



# Scaffolding for L&D

Like learning to ride a bike, employees need gradually reduced support to learn in the flow of work.

BY CATHERINE LOMBARDOZZI

**T**o get a clear picture of scaffolding and its benefits, consider how we teach youngsters to ride a bike.

We start little kids on tricycles so they get the hang of peddling and steering. Then they ride miniature grown-up bikes with training wheels for extra support. All along, we teach them rules of the road and get them out riding.

Eventually, we remove the training wheels, knowing they are already balancing quite a bit more than

they realize. We keep a hand on the seat as we run alongside. At last, we let go—and finally, suddenly, our charges are riding alone, filled with pride and joy.

Still, we stand ready to coach them further, to guide them through the transition to a gear-shifting bike, and to help them become more confident about making biking decisions on their own.

The kind of learning support we give to novice bikers has a technical name: scaffolding. This age-old technique of providing learning support and

gradually reducing it over time has taken on new importance in L&D as people strive to learn in the flow of work. Researchers have studied this practice in a range of contexts, and their analysis has revealed important concepts and practices that should influence how we organize scaffolding in workplace L&D.

### Why scaffolding is needed

In modern contexts, L&D departments are eliminating or shortening structured courses and offering curated learning resources and activities that workers can access when most timely and relevant. Although that is a well-reasoned approach in many instances, many employees struggle to learn in this environment. While attempting to learn in the flow of work, the whitewater nature of that flow can make it challenging. A 2014 CEB study revealed that, despite having access to an abundance of resources, more than half of employees surveyed found it difficult to find learning resources, engage productively with them, and apply what they had learned. Scaffolding is clearly needed.

Scaffolding adds strength to a variety of teaching and learning strategies. When training time is dedicated to essentials, people benefit from more support in the work environment to continue acquiring knowledge and skill and take their performance to the next level. Scaffolding can minimize the challenges of experiential learning and prevent some of the possible failures along the way. People might also need scaffolding to help knit together the concepts and skills they learn through disparate resources into a more comprehensive form of skilled performance.

### Imperatives of scaffolding in the modern workplace

Each talent development project has its own nuances in terms of specific learning needs, depth and complexity of the knowledge and skill being developed, and job contexts. In general, though, scaffolding encompasses four arenas: resources, people, on-the-job learning, and self-directedness. Here's what you might consider:

**Curate reference and learning resources specifically to scaffold learning.** Our industry has long been touting the benefits of curating learning resources, and one of them is, of course, that an effectively curated selection of resources can provide just-in-time assistance with learning. Resource types are myriad: job aids, performance support pop-ups, articles, videos, example documents, books, etc. It's relatively easy to collect a substantial set of potential resources on a topic but often difficult for people to identify what will help them develop an understanding of a particular task.

## Theoretical Grounding for Scaffolding

Cognitive psychologists have theorized that learning is at least partially the result of interpreting experience through a lens of social interaction, especially between a learner and a more experienced other. These theories have given us several key concepts that have been tested and elaborated over the years as instructors and developers have implemented these kinds of sociocultural strategies to ensure learning.

**Scaffolding:** A process of providing customized levels of support for learning and performance that is gradually scaled down as increasing competence is achieved. It is the art of providing the right kinds of supports and knowing when learners are ready to move ahead or to perform independently. The process of gradually scaling back supports is called *fading*.

**Zone of proximal development:** This is that sweet spot just on the edge of what a learner is able to do—the place where a person is primed to move from being able to do with guidance to being able to act independently. Learning in the zone can be facilitated by a supportive other who can assign material that is just difficult enough to challenge but not so difficult as to stymie learning—or by other social interaction that provides support to learn from experience. With coaching and encouragement from the side, people are able to develop the knowledge and skills they need and gain confidence so that they can perform effectively.

**Legitimate peripheral participation:** This is active engagement in part of a complex task and real contribution to the work of a group as part of an ongoing effort to learn to practice as an expert. Rather than being given made-up work or observation assignments, people new to a role are given real work and provided with the support and feedback they need to continue to develop their knowledge and skill toward full expertise.

**Self-efficacy:** This is the belief that a person is capable of a certain achievement—it's idiosyncratic to specific activities. An individual can have strong self-efficacy in writing an academic paper and little self-efficacy in skiing (not that I would know anything about that). Self-efficacy is developed through personal experiences of success, observation of relatable role models, and direct encouragement.

To fine-tune your curation, identify the most challenging knowledge and skill areas that develop over time or are somewhat tricky to apply in the work context. Curate resources to specifically address those needs, and organize them so that the right components are easy to locate. Collate enrichment resources that are at varying levels of knowledge and skill, and encourage people to level-up gradually by distinguishing core, intermediate, and advanced skills and providing development recommendations at all levels. Technology-enabled personalized learning software holds promise in automating selection of appropriate supports as well.

One of the tricks of effective scaffolding is ensuring that these resources do not become ongoing crutches for activities that people should be able to undertake on their own. Some performance supports are meant to be permanent (for example, reminders about steps to take for infrequent transactions), while others are meant as temporary (such as scripting for customer interactions). Use your judgement to determine whether and when to fade out access to those scaffolds.

**Assign job tasks or roles with developmental intent.** Learning happens in the sweet spot where work is hard but doable. Providing support in that sweet spot is highly effective for advancing knowledge and skill development. Treat first-time assignments as apprenticeships, giving new-to-task learners substantial guidance and feedback. Facilitate stretch projects in a similar manner. Rather than recommend job shadowing as a primary early learning activity, give people significant ways to contribute. In that way, immerse people as quickly as possible in the full context of the job but provide the necessary guidance and learning aids to allow them to blossom. Also, consider whether a developmental progression is optimal; that is, seek to understand whether there is a natural order to learning new knowledge and skills, and make task assignments with that in mind.

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Employ the other means of scaffolding—curated resources, developmental relationships, and self-directed learning support—to enable learning in these new assignments. People are often energized by new roles, but they can quickly become demotivating

and troublesome if the proper scaffolds are not in place to ensure their success.

**Promote developmental relationships.** The most effective scaffolds are of the human variety—peers and managers who can provide breakthrough encouragement, feedback, and just-in-time instruction or coaching. To continue to learn on the job, developing employees at all levels need access to people who demonstrate required skills, who can articulate their thinking and processes, and who can give feedback on attempts to apply learning. You often need to make introductions; new people don't know the best role models and go-to experts. At the most advanced levels, look to put talented individuals together so they can prod each other to advance their knowledge and skills.

In addition to bringing people together, help role models, experts, and coaches understand their function. Thinking out loud, engaging in debrief conversations, and posing thought-provoking questions can be important development prompts, often more so than direct teaching. Mentors and coaches who consistently and effectively challenge people can play an outsize role as catalysts for learning.

**Enable targeted self-directed learning.** To manage their own learning, people begin with an awareness of what they need to learn and a preliminary vision of what it means to be knowledgeable and capable in a specific arena. This view may or may not be accurate. To take advantage of people's desire to improve, provide resources that help them self-assess and monitor progress.

You have several options here: Good role models and expansive descriptions of expected behavior can provide an accurate vision of what effective performance looks like; behaviorally anchored self-assessment tools can help people identify their own opportunities; and formal development and performance support systems can be designed to give employees a wider view of their demonstrable skills.

It also may help to prompt people to articulate learning and reflect on experiences. The rapid pace of work often leaves people feeling as if they have little time to think, which means they may not deliberately reflect on what they are learning. Simply asking people to articulate their knowledge and skill improvements in one-on-one opportunities, team meetings, or development plan updates can create a culture that recognizes and values learning and ongoing capability development.

**Catherine Lombardo** is an independent consultant, founder of Learning 4 Learning Professionals, and author of *Learning Environments by Design* (ATD Press); [clombardo@L4LP.com](mailto:clombardo@L4LP.com).