

Excerpt from

Map it: The hands-on guide to strategic training design

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Chapter 3. If we don't teach, then what do we do?

Focus on performance, not information

If we dump the school model, our goal is no longer, "Tell them what they need to know and test them to make sure they know it."

Instead, we have to come down from the clouds and ask big and potentially scary questions, like, "What are we trying to do? What tells us that we have a performance problem? What's causing the problem? Is it really a lack of knowledge, or is something else going on? Is training even the solution?"

I developed action mapping in 2008 because I felt we needed a structured way to combat the school model. Let's look at how action mapping compares to the traditional approach.

Example: Same story, two approaches

We'll take two approaches to the same situation.

In the first version of the story, the designer thinks her job is to create a course that delivers the information that the client has provided. She'll use a conventional approach.

In the second version, the client is the same, but the designer's perspective is different: She thinks her job is to solve the client's problem. She'll use action mapping.

I have both designers use elearning so you can compare their approaches easily. However, action mapping works for all types of training, as we'll see later on.

Like most examples in this book, this one is simple. That's because I want you to see the process clearly. Don't let the simple stories fool you — action mapping easily scales up to help you solve complex problems and deliver big projects.

Assignment: Safety course for a hospital

The client, Harold, wants an online course about sharps safety for hospital workers. Sharps are needles, scalpels, and other sharp things that can become contaminated and spread infections.

Everyone who is supposed to take the course is an adult with some experience working in a healthcare setting or who at least has seen the inside of a doctor's office.

Tina: "My job is to create a course."

First, let's look at the conventional approach. The designer, Tina Teachalot, operates under the school model and believes her job is to create a course.

Meet with the client to accept the content

"We need a course on sharps safety," Harold says. He gives Tina the slide deck that the hospital used in the face-to-face training, which they're phasing out. "Everything people need to know is in this deck. Please turn it into an online course."

Tina reviews the slides and comes back with a few questions like, "I'm not sure I understand this slide. What's the most important thing here that they need to know?"

Write a script

Once Tina is sure she has all the information, she writes a script for the course. The script has separate columns showing what the narrator will say for each slide, what will appear on the slide, and how the user goes to the next slide.

The original deck has 112 slides, and some of them are dense, so Tina breaks them into smaller slides. The final, long script describes 130 slides.

It takes Harold awhile to give his feedback on the script, but finally Tina is ready to produce.

Put it together

Welcome screen with objectives. Tina welcomes people to the course and displays a list of what the course is supposed to teach them. Here's one objective:

Identify the risks associated with improper handling of sharps

Introduction. Tina tells people why the topic is important, using scary statistics about diseases transmitted through contaminated sharps. Two million avoidable infections every year!

Presentation. First, Tina presents information on how to handle and dispose of needles correctly. She creates several screens listing do's and don'ts, with bullet points read by the narrator.

Tina wants to engage learners with interactivity, so on some screens people click images to reveal more information.

Since Tina spent money on narration, she can't afford to take custom photos of someone handling needles. Instead, she adds stock photos of no one in particular wearing a lab coat.

Knowledge check. After several screens of presentation, Tina makes sure people understand by asking a few questions. Here's one:

True or false: To reduce the risk of a needlestick, you should recap a needle by holding the syringe in one hand and the cap in the other hand.

It's the same as asking, "Do you remember what you saw three screens ago?"

Presentation + knowledge check, over and over. Tina continues alternating between information presentations and knowledge checks, adding some click-to-reveals for engagement. She spends a long time creating a clickable hypodermic needle that reveals do's and don'ts.

Assessment. Finally, Tina presents a test that uses the same kinds of questions that appeared in the knowledge checks. Here's a typical question:

Which of the following is not a method of sterilization?

- a) Dry heat
- b) Soaking in chemicals
- c) Boiling
- d) Autoclaving

Approval

Tina has Harold check everything, and she makes some changes that he requests.

Implementation

Tina puts the course on the hospital LMS, and Harold assigns it to all staff. Everyone takes the same course, whether they're a janitor or a phlebotomist.

Evaluation

Most people report that they "learned a bit" or "learned a lot" from Tina's course, and everyone passes the assessment. Success!

No one knows if people have changed their behavior on the job because no one's measuring that. Tina's done!

What was she thinking?

Tina's decisions were driven by her view of her job. Here's how she describes her job and tasks:

"The client views me as a course producer."

"The client identifies the information that I should cover."

"I make an online course engaging by using narration, images, animation, and clicking."

"I mostly design information."

"I don't let anyone skip what they already know, because they might be wrong."

"If people understand the information, I've done my job."

As you read the next story about another designer, Anna, consider this: How would Anna respond to Tina's beliefs?

Anna: "My job is to solve the problem."

Let's approach the same project from a different perspective. This time, the designer is Anna Action von Mapp, who views her job as "solve the client's problem."

Meet with the client to set a goal

"We need a course on sharps safety," Harold says. He gives Anna the slide deck that the hospital used in the face-to-face training, which they're phasing out. "Everything people need to know is in this deck. Please turn it into an online course."

"Thanks for the slides," Anna says. "So you're phasing out your live course?"

"Yes, it was too hard to schedule and didn't seem to be working well."

"You still had safety problems after the training?"

"Yeah, the error reports barely went down," Harold says. "I think people tuned out the course, because they have to go through so much training. They're tired of it."

"So you'd still like the errors to go down," Anna says. "Do you have a specific target in mind?"

"To match the hospitals with the best record, we'd need to have an 8% decrease in errors," Harold says. "Ideally, we'd reach that within a year, when a big safety report comes out."

"That sounds like a great goal," Anna says. "Let's consider that the goal for our project." She goes to the whiteboard and writes, "Errors with sharps will decrease 8% within a year as all staff correctly handle sharps."

"That looks good," Harold says, brightening. "That's what we want our course to accomplish."

Identify what people need to do

"If you have a few minutes," Anna says, "I'd like to make sure I understand what people are supposed to do and what they're doing instead."

"It's easy to list what they're supposed to do," Harold says. "It's all in our standard operating procedures. But no one looks at those."

"Could you send me the procedures that apply to sharps?"

"Sure," Harold says. "But they'll put you to sleep."

"Are there any other documents that tell people what to do, like job aids or signs, or anything like that?"

"Yeah, they're everywhere," Harold says. "For example, there's a sign on the wall of every room that tells you what to do if you've accidentally stuck yourself with a contaminated needle."

(I'd like to say that Anna then goes to the hospital and follows workers around, taking pictures of the job aids and the work environment, but that almost never happens, so...)

"Could you send me pictures or copies of that sign?" Anna says. "And copies of any other common job aids that relate to handling sharps?"

"I guess so," Harold says. "But no one pays attention to the signs. They fade into the background because you see them everywhere."

"We might be able to change that," Anna says. "Give me a little time to look at your slides and other materials, and then I'll have a few more questions and an idea on how to go forward."

Over the next few days, Harold sends Anna some standard operating procedures (SOPs) and photos of several signs about how to handle sharps. Anna looks at the training slides, noticing that they mostly present the SOP content. She also spends some time on the internet, learning about common errors in handling sharps and how other hospitals have tried to solve the problem.

Identify why they aren't doing it

Anna sets up another meeting with Harold and asks him to bring two or three future learners as well. Harold comes with a nurse who has years of experience and an aide who's just starting out.

"I've got a good idea now of what people are supposed to do," Anna says. "Could you tell me what they're doing wrong? For example, what are the most common mistakes?"

Over the next 20 minutes, Harold and the staff describe the most common mistakes, the most deadly errors, and some less common but still problematic mistakes, as Anna takes notes.

Anna focuses on the most common error, recapping a needle after use, and asks, "Why do people do this?"

"Some people don't know it's wrong," the nurse says. "For example, some nurses from other countries saw it done in their former hospitals, but it's wrong here. But most people do it because the sharps container isn't handy. It's supposed to be by the patient's bed but it can end up practically anywhere."

Harold is surprised to hear this. His job doesn't bring him into much contact with patients, and he had assumed the sharps containers were all in the right place.

Anna asks the same question — "Why do people do this?" — for the other high-priority mistakes and takes more notes.

Find the best solutions

Through Anna's questions, Harold begins to see his project differently. He decides to see if changes can be made to solve the most common problem, that of the sharps container not being in the right place.

"We should attach it to the wall by the patient's bed," he says. "I'll make sure that's done. That alone should reduce a lot of recapping errors."

(In real life, Harold and his colleagues would identify several more non-training solutions, but we're using a simplified story to make the process clear.)

Brainstorm activities

Harold also realizes that just telling everyone what to do probably won't work. They've had training and they're surrounded by signs, but they still make mistakes. There are so many rules that staff seem to have gone into rule overload. Also, the nurse points out, many people are overconfident about their abilities.

"We could try something new," Anna says. "Instead of telling people what to do, we could give them realistic challenges and let them learn from their mistakes. In each challenge, they'd have to make the same sort of decision they make on the job, and they'd see the consequence of their choice. For example, in one activity, if I jab myself with a contaminated needle and don't clean the wound properly, I get hepatitis C."

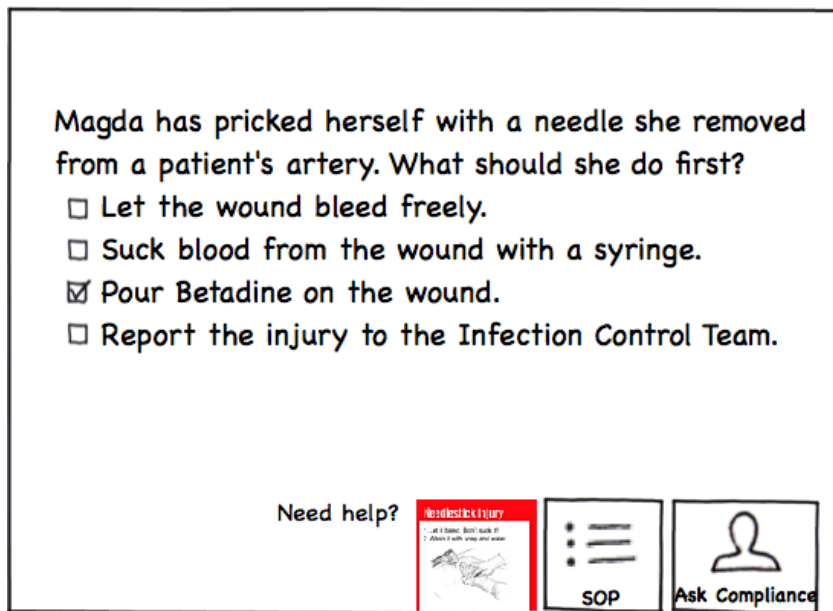
"So they'd see the consequences of their mistakes," Harold says, considering. "That would be more motivating than just being lectured at."

"That's the idea," Anna says. "Also, in each challenge they could get help by looking at the same sign that they have in the real world. We'd also include the sign in the feedback. That will remind them that those signs exist and are there to help them. The activities will model the behavior you want to see on the job — look at the sign for help and make a good decision."

Harold tentatively agrees to consider this, and while he and his colleagues get coffee and check in with their jobs, Anna quickly puts together a prototype.

Create a prototype for the client

Anna intentionally makes her prototype look like a sketch, so people will focus on what the activity asks people to do and not on its fonts or colors. Here's her prototype:



Anna shows the prototype to Harold and his colleagues. She explains that she doesn't present information before the activity. Instead, she just gives people the challenge, and they click the optional information at the bottom of the screen if they need help.

The optional information includes the real-world job aid that's on the wall of every room and that Magda could look at right now (the first help item). It also includes the SOP for people who like details, and a link that opens a chat with a real or fictional compliance officer.

In Anna's mockup, an over-confident person hasn't looked at the job aid and decides to pour Betadine on the wound. Here's the feedback they get:



"For every choice people make," Anna explains, "we show them what happened and show the applicable part of the job aid. This reminds them that those aids exist and makes sure that they see the right procedure whether they chose correctly or not."

Harold and his team like the prototype, although Anna needs to delete the "ask Compliance" option because they don't have the budget for that. In fact, the budget is pretty limited.

"We'd need several activities like this to cover all the major mistakes," Harold says. "Wouldn't that cost more than the course I was originally planning?"

"We can keep the cost the same," Anna says. "We'll spend more time on design, but our production costs will be lower. The slide deck used in the live course had 112 slides. If we tried to turn that into a conventional online course, we'd not only have a ton of slides to produce, but we'd also have to use bells and whistles to make the information slightly interesting. Instead, we'll just design activities like this one, using the multiple-choice feature of my elearning tool. We won't have to design information slides, because we'll link to copies of the real-world job aids."

Harold considers this for a moment. "My boss will want to make sure everyone is exposed to all the information," he says. "But if we include the information in the feedback every time like you've shown, everyone is still exposed to everything. They just see it through activities, not a boring presentation. I like it."

Create prototypes for learners

Harold shows the prototype to his boss, who gives the go-ahead. Then Anna talks to Harold to get the details she needs to write three realistic activities. Using word processing software, Anna writes drafts of the activities and sends them to Harold, who makes sure they're correct and realistic. He doesn't have trouble picturing the activities because he's seen the prototype.

Anna quickly develops the three typical activities as clickable slides. They look very plain, like the first prototype she developed, because she wants people to focus on the challenge and how the activity works, not the colors or fonts she used.

In an ideal world, she would watch some learners try the activities and ask for their feedback, but the budget is limited, so Harold runs the test on some workers during their break and passes along their feedback. With a few tweaks, Anna and Harold decide they're on the right track.

Create an outline

Anna suggests making the activities available for people to access whenever they have free time, but Harold still wants a formal online course that he can assign to people. So Anna puts together a high-level outline that shows which job roles will see which activities and the order in which the activities

will be presented. She starts with the easier activities and follows them with more challenging ones. She just briefly describes each activity in the outline; she doesn't write a script.

The outline shows that there won't be any information presentation in the course. Instead, each activity will include links to optional information, and the appropriate sections of job aids will be shown in feedback.

Harold makes some changes and approves the final outline.

Finish writing activities

Working in batches, Anna writes the activities identified in the outline, with Harold's help. While she waits for Harold's feedback on one batch, she develops the previous batch in her elearning tool to make sure they'll work how she and Harold want. Soon, they have a collection of challenging decision-making activities. Some of them apply only to people in specific job roles, while others apply to everyone.

Now it's time to put the activities together and create the course that Harold wants. Anna opens her elearning tool again, this time to tie everything together.

Put it together

Welcome screen. Anna presents the course as a gamelike challenge: "Can you avoid infecting yourself or others in some tricky situations? Try this challenge."

There's no narration because people who work in hospitals can read, and a narration budget is better used to create challenging activities.

Choose your job. Anna lists a few job categories and asks learners to click the one that applies to them. From now on, people will see only the challenges that they'd actually face on the job. For example, people whose job is to draw blood won't waste their time deciding how to pass a scalpel in surgery.

Activities. Anna tells learners that their choices aren't being tracked. She encourages them to explore and see what happens when they make different choices. Then, instead of presenting any do's and don'ts, she plunges people into a series of activities, all designed to tempt them to make the common mistakes.

Each activity includes optional links to job aids and other real-life references, and the applicable section of the job aid appears in all feedback.

People can go back and make different decisions in any activity, whether they chose correctly the first time or not.

Debrief. After the series of activities, Anna presents a short debrief that helps people see the broader concepts that connect the activities. For example, she points out that in two scenarios, people found it hard to follow the correct procedures because they hadn't set up their stations correctly. This highlights the concept that not following one set of procedures can cause failures in the next set.

Assessment. Harold's boss wants Anna to include an assessment, so now she tells learners that their choices are being tracked. Then she gives them the same kind of activities, which still link to job aids because those aids appear in real life. The only difference is that Anna is tracking everyone's choices, and they don't get to try again if they make a mistake.

Anna sets a difficult passing score. If someone fails, she sends them to more activities that cover the specific mistakes they made, and then they take the assessment again.

Anna wants people to continue to practice after the course, so she suggests that she design additional activities to be sent to people every few weeks. Harold says he'll consider that, but first he wants to deliver the conventional course that he promised to his boss.

Implementation

Anna puts the activities on the hospital's LMS, and Harold creates a simple internal marketing campaign to encourage people to try the challenge. He targets not only learners but their managers as well.

At Harold's request, maintenance staff attach the bracket of a hazardous waste container to the wall next to every bed, which should reduce the temptation to recap needles. (Again, in real life, there would be many more non-training solutions.)

Initial evaluation

Soon, Anna and Harold have their first results from the assessment that Harold's boss wanted to include. Several people fail in their first attempt, but everyone passes after going through the remedial activities.

Anna interviews some learners to find out which aspects of the materials helped them change their behavior, and which didn't help. She makes some changes to the activities as a result.

After the course has been live for a few months, Harold reports that the sharps errors have decreased. It looks like the hospital could be on track to meet the 8% reduction in errors, but it's not clear.

Spaced practice

Harold's boss is pleased with the initial results so, following Anna's recommendation, he finds additional funding for reinforcement activities. These are just like the activities in the course but are sent as links in email, one every couple of weeks.

As a result, people continue to practice making decisions and seeing the consequences, and their new behavior is reinforced.

Some staff suggest interesting real-life cases that can be turned into activities, and when there's an outbreak of an infection at another hospital, Harold has Anna turn it into a branching scenario that causes a lot of discussion. People are paying more attention to the dangers of sharps.

Ongoing evaluation

Harold's hospital continues to keep an eye on the error rate as it goes down. Encouraged by the change, the safety officers decide to crunch the data in more detail. They identify a specific mistake that they'd like to see reduced, so Harold asks Anna to make some additional activities focusing on that.

As a result, the error rate goes down more, and the hospital is in a good position for the big safety report.

The story was super-simplified

To keep the story simple, I chose a basic problem and condensed a lot. For example, I had Anna and Harold identify only one non-training solution, when normally there are many more. There were probably many other reasons why people were ignoring proper sharps handling procedures, but we skipped them to keep the story simple. I had Anna spend most of her time on training design because that's where most of you are starting from.

I had Harold play the role of both client and subject matter expert so you didn't have to keep track of more characters. Finally, I had Harold resist some of Anna's ideas, such as having no "course" and using spaced practice, so you could more directly compare Tina's and Anna's solutions. I wanted you to see that even a minor change — focusing on activities instead of an information dump — can have a powerful effect.

Even with all these restrictions, Anna's solution was more effective than the conventional one designed by Tina. I'd argue that it was also more efficient, as you'll see in the next chapter.

What's the difference?

Both versions of the story limited the training part of the solution to elearning. However, Tina and Anna took very different approaches.

What were they thinking?

Earlier, I asked you to consider how Anna would respond to Tina's beliefs about her job. Here's how they describe their jobs and tasks.

Tina: The client views me as a course producer.

Anna: The client might view me as a course producer in the beginning, but soon they see me as a partner in improving performance.

Tina: The only design I do is course design.

Anna: As I help the client identify the best solution for each aspect of the problem, I might design job aids, identify ways to help people share information, or suggest improvements to tools or procedures.

Tina: In a course, I mostly design information.

Anna: In a course, I mostly design activities.

Tina: I push information at people by making them read or listen to it.

Anna: I let people pull information when they need it to solve realistic problems.

Tina: My questions ask people to recall information.

Anna: My questions ask people to use information to make decisions in realistic situations.

Tina: The client identifies the information that I should provide.

Anna: The information I make available is determined by the activities, which themselves are determined by what people do on the job.

Tina: I make an online course engaging by using narration, images, animation, and clicking.

Anna: I make an online course engaging by challenging people with realistic problems that affect their jobs or lives.

Tina: I don't let anyone skip what they already know.

Anna: I challenge people with activities that show them their own knowledge gaps or prove their correct knowledge.

Tina: I evaluate the course by asking people if they liked it and giving them a knowledge test.

Anna: I evaluate the project by seeing if the performance measure we chose at the beginning has improved.

Tina: If people understand the information, I've done my job.

Anna: If the performance measure has improved, I'm happy, but I might not be done.

Tina: Once the course has been delivered, I'm done.

Anna: The client and I continue to reinforce the new behaviors by providing spaced practice. We also examine the performance measure more closely to identify ways to fine-tune the solutions.

What process did they use?

Tina used a version of the ADDIE model. She didn't follow the model as it was intended to be used, but her interpretation is common.

Analyze: The client says they need training; therefore, they need training.

Design it all at once: Write a big script or design document that describes how you'll present and test the client's content. The document describes everything that will happen in the training, word by word, and the client understands that once they approve it, changes will be hard to make.

Develop: Turn the script into training materials.

Implement: Deliver the training as an event.

Evaluate: Ask the participants if they liked the training.

Anna followed a process that looks more like this:

Evaluate: Identify how the success of the project will be measured.

Analyze: What's the performance problem? What's causing it? Will training help? If so, what type of training? What other solutions could we try?

Design at a high level: Brainstorm activity ideas for the training aspect of the solution. Prototype and test a few typical ideas. Change the ideas if necessary. Prototype again if necessary. When the prototypes are solid, write a high-level outline showing how the activities (still in idea form) will relate to each other and fit into the learners' workflow.

Develop in batches: Write the full content of a few activities in a simple text document and get feedback from the SME. Develop those activities and get feedback. Refine the developed activities if necessary, and then write and develop another small batch. Maybe go back and change the outline. Maybe change the prototype or throw out some earlier ideas.

Implement: While you were designing activities, others were implementing the additional solutions that emerged during the analysis. Now that the training part seems ready, you release it, maybe to just a subset of learners, and see how it goes. Maybe you make some changes and then release it to a larger group. Maybe the training is an event or maybe it's just some on-demand activities or how-to information. Maybe it's all of the above. At least part of the release probably happens over several weeks or longer, because you've designed activities that are spaced over time.

Evaluate and tweak again: Evaluate early results by looking for progress toward the original goal, interview some learners to find out what works and what doesn't, and adjust the project as it continues.

What happened next to Tina and Anna?

Tina delivered what the client thought he needed, an online course. Her course didn't change what people did on the job, but since no one required that, it didn't matter. Tina's course was a commodity, a product that many people around the world can create for a lower price. As a result, the next time Harold needed a course, he found a less expensive provider.

Anna delivered what the client actually needed, an improvement in performance. She provided a custom service, not a commodity. She made Harold look good to his boss by helping him solve a problem, and during the process she learned how his hospital worked. As a result, the next time Harold suspected his team had a performance problem, he called Anna.

Summary

Many designers view themselves as course producers. They think their job is to create the course that the client wants, using the information that the client provides. This often results in an ineffective information dump.

Action mapping asks you to expand that role, so your job is to solve the client's problem. When a client comes to you expecting training, you'll turn the conversation to the performance problem. You'll help the client analyze the problem and find the best solutions. If training is part of the solution, you'll create highly targeted practice activities. You'll design those activities in a way that allows for quick experimentation and confirmation, so improvements can be made at any point. As you learn more about the organization's problems, you'll become more like a performance consultant than an order taker.

If you do just one thing...

From your first contact with your client, act as if your job is to help them **solve their problem**.

*This is an excerpt from **Map it: The hands-on guide to strategic training design**, to be published in late 2015 or early 2016. It's a how-to book that walks you through the action mapping process as you apply it to a project from your job. While this example focused on elearning because that's where many readers are starting from, the book shows how the process applies to all types of training design and analysis, from simple projects to complex problems.*

Keep an eye on my blog at <http://blog.cathy-moore.com> to find out when the book is available.