

Ebook

Accelerate Technical Growth: The Tech Leader's Guide to Hands-On Learning



Experience – it's the key to your employees' skill development.

The tech industry is at a critical moment where a company's long-term success hinges on the skills of its workforce. In just one example, 70% of cybersecurity professionals cite a cybersecurity skills shortage in their companies. Experience-based hands-on training is needed for leaders to have confidence that training translates to increased productivity and a workforce capable of solving tomorrow's problems.

Also called experiential learning, hands-on training is learning a subject or skill by actively doing. The 70-20-10 learning design model asserts that a staggering 70% of employees' knowledge comes from hands-on experience. Doing instead of memorizing helps employees think critically, apply skills in new ways, and learn from mistakes as they happen.

Anatomy of a hands-on learning assignment

One form of hands-on learning that effectively bridges skill gaps uses projects that simulate real-world experiences. These projects offer learners space to experiment, evaluate their understanding, and reflect on their performance. They can then iterate on the projects to deepen their understanding of the subject.

David Kolb, an expert in experiential learning, stresses that the experimentation and reflection stages are vital for learner retention. “Time spent practicing does not necessarily lead to learning and improved performance,” he says. Knowledge results not from simply having an experience but transforming the experience into skills and action.

For experiential learning to succeed, it needs a structured approach. **When building hands-on learning projects for your team or sourcing hands-on learning projects from learning providers, look for projects that:**



Simulate real-world business scenarios



Use scaffolding to build skills toward progressive complexity



Offer a safe space for learners to fail

Criteria 1

Real-world context

Criteria 2

Tasks that teach, not show

Criteria 3

Safe spaces to experiment

Criteria 4

Project guidance tailored
to the learner's comfort

1. Real-world context

Before learners dive into a new technical learning experience, they need to understand the assignment's scope and its relation to a workplace scenario. "When creating hands-on projects for Udemy Business Pro, we encourage the instructor to write a project overview as if the learner is their employee and they are their manager," says Melissa Belardi, Udemy Learning Designer. "This simulates the experience an employee in a given field has when assigned a project by their boss."

An effective framing of a hands-on learning project helps learners understand how the skills they're about to practice relate to their job.

For the learner to make the most of their training time, a project overview should address the following questions:

What is the learner's role in this project?

Who is assigning the project to the learner?

What is the learner expected to deliver to complete the project?

What are the basic requirements for that deliverable?

2. Tasks that teach, not show

Technical teams usually divide projects into a series of tasks in a management tool like Jira or Clubhouse. Employees are assigned a task and can see how it relates to the whole project, but they aren't given specific guidance on how to complete the task. That's where their experience and training come in.

Project tasks should replicate this real-world scenario so that learners get accustomed to uncovering the how of an assignment themselves.

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By attempting tasks on their own, learners can try to apply their knowledge and skills in real work scenarios with the support they need in case they get stuck.

Melissa Belardi, Udemy Learning Designer

3. Safe spaces to experiment

Learning from mistakes is crucial to skills retention. Workspaces and virtual sandboxes offer learners a safe space to experiment with new skills without fear of breaking or deleting something business-critical.

Trial and error is an essential piece of hands-on learning for cloud computing, cybersecurity, or software engineering technologies.

For example, learning in an actual AWS instance helps teams get comfortable with the tools and put learning into practice quickly without jeopardizing data and processes. It's a more secure training option for organizations. To practice a skill, learners don't need to input their company credentials or upload company data into a workspace.



4. Project guidance tailored to the learner's comfort

Repeated practice only gets you so far if you're using the wrong techniques. Employees need to learn the most efficient uses of a new tool or language. Immediate access to problem solutions is essential in hands-on learning projects for learners to identify concepts to improve on. It also builds confidence that they're ready to tackle these same challenges in their work.

At Udemy, we recognize that each learner benefits from different levels of guidance when completing an assignment. We structure the projects in Udemy Business Pro Labs to have **three guidance levels**:

- **Follow along:** Learners access step-by-step instructions
- **Structured challenge:** Learners receive project tasks and resources per task
- **Open challenge:** Learners have only the project assignment and a library of resources

These **multiple guidance levels** replicate real-world work experience while providing learners with instructions and resources to analyze their work and know they're on the right path to skills retention.

1. Follow along

Learn how it's done by following an expert's comprehensive instructions. The learner receives a project overview, step-by-step tutorial, and related resources to complete the assignment successfully. Learners follow along with detailed instructions on how to complete the project accurately.

2. Structured challenge

Learn by completing project tasks and checking your work against solutions. The learner's "virtual manager" shares an overview of the project, provides resources that may help with each project task, and provides instructions on how tasks scaffold up to the completion of the assignment. As learners attempt each project task independently, they can check in with the virtual manager's solution to check their work.

3. Open challenge

Learn by consulting resources to manage the project completion on your own. The open mode asks learners to go one step further in their ability to manage a project independently. The learner receives an assignment from their manager and a resource library. It's then up to the learner to effectively use the provided resources, mimicking the experience a software engineer or someone in a similar position might have.



Experience hands-on learning with Udemy Business Pro

Hiring more employees to fill a skills gap is a costly endeavor out of reach for most companies. But investing in existing talent through training rooted in experiential learning not only limits hiring costs it increases employee productivity. Your teams acquire new skills as they learn how to leverage these skills on real projects for your company.

The hands-on Labs assignments in Udemy Business Pro create a-ha moments for learners as they connect the dots from skill acquired to skill applied. [Get in touch with our learning experts](#) to learn more about how hands-on training accelerates learning outcomes.

About Udemy Business

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