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(Note: This study didn’t report post-test scores, but similar studies have shown that this kind of follow-up usually improves test results, too.)


Testing: Review material from previous sessions

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Results: A survey showed that students didn’t like the cumulative exams. But the cumulative group did better on the final exam as well as on the two-month follow-up exam – in particular, learners on the low end of the bell curve.


Don’t be too quick to abandon traditional training methods

Many managers and employees are deeply skeptical of traditional training, such as lectures, reading assignments and training videos. Too theoretical. Not relevant. B-o-r-i-n-g.

The best way to learn something, they’ll argue, is by doing something. Let people tackle real-world tasks. Offer coaching and feedback. Then let them try again. That’s far more effective than sitting through a formal lesson, right?

Well, yes and no.

Research suggests that hands-on “active” learning is really good at teaching people how to do a given task. But it’s not very good at helping people transfer that knowledge to new situations.

To make that leap, learners need to see how everything fits together into a big picture.

And, one study suggests, old-fashioned “passive” learning techniques – those lectures, videos and textbooks – are still the best way to teach big-picture concepts.

The research

A 2006 study compared two introductory college business classes. One used lectures and gave students no opportunities for active experiences. In the other group, students were assigned to groups and tackled business projects designed around the class topics.

By one measure, the active-learning approach was better: Students remembered more of what they learned. But even so, they ended up with significant gaps in their knowledge.

These students learned what they needed for their projects, but were less likely to integrate this knowledge into larger conceptual frameworks.

And it’s those frameworks that allow us to apply what we’ve learned to new situations, the researchers suggested.

Implications for trainers

If your goal is to teach people a specific skill – operate a lathe, answer the phone, or fill out workers comp forms – hands-on learning works great.

But if you’re trying to teach people broader concepts – for example, how to sell in teams or motivate employees – you’re still going to need formal training.

These findings also raise larger questions for workplace training. Many organizations use on-the-job training – which is mostly active learning – and

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The right way and the wrong way: When to use negative examples

During training, do you want to show how to do it wrong as well as how to do it right?

It depends on the trainees. Training that uses negative examples can be effective if the trainees are already on somewhat firm ground as far as the material. If they’re not, showing them the “wrong way” to do something will just make them more confused.

The research

That’s the take-home from a recent doctoral dissertation by a Vanderbilt math professor. The prof designed lesson plans showing both “right way” and “wrong way” solutions to math problems.

The researcher found that students who started out with with a more solid grasp of the material strengthened their understanding further.

Incorrect examples helped them see what happens if you go down the wrong path, and why the “right way” is right.

But for those who had misconceptions about the material to begin with, incorrect examples didn’t improve their performance. In fact, the negative examples tended to confuse these learners.

Implications for trainers

These findings suggest that “wrong way” examples may be better for experienced learners than for novices. That makes intuitive sense: For veterans, a “bad” example often resonates with their own experience.

For example, you might pair off learners and give them a coaching scenario where a manager is trying to change behavior and an employee is resisting.

The training

The right way and the wrong way: When to use negative examples

But inexperienced learners don’t have that frame of reference, so it’s harder to remember which examples were “right” and which were “wrong.” It’s better to teach them just one way to do it.

Here are some specific ways to use bad examples to train experienced workers:

1. Assessment. Use wrong examples to diagnose learners’ knowledge. The examples can highlight misconceptions and forgotten knowledge, helping you focus your training.

You can use them in formal assessments before the training begins. You can also use them informally as you go along, to confirm understanding. For example, you might simply present a flawed scenario and ask for comments.

2. Exploring gray areas. Egregiously bad examples are fun, but don’t teach much. The most useful ones involve gray areas – for example, plausible, common or subtle mistakes that could trip up even the most experienced workers, or exceptions to a general rule.

Gray-area examples also boost your credibility as a trainer. They show that you understand the job and what the learners are likely to face.

3. Building confidence and morale. Ironically, bad examples can make learners feel good. They signal to learners: “This stuff is hard; expect some mistakes.”

That makes intuitive sense: For veterans, a “bad” example often resonates with their own experience.

For example, if you’re training seasoned customer-service people on how to respond to an irate customer, it helps to show what happens if they try to debate the customer’s version of events. “Yeah, that’s what happened when I tried it,” the learner thinks.

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Traditional training ... continued from page 1

Experiential Learning combines the best of active and passive learning.

consider it enough. But that kind of training is less likely to help employees acquire the high-level knowledge that will help them advance in their careers.

The best of both

Here’s a well-established model – the Experiential Learning Cycle – that combines both types of training.

The cycle starts with an active-learning exercise and then puts it in a larger context. The passive learning component is more engaging because it builds on the learner’s experience.

Let’s look at an example, using the topic of employee coaching:

1. Concrete experience. The training begins with a hands-on activity – for example, a game, simulation or role play. You might pair off learners and give them a coaching scenario where a manager is trying to change behavior and an employee is resisting.

2. Reflective observation. Next, facilitate a discussion of the activity. What happened in the role play? How did learners feel about the experience? What can they apply to their jobs? This is still active learning – it gets learners involved.

3. Abstract conceptualization. Next, you employ more traditional passive learning techniques to put the learning in context. For example, you might present a coaching model and supporting research, showing how the experience fits within the model.

The Experiential Learning Cycle

4. Active experimentation. Finally, you return to active learning to convert the knowledge into behavior. For example, have learners commit to trying the new coaching concepts on the job, and review in two weeks to make sure it happened.

The experimentation creates new experiences, so the cycle begins again.

Sources


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So, for example, if you’re training seasoned customer-service people on how to respond to an irate customer, it helps to show what happens if they try to debate the customer’s version of events. “Yeah, that’s what happened when I tried it,” the learner thinks.

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Also, learners will be more confident if they understand not only what to do, but what not to do. If they see a bad example, they’ll know how to avoid it.

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