

## 4 phases of adapting to change during COVID-19 and beyond

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**Timothy M. Smith**

Senior News Writer

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The COVID-19 pandemic has accelerated the pace of change in health care, leaving many physicians looking for new ways to balance efficiency and innovation in their quest to meet patients' needs. A new textbook—published just before the pandemic—lays out a conceptual model for developing adaptive expertise in clinical reasoning.

This new learning model, the master adaptive learner, provides both a common language and a shared mental model to help learners at all stages of their medical careers develop the adaptive expertise they need to deliver high-quality health care, during a pandemic and beyond.

The following are highlights from “The Master Adaptive Learner: A Conceptual Model,” chapter 3 of *The Master Adaptive Learner*, an instructor-directed textbook designed to produce the habits of mind for lifelong learning in medicine. It is the first book in the AMA MedEd Innovation Series, which provides practical guidance for local implementation of the education innovations tested and refined by the AMA Accelerating Change in Medical Education Consortium.

### Make adaptability routine

“We have to be master adaptive learners because we're having to deal with different therapies, different treatments, different rules around quarantine and all the comorbidities that come along with COVID-19 ... and their guidelines can change daily,” said Michael J. Fowler, MD, associate professor of medicine at Vanderbilt University School of Medicine, who co-wrote the chapter with Donald E. Moore Jr., PhD, professor of medical education and administration.

“We are taught in medical school to have routines,” Dr. Fowler added. “We have a routine for taking a patient's history. We have a routine for the physical exam. We have a routine to develop a differential diagnosis. And we need a routine that enables us to adapt to changes in medical knowledge.”

Master adaptive learning provides just such a model, the authors noted, by cultivating three complementary approaches to thinking that address uncertainty: metacognitive monitoring, or reflection; metacognitive control, or critical thinking; and a predisposition to learn, or growth mindset.

Find out why the physician of the future is a master adaptive learner.

## Set it in motion

“A clinician whose performance is characterized by adaptive expertise manages routine patients with known approaches and challenging patients with innovative approaches,” the authors wrote. In practice, the latter involves these four phases, some of which may overlap.

**Planning.** This starts when a physician experiences cognitive dissonance because an established treatment isn’t working. It “consists of recognizing a gap in practice, determining what needs to be learned and creating a goal to guide learning activities,” the authors wrote.

**Learning.** The master adaptive learner then takes formal and informal approaches to learning. She first carefully studies signs and symptoms in patients for whom a diagnosis or treatment plan was ineffective, which activates “encapsulated” biomedical knowledge—concepts stowed away in long-term memory. She might then also conduct PubMed searches on the topic, reach out to colleagues for ideas and attend relevant patient care conferences.

**Assessing.** “Informed self-assessment is the central activity during the assessing phase,” the authors wrote, adding that this involves using external standards, externally generated data and external feedback. Examples include reaching out to quality improvement staff for help in comparing one’s performance with institutional standards and asking a senior colleague to provide clear, timely, specific and constructive feedback.

**Adapting.** In this final phase, the physician integrates the new approach she has learned into her daily routine. This can take place on several levels—in the microsystem, namely clinical encounters; in the mesosystem, which includes the lab and other patient care support services; and in the macrosystem, such as hospital-wide protocols or social services.

Other chapters in *The Master Adaptive Learner* include “How Do You Measure the Master Adaptive Learner,” “How Will the Master Adaptive Learner Process Work in the Classroom,” and “How Will the Master Adaptive Learner Process Work at the Bedside?”

Developing the skills of a master adaptive learner should begin in medical school with case-based learning during the initial years. And later, in the clinical years, such learning should focus on the development of capabilities in metacognitive monitoring, or reflection and metacognitive control, or



critical thinking as well as a positive attitude towards learning. Practicing physicians who have not had the benefit of MAL training could deliberately focus on developing reflection and critical thinking skills.

Discover more about?envisioning the adaptive learner.