

Deliberate Practice – A Primer
A Resource for Expert Skills Program at Texas Tech
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Much of the study of DP in medicine has occurred over the past decade and has been applied to clinical skills ranging from the more obvious surgical procedures to more subtle skills in perceptual (imaging) diagnosis and medical diagnosis (Ericsson, 2004; Wayne, et al., 2008; McGaghie, et al., 2011). This primer will be focused on skills needed prior to clinical skill training, namely cognitive learning skills. Cognitive learning skills prepare students for clinical skills primarily because there is fundamentally no difference between the two. Clinical practice, at the expert level, requires a constant application of cognitive skills. The cognitive skills addressed in the Expert Skills Program at Texas Tech are a step beyond typical study skill strategies because they establish the Growth Mindset that has been shown to produce increased academic performance (Dweck, 2006). The Growth Mindset utilizes the self-awareness of how the brain functions in deciding how to apply Deliberate Practice strategies. Thus, the use of DP at the earliest opportunity will not only make medical school more manageable academically, but it will produce expert clinical performance at the fastest possible rate for each individual.

Deliberate Practice Examples

- The reason that everyone doesn't use DP is that it isn't fun – but, then again, not everyone chooses to become an expert.

– *Miles Davis, jazz trumpet master, commented during an interview that he didn't play ballads anymore. When pressed for a reason, he replied, "Because, man, I love to play ballads."*

- DP is also not necessarily work, nor is it play. It is just focused effort (Colvin, 2011).
- Studies show that expert skill levels are only achieved after about 10,000 hours of DP (Gladwell, 2009). In an average medical practice, this is about five years after board certification.

3. Deliberate Practice requires continuously available feedback.

- Opportunity for feedback is built into the clinical setting, but is not well developed in preclinical education.
- The learning methods available in the Expert Skills Program are designed to provide needed feedback in the preclinical curriculum.

4. Deliberate Practice is hard to sustain, so it makes you tired.

- The normal reaction to skill development is to continue to practice a skill at the first successful level of difficulty, e.g. skill in memorization leads to the use of time to memorize more. This is more comfortable and less threatening.
- DP is always looking ahead to the next level, e.g. mastery of memorization is t71693(e)1.96262(x)-3.71693(
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5. Gladwell, M. (2008) *Outliers: The Story of Success*. New York, NY: Little, Brown, and Company.
6. McGaghie, WC, Issenberg, SB, Cohen, ER, Barsuk, JH, and Wayne, DB. (2011) Medical