Case Study: Iris Daniels

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Prototype Review Meeting

Finally, the project was corning together! Iris Daniels and her team had just agreed to create a prototype and present it to the seven-member consortium of software users. The prototype would show both instructional and technical approaches of the computer-based training software program that they wanted to see developed. Iris was hopeful that the prototype would be positively received by all of the consortium members and would enable development to proceed. Iris had worked for Jim Huggins on many projects with their client, Hill Industries, and knew the importance of prototyping to communicate design, instructional approach, or feasibility. But getting to this prototype had taken longer than anyone had expected. This was Iris's first time working with an international team and, in addition to having to reach consensus regarding the prototype, she had to learn the corporate cultures of the organizations who made up the consortium.

Two Years Ago: Initial CRT Design

Hill Industries depended on a complex suite of manufacturing management software products, used by thousands of engineers and product designers within Hill and its suppliers. The software was developed by French software developer Lapin. For years, all of the training on the software had been in the classroom, led by a trainer. Several years ago, Hill Industries joined a consortium of large companies from several countries. About two years ago, the consortium members began to push Lapin to offer computer-based training (CBT) for the software. That request fit with Lapin's business strategy, so they began developing the CBT.

The initial version Lapin produced had disappointed some members of the sevenmember consortium, especially the U.S. Americans. The CBT was attractively designed and very well written, especially considering that the developers were all working in a second language. However, it was not very interactive. For example, a lesson about designing a piston consisted of descriptions for the learner to read, followed by step-by-step exercises to be completed using the software. Because the lessons were not written in an interactive authoring system but in a word processor, there was no feedback. In fact, the learner could do anything or nothing in the exercise and the lesson did not respond at all. Learners had little control; they could only access a menu or click "Next" or "Back."

Crt Review Meeting

The Lapin development team had demonstrated the CBT at a consortium meeting. The consortium members were happy to have something with which to work. However, the U.S. Americans pushed for a more interactive design, with simulations, case studies, and feedback to help learners improve their performance. Still, Lapin believed that there were technical constraints, beginning with the requirement that the CBT run on a wide variety of operating systems and hardware, sharply limiting what development tools would work. The consortium members agreed that the technical issues would work themselves out over time, as training moved to a web environment and the development tools improved. Far more difficult, it seemed, were the expectations of which training approach made sense for the users. The design that Lapin had produced was one with which it was comfortable. The U.S. Americans, influenced by their instructional design training, were expecting something more task-oriented and interactive. Iris began the discussion by raising questions about practice, feedback, and transfer. The blank stares from the French and German participants were a surprise to the U.S. Americans.

Jonathan Naik, a U.S. American engineer from another large Lapin software customer, described some of the CBT with which he was familiar. "In the past, we have demonstrated the procedure, then had the learner practice it, decreasing the amount of help and reinforcement as he or she continued to practice."

"Are you sure that's what learners want or expect now?" was the polite but incredulous response from Jacqueline Colbert, the lead training developer from Lapin. She had never used such a design and wasn't quite sure what to think of it. "I think they might want a theory section, and then a problem to work on, don't you? Maybe we could run a screen capture video to demonstrate the task. That would take care of it." For the rest of the afternoon, the consortium talked through various design approaches, without coming to any agreement. Not only could they not agree, but it seemed that, though everyone was speaking English, they were not communicating. Iris and Jacqueline left the meeting together, talking about the design of Lapin's CBT. Back in Jacqueline's office, Iris showed her some CBT and web-based training her company had developed for other large clients. "We have always tried to avoid any long sections where the learner is just reading. We've used a couple of case studies, walking the learner through the first one. The learner is always doing something, maybe clicking or filling in a field to respond to a question or problem, but it's always related to the task or procedure. That way, from the beginning, the learner is practicing," Iris explained. Jacqueline went through a portion of Iris's demo, then responded, "To me this seems as if it might work, though I think some users would think it's too simple. I'd still like to have a theory section to explain what it is we want the learner to do, and why."

When the user consortium met again the next morning, there were two agenda items one on design, the other on technical standards. They decided to start with design. Dieter Hoffman, the engineering representative from a German aircraft company, asked if he could speak. Dieter spoke only rarely at the consortium meetings but was always well prepared and worth listening to whenever he did speak. He plugged his laptop computer into the projector and began what appeared to be a prepared presentation. Very thorough and nuanced, he restated everyone's positions on design, including both theoretical and practical view points. He observed, as no one else had, that instructional design language and thinking pervaded U.S. American, but not French, training. Indeed, French universities generally do not have anything like instructional design in their programs. "So yesterday's discussion," Dieter observed, "did not move us forward, but only around each other."

As the meeting continued, Iris observed that some of the things she had said to Jacqueline in their private conversation yesterday were coming out in the meeting. Jacqueline shared with the group that, after some consideration of the U.S. American approach to having practice and feedback as part of the CBT, she felt it was appropriate. The consortium didn't come to any agreement on design, but at least they understood each other's positions a little better, thanks to Dieter.

The afternoon session dealt with technical standards, about which there was little disagreement. The only reasonable way to achieve the cross-platform compatibility necessary was to adopt Internet and web standards, avoid plug-ins, and use the two major web browsers. The decision not to use plug-ins took a while to sort through, but the objective was that the CBT should run the same on Windows NT or 2000 PCs and several varieties of Unix. Plug-ins might not exist. for all those platforms, or they might not work identically. With a little better understanding on design and agreement on technology, the consortium members headed home from the meeting, agreeing to meet again in three months in the United States.

Back In The Office

Once back in the office, Iris debriefed with Jim Huggins about the plans for meeting with Hill Industries in a day or so. Jim thought the technical decisions made at the consortium meeting were good, but the design decision (or lack of it) baffled him. Then, when Iris talked about the way the meetings went, a thought struck him. "OK, let me see if I understand. During discussions in the meeting, you and Jacqueline didn't seem to connect. She basically used the meeting to report on what she had decided. Discussion seemed to go nowhere." "Right," Iris replied. "Then, when we talked outside the meeting, we had a good exchange of ideas. However, the next morning, she reported some of our discussion as her ideas."

"Got it. So maybe what you want to do is make sure you have more one-on-one discussions with Jacqueline. You might also want to meet individually with the other French people, hash out ideas, then use the meetings as a forum where people can bring decisions to be ratified," noted Jim. "I think we might find that different cultures view the purposes of meetings differently. As I recall my business trip to France last year, the French are more comfortable making decisions outside of public meetings. The U.S. American idea of coming to a meeting for the purpose of discussing and deciding is quite literally foreign to them," continued Jim. "Meanwhile, why don't we prototype a short learning module that demonstrates our design ideas and that incorporates elements of the French approach? Let's talk it over with Hill and see if we can build something that will communicate our ideas better than the discussion did."