THE LEARNING CONSTRUCTION SITE: UNLEARNING AND REBUILDING NEW KNOWLEDGE

BY ADRIANO PIANESI

"Why is it, in spite of the fact that teaching by pouring in, learning by passive absorption, are universally condemned, they are still entrenched in practice?"

—John Dewey

I grew up and was educated in Rome, Italy. The European didactic style tends to be more theoretical and less interactive than that of the U.S. system. I remember how Signor Pumo would not acknowledge our presence in class, and Signora Arena would consider any question a personal insult. After lecturing for hours, Signora Bondi would draw a name from a little box, bingo-like, to select the student who would have to parrot back what she had said. Their classes were lifeless and lacked learning energy, the invisible force that breaks through when you have a glimpse of your own potential.

Since I started my career in another arena, when I moved to teaching, I was not compelled to use one particular technique. Instead, I was free to teach in a way that paralleled my own process of following my energy. I tried to tap into people's creative ability to learn collaboratively, break free from the fear of failure, and go with their ideas, wherever they might lead. Theories can change, practice might be revised, but the impulse to learn is as primal as life itself. I have found that what I call the "Learning Construction Site"—a supremely energizing and effective way to teach adults—releases that impulse

TEAM TIP

Adopt some of the principles and practices outlined in this article to turn training sessions in the workplace into fresh opportunities for collaborative learning and unlearning.

and the potential of adults for learning collaboratively in the workplace.

Hard Hat Area #1

We are expecting 14 people this morning, and I've set up three tables with coffee. Music is playing softly in the background. As people walk in, I welcome them, asking about their jobs and what they want to learn today. Conversation continues as more people enter. "Is this the right class?" someone asks, bewildered by the uncommon room setting. "Help yourself to some coffee, and let's find out," I reply. The door is open, and more people stroll in. Others start talking while stirring their coffee.

I make a point of introducing myself individually to each participant. I greet them and say, "Welcome! I'm glad you could make it. What's your name?" I recognize their voices from phone conversations I had with each of them before the class about what they wanted to learn. Their names are also familiar from the email I sent with the details of the course. Before class, I noticed that 70 percent of them had logged in to the introductory E-learning module I posted of the main course content.

It is now 9:16 a.m., and class is in full swing. On the table are a few guidelines that suggest conversation topics for this informal start. I ask the participants to make sure they know everyone by name, saying, "If you do not know each other, please introduce yourselves briefly." The class is about a new way to teach. A few minutes into the conversation, I say, "I'd like to know about your experience training adults in the workplace. Please turn to the person next to you and discuss it. At the end, I'd like to hear from you so we all will know how many years of experience we have in the room." In groups, partic-

ipants start linking their previous experience to the subject of today's class. Ten minutes later, I turn the music off to give instruction for the first learning activity.

In this article, we will break ground on the new idea of a Learning Construction Site (LCS) and discuss the four practices of designing, hosting, facilitating, and evaluating to alter the dynamic and simplify the complex work of releasing the potential of team learning in the workplace. The LCS borrows from several approaches and existing practices. However, it merges these approaches to create an original and integrated learning strategy applicable to new domains, like IT training or leadership classes.

Hard Hats, Supple Minds

Some ways of teaching are more effective than others; training is not simply a matter of taste, style, or personal gift. Moreover, the value of workplace learning in particular resides ultimately in how it is applied and what changes it produces. As a result, I have found that team learning and change are two faces of same process: the construction and transfer of knowledge in the workplace.

I believe that current practices of workplace learning coupled with the traditional mindsets of classroom training are inadequate for the "knowledge workers" of contemporary companies. LCS acknowledges that 21st-century employees step into the role of "knowledge builder" on a continuous basis and that their knowledge needs to change and be "rebuilt" regularly.

With these considerations in mind, the LCS was born. Unlike standard classroom training, it began to take shape when I first started preparing training materials interactively within a

training meeting rather than dictating the curriculum; when I insisted on having trainees perform collaborative, hands-on tasks in the class; and when I engaged trainees in dialogue with joint inquiries rather than forcing them to listen to me. LCS came to life when I started using music, drawings, and improvisation to engage the trainees in the content being taught—and watched them, incredulously, wake up and learn better. I immediately noticed how effective these practices were. LCS has yielded measurable adult learning results in the workplace over the past 15 years, from the Marine Corps Association to the Pension Benefit Guaranty Corporation to the YMCA.

The governing rule of LCS is "Don't listen to the instructor. Do talk to your neighbor!"
• Learners perform rather than listen, while engaged in work-like experiences.
• The instructor listens, improvises, and goes along with what the learning process becomes in the class.
• Learners interact with each other in a work-like environment during the learning process.
• Learners are given time, resources, and space to deal with unlearning.

The Four Cornerstones

As I mentioned, in a LCS, learners perform rather than listen, while engaged in work-like experiences. For example, in the first lesson of a beginning Spanish class, I might ask students to think about all words they already know and write them down. *Fajita, muchacho, hola, hasta la vista*. They discover that they know a lot more than they think they do! In this way, part of the work has already been done, and we have broken the ice. Spoon-feeding words would not have the same result. The activity allows students to search for new words first-hand with all the doubts, difficulty, and adventure of this experience. This is the principle of *experientialism* in action: realistic experiences in the domain of learning that result in instructional design based on creative, hands-on tasks. As such, this approach recognizes the importance of designing materials before entering the classroom and the need to engage the practices of the learning community that already exists. As Jacques Barzun pointed

out in his 1992 book, *Begin Here*, "It is not the subject but the imagination of the teacher that has to be alive before the interest can be felt."

In a LCS, the instructor listens, improvises, and goes along with what the learning process becomes in the classroom. In doing so, the focus shifts from the planned questions/content to the emerging questions/content. If we accept that the final value of the experience is not based on planned content, but on how realistic and relevant the learning activities are to the work of the community of learners, then trainers should negotiate the curriculum and get ready to throw away the agenda at a moment's notice. This is the principle of *emergence*: flexibility in the classroom to follow what is relevant to trainees, which in turn results in meaningfulness. Robert Chambers calls this the ability to be "optimally unprepared."

In a LCS, socializing is not a waste of time; instead, the view is that a lack of proper time for conviviality disables collaboration in teams. A LCS creates a friendly atmosphere through a physically welcoming environment (party-like with posters, inviting background music, open stations for group work, favors for participants) and a welcoming attitude of the trainer. This is the principle of *conviviality*: the pursuit of spirited social skills for reflection with the goal of producing high-performing teamwork and individual learning. This principle requires the trainer to become a skilled host, what Vicky Robin, in *The Courage to Convene* (1999), calls the new leadership of convening: "a form of improvisational social artistry aimed at a higher order coherence and intelligence."

A LCS is messy because the real challenge of learning is *unlearning*. Removing the debris of previous construction to rebuild the foundation of new understanding creates disorder and disorientation. The instructor deals head-on with conflict, disagreement, resistance to new ideas, difference of opinions, common fears, anxieties, or feelings of incompetence. This is the principle of *chaos*: the idea of learning as attending compassionately to the dissonance and discomfort of unlearning and, in turn, giving birth to real change and new knowledge.

How do you create a training program inspired by these principles? A LCS focuses on four critical practices:
• *Designing Learning Tasks* (based on the work of Jane Vella and Bob Mager): Turning the content to be taught into learning activities designed during training preparation
• *Hosting Learning Spaces* (inspired by the work of Juanita Brown and Vicky Robins): Creating an informal climate to foster collaboration and lower defensiveness
• *Facilitating Learning Conversations* (guided by insights from David Johnson, Roger Johnson, and Edythe Johnson Holubec, and Sam Kaner): Facilitating conversations through dialogue, reflection, and conviviality and using them as a critical tool to reflect on action
• *Evaluating Learning Results*: Focusing on evaluation of the results of learning experiences to make them accountable and effective in bringing about organizational change

The Blueprint: Designing Learning Tasks

Adult learners are generally not interested in formal knowledge—meaning the entire background behind what they are learning. It is not about knowing facts or "knowing about" but rather about "knowing how," "knowing when," and improving the learner's ability to solve problems. So-called "domain knowledge" (concepts, facts, and procedures), while necessary, is largely insufficient to empower people to solve problems at work.

Expertise is built through experience, and experience means the ability to solve problems using the content in the context of work. As a result, the work of the trainer becomes to design content turned into problem-solving experiences set in the work context of the trainees.

1. *Selecting the Content*. For a LCS session, the design phase is key. To design a session, we meet the people, ask around, get them involved, and make decisions about training *with* the learners and the stakeholders, not *for* them (see "The Design Phase" on p. 4 for some suggestions). After this phase, the content is listed in a document and outlined in specific behaviors that will

be affected by the LCS experience.

2. ***Bringing Learning to Task.***
According to Jean Lave and Etienne Wenger, "The practice of the community creates the potential curriculum." To contextualize the content of the class and create hands-on tasks, the trainer dives into the learners' community of practice to get an idea of what tasks will capture the content and engage them. Jane Vella defines a learning task as "an open question to the trainees with all the resources to find the answer." A learning task in a LCS is made of three elements: *presentation, activity,* and *dialogue.*

• *Presentation* (10 percent of the total time of the task) is where the instructor presents the activity and demonstrates its basic components.

• The learning *activity* (45 percent of the total time), the real task, follows; it is a problem that offers the opportunity to practice the content to be learned and

includes the resources to solve it.

• We finish with a review/debriefing phase of *dialogue* (45 percent of the total time), where the instructor facilitates a conversation about the activity. I will describe this step in more detail later.

3. ***Executing. Making It All Happen.***
The discipline of project management can be useful in managing the process. In fact, collaborative learning is about instructional design and facilitating a class as much as it is about making things happen in a specific timeframe with a specific amount of resources.

In the case of my train-the-trainer workshop, the final result of the work in these three steps is a set of training materials that will be used in a class, with a tentative lesson plan, a document or webpage with the key concepts that will be taught, and an email sent to the trainees to encourage them to get familiar with the information before the class.

The Foundation: Hosting Learning Spaces

In *The Courage to Teach,* Parker Palmer defines a learning space as "a complex of factors: the physical arrangement and feeling of the room, the conceptual framework that I build around a topic … the emotional ethos I hope to facilitate, and the ground rules that will guide our inquiry." The challenge of managing these tensions is the heart of the inner practice of training adults. The LCS provides an ideal context for recognizing and embracing the intellectual as well as the emotional world of a group. A learning space with this emotional quality encourages learners as individuals to reach out to others during the learning process.

1. ***Being.*** The ultimate inner challenge is working toward the creation of a space where people can bring their whole persons—their brains as well as their hearts. To reach this welcoming presence, we need to realize that the good-natured intentions of following our agenda, lesson plan, and idea of how the session should go can be formidable barriers that might prevent us from interacting with learners.

While preparation is good, its function is exactly the opposite of the traditional approach: You overprepare so you can deal better with the total loss of

control and accept just being in the moment. When I am in a class and take the first step of being authentic, my behavior causes people to respond in kind. Here are a few tips for just "being" with your learners:

• *Think about what you do to prepare for a dinner with friends.* Do you get worked up about an agenda? Do you worry about the slideshow?

• *Make a conscious effort to listen.* Avoid talking as much as you can. Bounce back questions and avoid the temptation to become the star. Refrain from reciting your credentials.

2. ***Setting the Physical Space.*** The physical space needs to be carefully organized. Try to choose a venue with natural light. Get rid of any clutter and extra chairs. Turn on some low background music. Create flip charts in advance that say things like "agenda," "feedback," and "parking lot," but do not unveil them until needed. Add some plants, vases of flowers, and your own personal touches.

3. ***Welcoming People.*** Try to practice hospitality at the beginning of a class, in the critical first three minutes. Think about what a good host does when his guests arrive: He goes around and asks everybody if they are comfortable. She flits from corner to corner with a glass in hand and sees to it that everyone else does the same. By doing so, the host makes a cohesive group out of people who just met by inviting them to have a good time and interact.

Hard Hat Area #2

I turn off the music, and we start hearing group reports from this train-the-trainer class. "So how was it? I noticed some turmoil at table two. What happened?" I say with a smile and a teasing tone of voice. "We had a malfunction!" says one trainee, and the whole class laughs.

The first table shares information, then the second, then the third. The participants listen attentively. The sharing generates a conversation about who the stakeholders are for the training sessions these learners conduct and how to engage them. "We don't know who our students are," says someone. We decide it is an important topic, and some trainees ask more questions. I share my experi-

ence and solicit other people's opinions and experience.

I find in my folder some learning activities I brought along. I glance at my watch and decide to manufacture Task #2 on the spot: "Imagine you are asked by your stakeholder, 'What are the first three things you will do as you organize this class?' Here is a list." I distribute the lists. "Find a person you have not worked with before and for the next 10 minutes, select the three most critical activities you need to do in preparation for your training. At the end, you will share your responses with the rest of the class." A few minutes later, we review their findings and post on the wall giant sticky notes with what this group considers critical to prepare for teaching. Wow, they are all different! I didn't expect so much interest in instructional design.

I decide to change the sequence of tasks. I introduce now what I thought would be Task #6, saying, "We are doing the next task because, while preparation is critical to training success, we all do different things. In this task, you are given a case study. Read it and answer questions 1, 2, and 3. Then, as a group at your table, come up with common answers. After 40 minutes, you will report a sample of what was said at your table." I switch the music back on and go back to sit on my stool.

The Hard Work: Facilitating Learning Conversations

In the LCS, people interact heavily with peers and—as in normal work—use conversations to solve business problems. Learners develop a common way of thinking and talking about their work. With learning conversations, they speak their familiar language, incorporating new knowledge, pooling knowledge together in a common search, and exploring knowledge in an intensively collaborative setting. The idea is that you want people to "talk the learning out," to express it, give it words, reflect on it, dispute it, discuss it. I use three different formats for learning conversations:

1. **Dialogue with a Learning Partner.** Ask each person to interview, share, and talk with another person about the topic at hand. You might want to have this as a sequel to another activity such as reading a page of text, performing a

procedure, or writing an assignment.

2. **Learning Group Dialogue (Among Sub-Group Members).** Ask each table to discuss something, solve a problem, or complete a task. This is the key work of the trainees during a class. Again, I ask them to come up with an agreed-upon strategy after a discussion, simply share their thoughts about something, or come up with a list of ideas. At the end of a learning group dialogue, you might ask one person to bring the conversation to the rest of the class, write on a flip chart, or fill out a form with questions.

3. **Learning Dialogue (Among All Groups).** Invite all members of all groups to report, review, discuss, or analyze their work. This is the hardest conversation to facilitate, and it takes some practice to do it well. This step is inherently unpredictable. It represents, however, the highest level of learning. Creating a learning dialogue after a hands-on activity is both the objective of the activity itself and the specific strategy used to develop and confront the understanding matured by doing the activity.

Of course, not every conversation is a learning task. To turn a conversation into a search for meaning, I follow the three criteria identified by Nicholas Burbules, the author of *Dialogue in Teaching: participation*—an active involvement in dialogue; *commitment*—a persistent willingness to stay with dialogue no matter what happens; and *reciprocity*—a mutual respect and concern regardless of privilege or expertise.

The New Building: Evaluating Results

The whole point of this approach is its ability to make a difference in organizations in four areas:

• **Prompting Individual Unlearning.** Has the experience shifted people's thinking? Has painful unlearning and conflict-ridden reassessment of perspectives taken place? How do we measure unlearning? As Sivasailam Thiagarajan once wrote, "This session will not answer all your questions, but rather question all your answers." How can outcomes be accurately measured if we cannot even design unlearning?

• **Building Team Learning.** Have people experimented with and started owning

new practices and new knowledge? Has learning been built collaboratively? While stakeholders strive to define, plan, anticipate, and develop outcomes before a workshop, no matter how much planning we do to reach learning outcomes, ultimately we are dealing with adults who come to class with rich experience. If each individual is responsible for her own knowledge, how can anyone set a target outcome in advance and ensure its achievement? But if we admit to having little—if any—control over the outcomes, how do we ensure results for a LCS?

• **Improving Productive Teamwork.** Has productive teamwork manifested itself? Have people improved their ability to work together?

• **Developing a Learning Community.** Is the learning community displaying a vitality that promises new beginnings after the class is over? Does this learning community have the ability to follow up on the work initiated?

What follows is a set of recommendations and best practices that can help us in the hard work of measuring those four critical results areas.

1. **Measuring Unlearning.** Jane Vella offers a good rule of thumb: "If they are not disputing it they are not learning it." I welcome controversies as necessary signs that the unlearning process is taking place. If the process of unlearning is impossible to anticipate and therefore completely out of the trainer's control, it is at least possible to design your class to make things less uncomfortable. For example, allow plenty of time for complaining and disputing the new content (all signs that the trainees are really taking it seriously), and make it safe to disagree with you and with the subject matter of the class. I try to let confrontation unfold and never take disagreement personally. Instead, I collect these as signs of unlearning.

2. **Measuring Learning.** From the beginning of the program design, I clarify that in class we will test the trainees' skill level. By communicating the mandate from the stakeholders early and often, and by designing the course through interactive design meetings with all parties, the work of collecting evidence of learning is understood in advance (see "How to

Collect Learning Evidence" for details).

3. ***Measuring Productive Teamwork.*** By creating a learning space that favors interaction and exchange, encouraging authentic group activities—not goofy games—as a source of team-skills learning, and supporting group discussions and dialogue on context- and content-dependent knowledge, the LCS produces a whirlwind of exhilarating teamwork. I assess its quality by observation. I actively ask for feedback on how the group work is going throughout the day and openly but discreetly confront groups whose work during the learning tasks is not productive.

4. ***Measuring Learning Community Vitality.*** This way to teach awakens a capacity for experiencing positive interactions on the job, a capacity day-to-day work often does not nurture. Whether this has been described as "having fun" or simply "enjoying the class," the constant in this approach is that people do not want the experience to stop. As the LCS builds energy and a drive in the group to perform at its best, the alchemy continues outside the class. I measure this outcome by scoring a follow-up online test on the critical issues

the trainees have encountered after the learning experience.

Productive Adult Learning Experiences

This article has offered practical suggestions on how to go about designing and facilitating productive learning experiences for adults based on four principles (experientialism, emergence, conviviality, and chaos) and four practices (designing learning tasks, hosting learning spaces, facilitating learning conversations, and evaluating learning results). With the LCS, team learning can model the knowledge power shift embodied by peer-to-peer technologies. We can create learning experiences for adults that pool and create knowledge rather than simply dispensing information or drilling skills. Classroom workplace learning can give in to new language of contemporary learning theory (context, collaboration, community, apprenticeship) while taking full advantage of the brave new world of technology-based training.

"The process of returning learning to its natural location: the workplace," which Joseph Raelin emphasizes, is at the heart of the LCS. When the critical resource of workplace knowledge is the pooled knowledge of learners—not of the "experts"—and when we recognize that the environment where knowledge lives and breathes is the workplace community—not textbooks—then reliance on outside experts is minimized in favor of an environment

where people are truly free to learn from experience in the exhilarating sense of accomplishment of the Learning Construction Site. ◪

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For Further Reading

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HOW TO COLLECT LEARNING EVIDENCE

- **By observation.** I collect evidence that the trainees are able to do something new. Each learning task is an actual mini-test that allows the group to face a scenario of applying the content to a real-life situation. The depth and relevance of the learning dialogue that takes place after the tasks provides additional evidence.

- **By administering and scoring a true/false test at the end of the session.** I ask participants not to write their names on the test, and when they complete and return them, I shuffle the tests and pass them around again to make it safer for people to make mistakes. I then ask each person to read from the test they have in their hands. I never focus the assessment on individuals.

- **By reflection with the trainees** in a final "lessons learned" conversation to review the value of the experience as a whole.

- **By talking with the trainees' managers one month after the class**, to collect evidence of if and how the new knowledge has produced visible change.

NEXT STEPS

Here are steps for building participation and commitment in a Learning Construction Site:

- **Set Up the Proper Learning Environment.** A nondefensive communication climate and an inviting learning space will start building the right collaborative environment.

- **Trust Your Training Preparation and Your Realistic Learning Tasks.** Your learning tasks and activities have been designed for maximum realism in the context of the participants' use of the skills or knowledge pursued through the session. This effort to set the unfamiliar (new content) in a familiar context will make the group work less intimidating.

- **State Openly That Learning Conversation Is the Norm.** Explain and acknowledge that the PowerPoint method of teaching might be more familiar, but that this new one will work better and will make learning really happen.

- **Give Encouragement and Acknowledge Trainees' Initial Confusion.** Trainees might not be prepared to learn through cooperative group work and dialogue. Additionally, not really knowing what is correct or incorrect during the work in the group might cause frustration. Ask your trainees to give it a try rather than give up. Reassure them that you are around and that at the end of the activity, they will hear a sample from all tables.