

## Training Design Cycle

**KERRY KINSLOW:** Hello again. My name is Carey Kinslow and I'm an instructional system specialist at the National Training Center in Phoenix, Arizona. In this video segment, I'm going to explain how the NTC and many other successful organizations develop training.

At the NTC, we follow a systematic process that allows us to develop quality training for everyone in the field within the bureau, and in some cases, the department and other federal agencies. But why should you, the instructor, care about this process? Well, chances are, you will be involved in at least one or more of the steps in the training development process. Having said that, the purpose of this presentation is to familiarize you with the NTC's training design and development cycle so you can see how you fit in to the big picture; therefore, by the end of this whiteboard presentation, you should be able to identify the steps in the training design cycle. You should also be able to explain the purpose for each step in the design cycle. And finally, you should be able to state why each step is important to building quality training.

Well, now that you know what our objectives are, I'm going to talk about each of the 12 steps in the training design cycle starting with determining training needs. Now, when we're talking about determining training needs, this is where training is born. It is in this step that we are trying to find out what training is needed and why. Now, when I say we're, I'm talking about the National Training Center and its coordinators. Now, what we're trying to do is we're trying to determine the actual state of task performance in the field for a given job position versus the desired state.

Now if task performance out in the field is not in that desired state, then we have a training gap. Now, the question that you might be thinking is how do we determine this training gap. Well, we do it through what's called a needs assessment survey that's actually sent to the field. And yes, it is discipline-focused; meaning, you can have a needs assessment survey for realty specialists. You can have one for cadastral surveyors. You can have one for recreation specialists. Now, if we don't send one--a written survey out to the field, we could also do it via telephone interviews. And sometimes we even determine our needs through discussions with the Washington office.

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But what causes the gap? Well, the gap in training between the actual versus the desired state could be caused by new processes, equipment, or even changes to regulations, laws, and policies.

Now, once we have our need identified, what we will do is we will begin to plan the training. Now, when we talk about planning the training, what we're doing here is that we at the NTC, we're gonna sit down with a coordinator, meaning, someone such as myself, like an instructional system specialist is gonna sit down with our coordinator here, meaning, our subject matter expert, and we're even gonna sit down possibly with the project sponsors, somebody who initiated the training, somebody who wanted the training to go forward. We're gonna sit down with them and then we're gonna determine some things.

First of all, we're gonna determine the design team. We're gonna talk about who will be on the team, when the design will actually happen. We're also gonna look at reviewing the needs analysis. We're also gonna look at what the goal is for the training. We're also gonna look at whether or not the actual task or the goal of the training is competency-based; meaning, this is an actual required skill for those people out in the field.

Now, since we're gonna be developing training, we're gonna want to know, is funding available? No funding, no training. We'll also gonna look at if there's gonna be any prerequisites to take for the training; meaning, the students. And then finally, is the training, is it required? Meaning, does it need to be tracked. And if so, we may want to do it through some type of tracking system like DOI LEARN where the students actually has to go in and register for the actual training, and all the way through completion is tracked.

Now, during the planning meeting, we will also need to analyze the actual target audience. Now, when we're talking about analyzing the target audience, we're talking about looking at, well, who needs the training? What skills does this target audience already have? And in terms of those skills, what is their proficiency level. I mean, think about it, there's absolutely no reason to develop training at a very low proficiency level if they have higher skills with that particular task.

Are there certain personality traits that are associated with the target audience that we might

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need to know about? Meaning, the instructors. What attitudes does this target audience bring to the training? You see, what this will do is this will help us to make sure that we design training specifically for this target audience.

Now, once we have finished planning, what we're gonna do is, is we're gonna get the design team together and we're gonna look at the goal and determine the tasks to accomplish it. So in other words, what we need to do is we need to list the tasks. Now in some cases, we may have one task, meaning a major task, or we may have a series of tasks that we need to look at. But in any case, here's something that you definitely want to look at. We, up to this point--these first three steps are what we call the analysis phase. But up to now, all we've been is just kinda sitting down and planning and doing no sort of things. But now what we're doing is, is we're bringing in those SMEs and we're actually gonna sit down into what we call a design meeting.

Now, again, we're gonna ask them what tasks are involved with reaching that goal that we identified back here in the planning stage. Now, there may be several tasks like I've said. An example could be that we want them--the goal of the course could be to have them write effectively. That's a pretty big task. But we also might have some subtasks associated with that, things like we want them to develop effective sentences and paragraphs. We also want to teach them how to write and use correct tense and write in correct person, and also to develop their structure whenever they're writing. These are all known as subordinate tasks.

Now, once we have listed the tasks, what we're gonna do is we're going to analyze those tasks. Now, again, these tasks are what we're trying to do in terms of getting that student to the goal of the actual training, all right? So this is where we're gonna break tasks down into their smaller pieces; meaning, we're gonna do a task analysis. So what we're gonna do for each of those tasks is we're gonna flowchart out the process of the task to determine the steps that are associated with that particular task. We call this the subtask. Now, why would we wanna do that? Well, we don't wanna miss anything. We want to make sure the training is complete. We wanna make sure that it makes sense, that it flows and it aligns with the course goal that was determined back in the planning phase.

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Now once we've accomplished this feat of mastery, what we're gonna do is we're gonna go ahead and we're going to write our objectives, and we're going to write performance-based objectives. Now, when we talk about performance-based objectives, we're talking about writing objectives that contain a condition, a performance and criteria, unless it's a knowledge-based course. Now, the objectives are gonna form the framework for the course or the training event, if you will. It's what we want the students to be able to do after they receive the training. Objectives are also going to help our instructors. They're gonna help our instructors in terms of giving them guidance when they build their lessons, their exercises, and even the tests.

Speaking of assessments, we're gonna sit down in that design team and we're going to, yes, design our assessments. Now, here's what we're asking when we're in this particular phase of the training development design process, "What will the participants do to show that they have mastered those objectives? Are they going to take some kind of written evaluation where they sit down and they write with pen and paper? Or, is it gonna be a performance evaluation in terms of, is an instructor actually gonna sit there and evaluate a student doing a physical task using some type of a checklist or a scoring rubric?" And also, what we're gonna do is we're gonna design the exercises within each of the units or the lessons within that particular training event or course. What are the exercises gonna be?

Now, with that said, what are the test items gonna look like? What type, when we're talking about the test. Is it gonna be true or false, multiple choice? Is it going to be fill-in-the-blank? Is it gonna be a combination of? Is it even gonna be a blended approach where we have them take a written evaluation but we also have a performance evaluation as well, kind of a nice combination to have to measure both the cognitive as well as the physical performance. And then finally, when we are talking about designing assessments, what will be the level of difficulty? Well, this will be largely dictated by the objectives that we write in the stage before.

Now, once we've designed the assessments, we will determine the actual delivery method. Now, some of you might have been thinking, "Wow, I always thought you determine the delivery method way back up here at the beginning." Well, we cannot determine the delivery method until

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we have designed it; meaning, the training. Now again, we're in design, we have planned and analyzed the target audience and plan for the course. We've designed it in terms of listing the tasks, analyzing those tasks, writing the objectives, designing the assessments, tests, exercises and things of that nature. And now, we can determine the delivery method.

Okay, if we went ahead and determine our delivery method way back here, it would kind of be like building a house without considering where and what environment. Ever given much consideration why there are brick homes in the South and Midwest? Tornadoes. So, how will the training be delivered? That's the question we can now answer because now we have designed it and we know what's gonna be in it.

Now, we have choices here. Based on our design, our objectives, is it gonna be a broadcast? Maybe we want to make it online, something where the students has to register through DOI LEARN and they take an online course. Maybe it's best. Maybe it's a physical activity that we absolutely have to have in a classroom. Maybe it's a correspondence. Maybe we can put something on a DVD. Maybe it's a blended approach where we have them do pre-work where they do something online but yet we still bring them in to a classroom. Or maybe we even use something like WebEx, which is the new application for the department whereby the training is actually given live online.

Okay, something else to consider in the delivery method, who will be the instructors? No, that is absolutely right. We may not--whoever was on the design team doesn't necessarily mean they're gonna be the people that are going to deliver the instructions. So we need to determine who those instructors are gonna be. And then finally, who will deliver each lesson or unit of instruction, if you like. Once we've determined the delivery method, what we're gonna do is we're gonna structure the course.

Now again, believe it or not, we're still in the design phase. So even though we're doing all these different steps, these steps right here are still with the design team that could be--that would probably take place either online using WebEx, or we might go off-site somewhere at a hotel and

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meet, or even here at the National Training Center where we actually get into an actual design process. It could take up to as much as a week.

Now, what we're talking about structuring the course, this is where the design team is going to, well, develop an outline for the course. What is the course schedule? What lessons or what units need to be taught first, second, and so on? What we're doing is we're talking about sequencing when we're talking about structuring the course, or the training event. We will also look at time allotments for both the lessons as well as the breaks. Now, some of you might be thinking, "How do you determine time for those lessons?" Well, largely, that's gonna be dependent upon those objectives and what exercises are in them, and what type of learning strategy was used to deliver that lesson. But all of those things will be determined in the design process.

Well, now that we've analyzed, we've designed the training, now we're gonna get to the biggie, and this is where we actually develop the training. So what we're gonna do is we're gonna put in here, develop materials. Now, when we're talking about developing materials, we're talking about you the instructor developing things like your lesson plans and your exercises. Now, this can be a very time-consuming phase and generally speaking, this is where we spent the most time. Because when we're talking about all of these other particular phases, these are pretty quick. But when we get to here, people, meaning, our instructors, need time to develop those lesson plans and exercises. They also need time to develop things like case studies, maybe handouts that go into a notebook. Speaking of the notebook, that might need to be put together if it's applicable.

Now, the development portion of the actual training design and development cycle could last as much as six months, a year, it just depends on how big the course or training event is in terms of the objectives and the assessments.

All right, once we have all the training materials and they've been edited by the team, we can go ahead and conduct the pilot. Now, the pilot is the course offering; meaning, the first time it's offered. After that, it's just a course offering, after that. But the first one is always considered the pilot. And then of course, we want to evaluate. I'm gonna talk about these last two steps together.

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Now, here what we're doing is we're looking to see if the training, the content in the course matches the designed objectives as well as the assessments. Very important, we wanna make sure they match. Now, something else when we conduct the pilot, we're also looking at the test items. Are they valid and reliable? In other words, we're gonna do a test item analysis to make sure that we're measuring what were supposed to be measured.

Are the course materials effective? What does the target audience think of the training? Did the participants have an opportunity to show that they had mastered the training objectives? An example of an ineffective course would be to have great objectives but no assessments; meaning, we have no idea whether the students can do what we said we want them to do at the end of the course. So when we're talking about conducting the pilot, these are some of things that we're trying to find out by doing this evaluation.

Now, a lot of these questions will be answered using the MTM, the Metrics That Matter. That's the NTC's online survey measurement system, as well as--what we're gonna do is, we're gonna conduct course assessments; meaning, the tests. So we have the students' tests and then we do a survey; meaning, student returns to the field, they get it in the e-mail, they get an MTM survey that says, "Hey, what did you think of this? What did you think of that in terms of the course that you've just went through?"

Well, that's the NTC's training design and development process. Well, now that you know how the NTC develops training, you're in a much better position as an NTC instructor to help us develop quality training for the bureau and the department. Your design, development, and delivery responsibilities are critical to everyone in the field to the extent that they receive the necessary training to accomplish their job tasks. Bottom line, without you, the training just doesn't happen. Yes, you are that important. Always keep that in mind. I look forward to seeing you in the design room.

[END AUDIO]