Educational Principle

If you assume "an expert is someone who knows all the answers", you severely constrain new learning because the tendency is to worry about looking competent rather than publicly acknowledging the need for help in certain areas.

-How People Learn

Physicians who deliberately practice the art and skill of medicine are more likely to achieve excellence.

Guest et al concluded that teaching deliberate practice means providing learners with opportunities to: (Unfortunately article is no longer available online)

1. **Address problems in medicine at the upper level of their ability**
   
   Suggestions:
   
   - Take an educational history
   - Plan appropriate challenging patients at least once a week
   - Discuss an independent learning project of interest to the student

2. **Develop a livelong habit of self monitoring (seek out blind spots)**
   
   Suggestions:
   
   - Assist students to identify their strengths
   - Provide students with opportunities to identify and correct mistakes in a safe environment
   - **Reflective Learning**
   - **Significant Event Audit**
   - **One Minute Preceptor**

3. **Repeat tasks to improve performance**
   
   Suggestions:
   
   - Guide through multiple cases
   - Skills and knowledge increase with repetition to the point where you are [unconsciously competent](#) (automatic)
   - Key is timely feedback to prevent mistakes that might result in becoming unconsciously incompetent.

Here are some articles about deliberate practice if you want to look at this area more closely:

Mastery Learning With Deliberate Practice in Medical Education 2015 Academic Medicine
The Role of Deliberate Practice in the Acquisition of Expert Performance
The definitive article from K.A. Ericsson who initially proposed the concept although not specifically medical

The Effects of Deliberate Practice in Undergraduate Medical Education
The present study investigated the relationship between several aspects of deliberate practice and study achievements among undergraduate medical students

Developing Clinical Reasoning: The role of deliberate practice, reflection and analogical mapping
Research indicated that practice, reflection, and cognitive processes are necessary for effective clinical reasoning ability but do not adequately answer the question of how they are related

Deliberate Practice and CPD in Psychiatry
This editorial outlines the philosophy of deliberate practice and potential difficulties in making use of it in psychiatry

Mastery Learning of Thoracentesis Skills
Our aim was to use a thoracentesis simulation to assess graduating residents' proficiency in thoracentesis procedural skills and to evaluate the impact of an educational intervention on skill development to mastery standards.

Reflection, perception and the acquisition of wisdom; Medical Education 2008

1. the knowledge that represents phenomena in the subject domain
2. the thinking activities that construe, modify and use this knowledge
3. to act in them.

Learning Cycle
Read more about the issue of Rewards and Punishments' role in learning.

Ideas for Working with Students who are Experiencing Academic Difficulty