

Why Performers Need to Know Why

By Peter R. Hybert

Summary

A client requirement surfaced a pointed question—is it necessary to teach performers “why” as well as “how” to do a task or job? If it is necessary, how can you accomplish it without going overboard on theory.

This article suggests that “why” is part of a conceptual framework that performers need to create in order to learn and apply the “how” effectively. The key is to embed the “why” information inside the process of teaching the “how” and to reinforce the “why’s” throughout the instructional process.

Dilemma

Imagine that you are a performance consultant. Your mission is to make people capable of doing their jobs as quickly and effectively as possible. You know one of the best ways to improve effectiveness and to reduce the cycle time of almost any training or development activity is to eliminate unnecessary content.¹ Most people err on the side of “covering everything,” so they try to touch on a great deal of content, rather than focusing on a manageable set of content and then taking the time to let participants work with it so they can build skill or capability.

But imagine that you have a client that needs to build training to teach employees how to manufacture a set of pharmaceutical products and IT MUST INCLUDE THE WHY’S behind what they have to do! It doesn’t sound like a big deal...but think about it.

If: All work in this particular industry is governed by procedures.

Then: You must not vary from them, ever. You are not supposed to work from memory—you are supposed to look up/print the current procedure and follow it. (It is not really OK to even keep a printed version around to refer to because you can’t be certain it is current.)

Question: In this situation, why do the performers have to know “why”?

¹ When people can’t perform after training, the instructor responds “we covered that” and it is usually considered an acceptable answer—but it shouldn’t be. Too often the culture rewards instructors for knowing all kinds of esoteric detail. In that setting, there is no worse crime for an instructor than seeming to not know some piece of content. But the focus should be on the learners’ capability to perform. If they can’t, there is a problem, whether it was “covered” or not.

When would the question “why” come up? Below are two example situations.

1. If a performer asked “why do we do XYZ this way?” a perfectly sufficient answer would have been “because the procedure says so and we can’t vary.”²
2. If a performer made a mistake (i.e., varied from the procedure) they might ask “why does it matter that I did XYZ?” But, the business can’t have performers thinking they can make individual value judgments as to whether procedural requirements are mandatory or recommended. It doesn’t matter—in this case, the performer would still have to record it as a “deviation” (a bad thing) and follow the defined procedure for resolving the problem.

At this level, it doesn’t seem that knowing “why” is really necessary and including it in the training will add time to the delivery and development of the training. More importantly, it seems to add the potential of risk if performers started to think that some procedural requirements were more important than others. We shouldn’t do it.

But, the regulator was requiring it. And, the client team thought it was a good idea too—they had all personally experienced learning something and having the light bulb go on when they understood the “why.” Theoretically, you shouldn’t need it. But, intuitively, it seems like a good idea. And, since it was a requirement for this project, we consultants had to find a way to be OK with it so we took a closer look.

A Closer Look

One thing we³ knew was that telling people “why” was treating them like adults instead of children. The workforce had experience, they were smart, and they were engaged. They knew they were manufacturing medicine and that mistakes they might make would matter to the company and the patients that used their products. Morale then, was one reason for including the “why’s” but it didn’t feel very tangible.

The next place we looked was the performance environment. The procedures were very precise so they were difficult to memorize and they changed frequently, often in small but important. And the procedures often contained references to other procedures. Since keeping paper copies around was not allowed, the performer would have to go to a computer terminal to look at or print a procedure.⁴ But even with the computer and/or a print out of the procedure, the performer really needed a conceptual framework on which to hang all the detail inside the procedures as well as changes that emerged.

This conceptual framework was the missing link! The “why’s” were not simply more information—they were part of the conceptual framework. If someone understood the intent of the manufacturing process, the purpose for various operations, and how the equipment worked, they would “get” what

² Yes, this is very similar to your parents answering a why question with “because I said so.” Not satisfactory but the answer doesn’t change...you still have to go to bed or clean your room.

³ We worked very closely with a team of about seven client employees and when you see “we” in the article, it generally refers to the combined team of PRH Consulting and client resources.

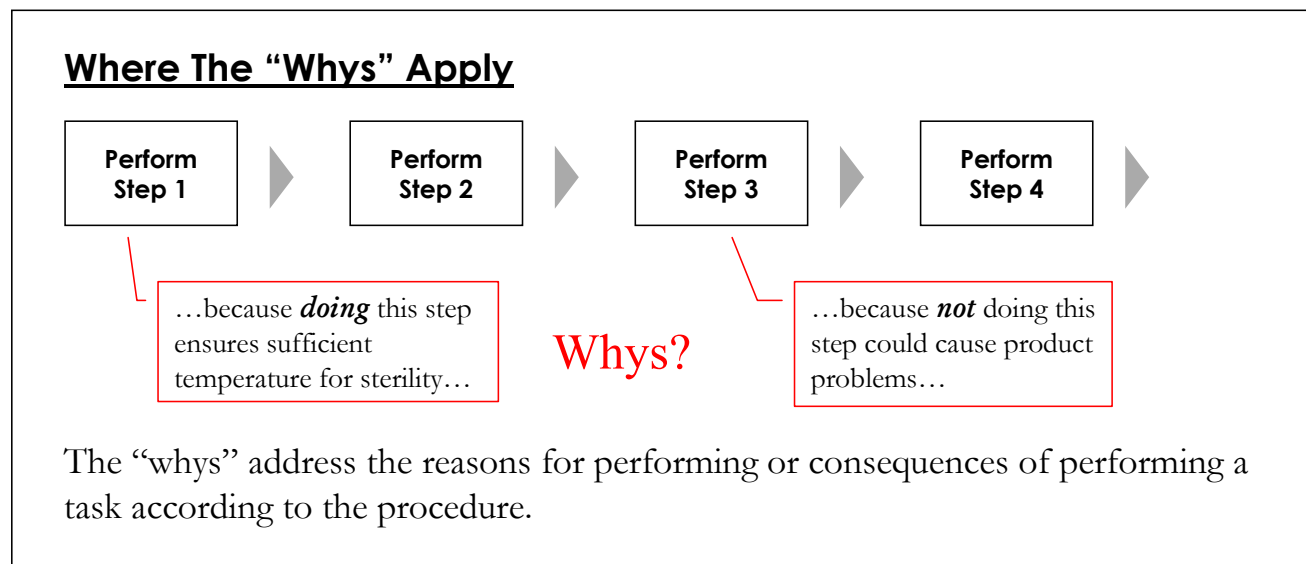
⁴ In addition to becoming obsolete, paper print-outs aren’t very sterile and couldn’t be left in the environment. And, though we don’t mention it in the article, for some operations they needed to put on sterile gowns that took over 15 minutes to put on. If you needed to leave the area for a procedure, that had a cost in time and convenience.

to do with new information and changes. And, they would be less likely to make a mistake because they would “get” what they were trying to do⁵.

This felt more like a performance-based rationale, or at least a cognitive reason. People don’t just like knowing “why,” they need to know “why” to be able to learn the “how.” But we’ve all been bored by someone dumping a bunch of theory on us when we were really thinking “just tell me what to do.” So how would we deliver the “why’s” effectively?

How We Did It

Of course, we didn’t sit and think about the above until we figured it out before we started work. In reality we were figuring out the above in course of our normal design/development process. We worked with operators and technical experts to learn the content, we created drafts of job aids, conceptual graphics, lab exercises, etc. and we worked with the client’s internal training people to figure out how to meet the FDA requirement and still manage to train (and qualify) operators on the process.⁶



⁵ Incidentally, we have noticed that in many environments the details explaining performance are readily available but the big picture is missing. Sometimes it is the fault of us training folks because we try to be task-specific or to make sure we aren’t being too simplistic and, in the process, don’t sufficiently cover the concepts. And sometimes it is the fault of the subject experts and master performers who provide the content—they have constructed a “big picture” over their careers and have reached the point where it is almost subconscious.

Either way, effective learning requires establishing the big picture. Some can be provided upfront, some has to be learned and constructed through practice and experience.

⁶ In the future, we may write more about the qualification portion of this or similar projects. The main element is that qualification results from observing actual performance as much as possible. The trick was doing that while not allowing non-qualified operators to manufacture!

We decided that the key was to deliver each “why” in the context of where it was needed. And, to reinforce it. Each “chunk” of training had a pre-defined structure for the content. We also pre-defined where the “why’s” would go. They were in the overview, in the content presentations, in the demos, in the exercises, in the quizzes, and in the final qualifications. The first time the instructor would provide the answer but subsequently it varied so that the learner not only heard the “why’s” but had to recall them and even explain them. But the “why’s” were direct answers to specific questions about specific activities in the process so they were always in the context of a task.

What Did We Learn?

One interesting outcome was that some of the why questions (usually generated by the operators) initially stumped the technical experts. The culture was so accustomed to “because the procedure says so” that much of the rationale had eroded from knowledge base. More than once our technical experts had to go do some research to find out the answers...and it was always worth it.

Another interesting discovery was the sheer volume of know-how (and know-why) that exists at the detailed level in an audience group that does the job everyday. Again, having the framework is key to providing context. Usually that framework was a section of the manufacturing process but it could also have been driven by a specific piece of equipment or a material.

One key learning was that the “whys” tended to reinforce important aspects of the performance. They repeated. For example, a performer may learn that the reason for bringing a particular piece of equipment to a specific temperature is to ensure sterility. He or she will probably notice that the temperature needed to ensure sterility is the same regardless of which equipment is being sterilized. They will begin to form a big picture concept about the process and working in a parenteral⁷ environment in general.

Finally, it highlighted (again) the limitations of procedures as a means of communicating know-how. We’ve been in many companies who have procedures that describe very specific details but which don’t include the conceptual framework needed to absorb those details.⁸ Procedures are not training. In many cases, they have been added-to and corrected so many times that they are not even an effective reference document. They have an important purpose but need to be augmented by training and testing to ensure the performers are actually capable of doing the job.

What Else Did We Do?

This project used a number of elements to make the resulting training effective and replicable. We designed the training to fit outside and around the procedures and left the procedures as the source for specific details so that the training would be as robust as possible to future changes in the procedures.

⁷ Parenteral medicines are injectable medicines.

⁸ As an aside, we did a project for another client in which we created a one-page job aid to provide that framework for an internal process that required accessing multiple procedures. Once the work was demystified, the procedures could then do their job.

We also created a set of templates for specific types of learning activities so that we could put a team of seven developers on the project and generate about 4 weeks of hands-on training in about 11 weeks of calendar time (starting from an approved design, of course).

And we came up with what we thought was a pretty nifty document and page layout that gave us lots of room to use graphics and minimize text while still structuring the instructional process.

Our clients tell us they are happy with both the ROI (they did their own internal study) and the effectiveness of the training. And, they've told us that when they are ready to do the same work with another work area, they will call us back. We are looking forward to it.