
Renate Otterbach

University of San Francisco

Follow this and additional works at: http://docs.lib.purdue.edu/giftedchildren

Part of the Gifted Education Commons

Recommended Citation


Available at: http://docs.lib.purdue.edu/giftedchildren/vol2/iss2/4

This document has been made available through Purdue e-Pubs, a service of the Purdue University Libraries. Please contact epubs@purdue.edu for additional information.

This is an Open Access journal. This means that it uses a funding model that does not charge readers or their institutions for access. Readers may freely read, download, copy, distribute, print, search, or link to the full texts of articles. This journal is covered under the CC BY-NC-ND license.
The Cambridge Handbook of Expertise and Expertise Performance provides a synthesis of expertise research from multiple theoretical perspectives and across multiple domains. One of the recurring themes in this handbook is that deliberate practice is an essential component of the development of expertise. Whereas competence may be achieved through instruction, training, and experience, expertise can only be developed through deliberate practice, which differs significantly from general practice both in its purpose and design. The goal of general practice is to solidify a skill, but the goal of deliberate practice is to systematically push beyond one’s current level of reliable performance. Deliberate practice is comprised of a set of exercises designed by an expert that help the learner to move beyond current proficiency levels, thereby continuously decreasing the gap between what a learner has already mastered and what he or she still has to master in order to achieve expertise.

Vygotsky demonstrated that the Zone of Proximal Development – that area of knowledge just beyond what is already mastered – is where maximum learning can take place. Thus, deliberate practice might be conceptualized as a systematic method for moving through the Zone of Proximal Development in incremental steps until one develops sufficient expertise to design one’s own learning experience, and thereby continuing one’s growth independently.

Zimmerman summarizes the steps of deliberate practice as a process of “task analysis, goal setting, strategy choice, self-monitoring, self-evaluation, and adaptation” (Zimmerman, 2006, p.705). Generally, deliberate practice opportunities are designed by a coach or expert until the student has developed sufficient skills to develop his or her own deliberate practice. From the viewpoint of developing expertise, deliberate practice is a lifespan endeavor.

Deliberate practice has been shown to be such a crucial factor in expertise studies across multiple domains that some expertise researchers minimize the role of aptitude. The consensus in the expertise literature seems to be that long-term, sustained engagement in deliberate practice is the key to the development of expertise. Thus, anyone who wants to develop expertise in a given area can do so, provided they are willing to invest sufficient time in deliberate practice.

These findings echo the mantra of mastery learning: all students can learn provided they are given sufficient time to learn. This may cause grave concern for parents, teachers, and researchers in the area of gifted and talented education, whose gifted children often have to endure endless repetitions of familiar content in mastery learning classrooms, until everyone learns the concept. While there is a potential danger that a misinterpretation of the findings of expertise studies may lead to a similar situation, the essence of the findings can also be viewed as beneficial to gifted students. Expertise studies can be used to enhance gifted and talented education, or be detrimental to it, depending on how it is synthesized, presented, and integrated into the educational system. Based on the research, it appears that high aptitude is most beneficial in the initial stages of learning, until the level of competence is reached and its benefits level out. At the point where a plateau is reached, deliberate practice becomes essential to break through to the next level, and continue on the path of expertise development.

Expertise research acknowledges that talented students may reach the plateaus earlier than their peers. This implies that these students may need earlier opportunities to engage in deliberate practice. These opportunities are essential to keep gifted students from disengaging from the content. Continual engagement in deliberate practice can contribute to the mental growth of gifted students, especially to the development of specific areas of interest where expertise is desired.

There are however, some caveats to consider. First, deliberate practice requires a high level of concentration, and generally can only be pursued for short periods of time even by experts, generally no longer than 30 minutes per session. Thus, while the discipline and the habit of deliberate practice may be essential to high performance in an area, it would be neither realistic nor wise to encourage students along this path in multiple areas. The time needed for deliberate practice severely limits the time and energy available for other activities, and an attempt to develop expertise in multiple disciplines simultaneously can lead to burnout, even for gifted students. Students should be encouraged to choose their fields wisely, and parents should be discouraged from (continued on next page)
thinking that more fields of concentration are better than fewer. Furthermore, for some gifted students, expertise is not their goal. Whether or not such students should be encouraged to engage in deliberate practice to develop disciplined habits of learning is a question for further research.

A second caveat that is especially salient for gifted students is that during deliberate practice, an acquired skill often gets worse before it improves, resulting in a temporary loss of competence. For students who have previously found that learning comes easy, this can be especially disconcerting. The relationship between giftedness and perceived loss of competence, even if only temporary, is a promising focus for research. Another area of further research is suggested by Robert Sternberg (2003), who argues that high aptitude may be in itself a form of expertise. If that is the case, what would be the components of deliberate practice that facilitate the development of high aptitude? Rephrasing the question this way may further research agendas that provide us with a deeper understanding of the interaction between innate abilities and environmental factors.

Finally, from a programmatic point of view, does an understanding of the nature and importance of deliberate practice provide a rationale for the necessary enrichment activities for gifted students in regular classrooms? Can the concept of deliberate practice be integrated into gifted and talented teaching models that focus on expertise development such as Renzulli’s Triad Enrichment model?

Editor’s Note: If you are planning to attend AERA in San Diego next year, and want to participate in a symposium on the role and impact of expertise studies in gifted education, get in touch with Renate at otterbach@usfca.edu. (The proposal deadline is August 1, 2008, so get in touch with her as soon as possible.)

Reference