

A Focus on Self-Improvement

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Professional Development

Five principles of deliberate practice can help teachers consistently improve their teaching.

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Educators often say that practice makes perfect. But what should that practice look like? Psychological research reveals that not all practice is equally useful. Mindless repetition is an inefficient way to improve any skill, and short sessions of high-quality, deliberate practice matter much more than a larger quantity of such repetition. In his recent book [Peak](#), Anders Ericsson describes the principles of deliberate practice that research has found to be effective in improving people's skill in fields ranging from surgery to playing the violin.

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How can teachers use deliberate practice to improve what they do every day in the classroom? Drawing on Ericsson's principles and research applying practice-based approaches to teacher education, [Deans for Impact](#), an organization composed of leaders of programs that prepare new teachers, recently produced [Practice with Purpose](#),

a report exploring the application of deliberate practice to teaching. We identify five essential principles of improving teaching through practice:

- Push beyond one's comfort zone
- Work toward well-defined, specific goals
- Focus intently on practice activities
- Receive and respond to high-quality feedback
- Develop a mental model of expertise

Many teachers are already using a version of these principles for student learning—by including a homework question that students are likely to struggle with to push them beyond their comfort zone, for instance. As a high school math teacher, here's how I try to use deliberate practice to improve my craft in the classroom.

What Should I Practice?

The first principle is to push beyond one's comfort zone. One area of my teaching I've been working on is facilitating discussions—I'm much more comfortable with other aspects of my teaching routine, like managing group work, giving explicit instruction, and summarizing key ideas from a group task. Facilitating a purposeful, meaningful discussion is much harder for me, which makes it a good candidate for deliberate practice.

The second principle is to work toward well-defined, specific goals. Facilitating discussions is one possible goal, but I can find even more concrete parts of facilitating discussion to work on. [Mary Kay Stein and Margaret Schwan Smith](#) have identified selecting and sequencing student strategies as an essential aspect of a successful discussion. I can focus specifically on this one element of discussions to practice purposefully and make the most of my effort. As I improve at selecting and sequencing, I can move on to other goals—perhaps teaching students to build off of each other's ideas. Practice continues, focused on the principles of pushing my comfort zone and focusing on specific goals.

What Does Deliberate Practice Look Like?

The third principle of deliberate practice is to focus intently on practice activities. Focus should be on quality over quantity; a short session of high-quality practice will help me improve more than intermittent efforts directed toward vague improvement. Instead of trying to improve the quality of every discussion I engage in, I can zoom in on one example each week. One tool I've used is the voice recorder feature on my phone. I can turn the voice recorder on for a few minutes of discussion and listen to it after class to learn how I could improve my facilitation in that moment. Every time I do this, I am surprised at how many phrases I want to take back—I'm not nearly as eloquent as I would like to think. Focused practice doesn't necessarily mean focusing more in the moment. Instead, it means finding more ways to examine, unpack, and learn from practice.

The fourth principle is to receive and respond to high-quality feedback. This one is tough. Many teachers don't have access to feedback on a regular basis. One advantage of the voice recorder strategy is that, if I can't find another teacher to give me feedback, hearing myself teach allows me to give myself more useful, objective feedback. If another teacher is able to observe me, I can focus their feedback by asking them specific questions about my current goals or by asking them to observe a particular moment in class.

What Knowledge Do Teachers Need?

The final principle of deliberate practice is to develop a mental model of expertise. I don't want to reinvent the wheel in my classroom. I'm not the only teacher trying to improve at facilitating discussions. And luckily, many of those teachers have shared their wisdom. I want to work to improve discussions in my class with a clear vision of what a

great discussion looks like, the components of those great discussions, and how a discussion fits into a larger trajectory of student learning. I can do this by observing other teachers, looking to [outside resources](#) to identify new goals, and finding [new perspectives](#) on what excellent teaching looks like. Comparing my teaching with my mental model helps me to self-monitor and becomes its own source of feedback, further improving my teaching.

When I share the principles of deliberate practice with other teachers, they often tell me that these ideas are common sense. In many ways they are—the claim isn't that they're innovations. But it is challenging to realize the full potential of deliberate practice on a daily basis, and I have spent too much time in my career trying to improve without focusing on these principles. Coming back to them helps me improve the quality of my practice, and, in turn, the quality of my teaching.