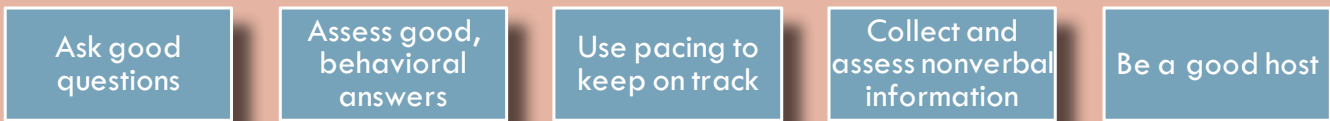


Figure 4.
The first level of component tasks from the example course in behavioral interviewing.

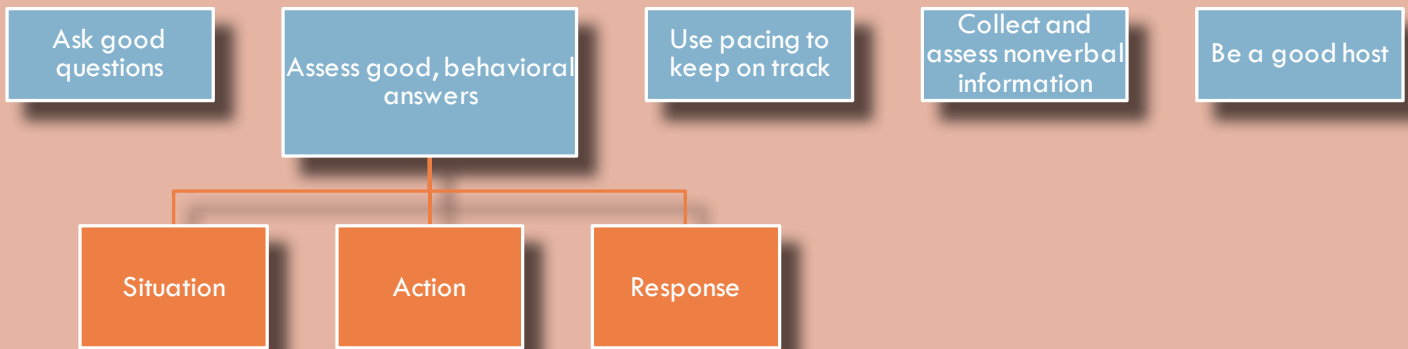


Figure 5.
Breaking one component down into smaller component concepts in the example behavioral interviewing course.

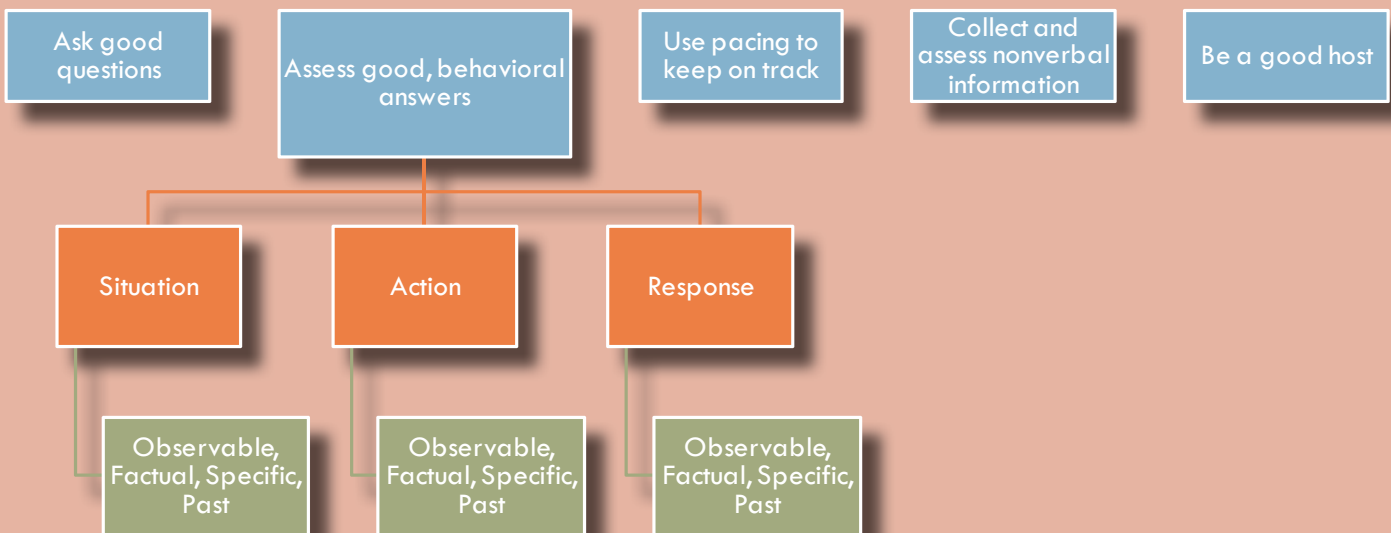


Figure 7.
Increasing the precision of second-level concept components by breaking them into smaller concepts in the example behavioral interviewing course.

Call-center reps already knew how to speak, so the training we provided got them close enough for a safe leap. But still that's not a totally satisfactory answer.

So, let's look at a couple of my favorite studies on this topic.

SOME DATA

In *The Technology of Teaching*, Skinner talks about teaching handwriting to school kids.

He suggests that if kids are taught to discriminate good, well-formed handwriting from bad before they write themselves, when those kids start writing, they'll have better handwriting than kids who don't get the discrimination training first.

What does this tell us?

Carefully designed discrimination training (basically, good multiple choice) can improve the desired outcome (i.e., the constructed response) even if it's a completely different format.

Think of it this way: Making those school kids into master handwriting critics gives them the tools they need to critique their own work, outside the training environment.

Crosbie and his students studied computer-based programmed instruction in the 1990s, using a classic, fill-in-the-blank style programmed text as content.

They wrestled then (as we do now) with the issue of constructed responses: how to have the computer judge and score responses when learners typed words and phrases.

Their solution was to have learners type a response. Then, the program showed the correct answer, and asked learners to indicate whether they had answered correctly. The program saved all the data so they could be checked later for accuracy. The results were interesting.

The learners were much harder graders than the experimenters.

And, learners who had graded their own, constructed responses performed 10-15% better than other learners.

This result tells us that self-evaluation

Click the term that identifies the underlined portion.

When my boss asked me to improve communications in our department, I held lunch meetings with a topic for conversation. We routinely had 75% of the office attend.

- Situation
- Candidate's action
- Result

Right. The result of scheduling conversations was 75% attendance.

Figure 6.

One of the interactions used in the series of discrimination training to teach the concepts situation, action, and result in the example course on behavioral interviewing.

By keeping my data files on my laptop instead of the network, I inadvertently kept information from people who needed to know it.

- Past behavior
- Hypothetical behavior

Right. Although it's a negative example, it still describes an action in the past.

Figure 8.

Example of an interaction designed to teach the component concept past behavior in the example behavioral interviewing course.

Does this statement meet all 4 criteria:

- Observable
- Factual
- Specific
- Past

Last week, I went to a physician's office to make a sales call. Before I presented the products, I asked about his recent vacation.

- Yes
- No

Right. The statement describes a past behavior that is specific, factual, and observable.

Figure 9.

Example of an interaction where users assess the concepts observable, factual, specific, and past all at once in the example behavioral interviewing course.

In my first job, my starting salary was really low. After a few years, my salary hadn't caught up to my responsibilities. So, I talked with my boss about it.

Situation
 Action
 Result

Low starting salary... and hadn't caught up... describe a situation. Talked with my boss... is an action, but we don't know the result.

In my first job, my starting salary was really low. After a few years, my salary hadn't caught up to my responsibilities. So, I talked with my boss about it.

Is this action:

Observable
 Factual
 Specific
 Past

The action was in the past, and talking is observable, but we don't have any specifics or facts about the talk.

Figure 10.

Example of a multi-part interaction from the behavioral interviewing course. Learners first indicate whether an example interview answer includes a situation, action, and result, then they assess the quality of each part included in the description.

can be a useful instructional technique in its own right, not just a work-around for including constructed responses.

A PROPOSED APPROACH

These findings, and our previous discussion, suggest what is perhaps an ideal approach for teaching soft skills with e-Learning:

1. Use a component-composite approach to break complex content into smaller, more manageable tasks and sub-tasks.

Teach the tasks individually to develop a good foundation. Then build the tasks into larger, composite parts, until you reach the overall goal.

This technique reduces the complexity and mystique of soft skills by tackling them one task at a time, and introducing complexity gradually, while providing lots of practice.

2. Provide discrimination training on each task.

Have learners identify and critique carefully designed examples and non-examples to teach important concepts that are the foundation of the composite soft skills.

The quality of instructional design at these levels is critical to overall success at the composite levels. You need to provide training examples that cover the full range

learners will encounter in the real world.

And you need to use non-examples that are realistic, and almost correct, to develop really fine discriminations.

This is how you build realism into soft-skills training: Use a wide range of examples and non-examples that vary along all the dimensions that are important in the real world.

Rather than trying to build a realistic *environment* that is constrained by its sheer unwieldiness, build *realistic little chunks* in a simple instructional environment, and use many of them.

(There is an entire scientific approach to designing the optimal range and number of examples and non-examples. It's very deep stuff, but some of the absolute best instructional-design technique you can have. We'll cover concept analysis in a future series of articles or videos.)

3. As you build component tasks into composite skills, require more sophisticated responses.

When appropriate, require constructed responses, and have learners compare their performance against a standard. Learners could even record or videotape their performance and critique factors like tone of voice and body language.

Though you may not have seen much

e-Learning that follows this approach, the ideas really are not new.

In fact, one of the best examples I've ever seen was a CD-ROM course on behavioral interviewing that was first developed in 1997.

Let's look at how it was designed, and how that design was implemented throughout the course.

A DETAILED EXAMPLE

The overall objective was for learners to conduct a behavioral job interview and assess candidates' answers—certainly something that most people would consider a complex, soft skill. But, the developers took the course design one step at a time.

First, we need to break "behavioral interviewing" into some smaller components (Figure 4).

That's certainly a start. But, those are still some pretty big, daunting tasks. Let's use the sub-task *assess good, behavioral answers* as an example, and break it down further (Figure 5).

If we define *good, behavioral answers* as answers that describe a situation, action, and response, then we're starting to get to tasks that are small enough to start teaching.

Here's how this design was implemented in the course: Each of those

three concepts was defined, then learners completed a good series of carefully designed discrimination training on them.

Given a description of a candidate's answer, learners had to identify whether the underlined portion described a situation, action, or result (Figure 6).

Once learners have mastered situations, actions, and results in general, we want them to get a little more precise. Not just any description of situations, actions, and results will do. We want learners to identify *good* ones. That means we need to break those concepts down even further (Figure 7).

To be *good*, each description must be *observable*, *factual*, *specific*, and *past*. Those are all teachable concepts, so more discrimination training is in order.

Figure 8 shows an example exercise from this series. Like before, learners are presented with several examples and non-examples, and asked to judge whether each meets the requirements for *observable*, *factual*, *specific*, or *past*.

Each of these 4 concepts is trained individually, so learners complete 4 series of exercises to learn the components of a good, behavioral description.

Those components are about as small as they need to be, so it's time to start building the pieces together as we increase the complexity.

First, we ask learners to judge whether answers meet all the requirements (*observable*, *factual*, *specific*, and *past*) at once, rather than looking for them one-at-a-time (Figure 9).

Next, moving up a level of complexity, learners are then asked to assess whether longer candidate answers include good descriptions of **all three parts** (situation, action, and response; Figure 10).

While presenting similar instructional sequences for the remaining, higher-level tasks, the course continues to build smaller pieces together while increasing complexity.

For example, in one exercise, learners watch video snippets of interviews and assess whether candidates' verbal answers

match their non-verbal body language.

Later on, learners watch longer video interviews. In the video, the interviewer asks a question and the candidate responds. Learners are asked to judge whether the candidate's answer included good, behavioral descriptions of a situation, action, and result, or if the interviewer should ask a probe question.

When learners decide that a probe question is required, they type the question into a blank, then see examples of correct probe questions from experts.

In the final, capstone exercise, learners watch a complete video interview and assess the candidate using a PDF structured interview guide. After the interview, learners compile their notes, rate the candidate, then compare their notes and ratings to those of an expert interviewer.

That sounds a whole lot like conducting a behavioral interview to me, and there wasn't a single 3-D image or branching path in sight.

This course starts with very small component tasks (e.g., *Is this observable?*) and ends four hours later with a complex, composite skill (i.e., *Rate this job candidate*).

Along the way, learners have responded to, and received feedback on, hundreds of interview examples.

CONCLUSION

A well designed component-composite approach isn't easy; it requires a serious instructional-design effort. But, consider the alternatives.

Business simulations also require serious instructional design to craft all the paths. Plus, they require complicated programming to keep track of everything and make it all work.

Well designed, instructor-led training with role playing may have good content.

But, there's no way that each individual will make as many responses and get as much feedback as they can with e-Learning. Plus, there are additional drawbacks to instructor-led training, like the cost of trainers, training rooms, travel, paper, and lost work time. (See our white paper [Stretch your training budget at least 60% further.](#))

So, come join the pioneers. Just dust off those instructional-design tools, and you, too can take the alternate path to soft skills e-Learning. §

About the Author

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Janet has a PhD in psychology—learning and instructional design—from West Virginia University, and more than 10 years' experience in teaching, training, and instructional design.

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Janet solves clients' training problems, even when they have a tight budget, no resources, and an impossible timeline. That's why clients love working with her.

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