

Review

The Learning Cycle: Insights for Faithful Teaching from Neuroscience and the Social Sciences. By Muriel I. Elmer and Duane H. Elmer. Downers Grove, IL: IVP Academic, 2020. ix + 231 pp. Paper \$17.99. ISBN 9780830853830.

In spite of near-universal knowledge of Bloom's Taxonomy among American educators, much of learning today is tied to how much students know and comprehend, not what to do with knowledge and comprehension. There is an extra mile somewhere that needs to be walked. If I remember anything from graduate school, it is the definition that learning is a permanent change of behavior due to experience, mental association, or social interactions (Ormrod, *Human Learning*, 1999). A permanent change of behavior should be the ultimate pursuit for educators, especially Christian educators, many of whom seek to transform student lives. Similar books about learning often hint at behavior change but stop at cognitive changes. Muriel I. Elmer and Duane H. Elmer have deepened my understanding of behavioral change from an educational perspective. To them, "Learning is a progressive concept that incorporates cognition, affect, and early practice (living) the truth" (29).

The Learning Cycle: Insights for Faithful Teaching from Neuroscience and the Social Sciences crystalizes the authors' years of experience in the field of teaching, and it also incorporates the latest scholarly findings, as the name suggests. The book uses neuroscience to explain that if students do A, B, or C, certain parts of their brains become active or inactive. The authors have just enough neuroscience to lend credibility to some of the claims without making them crutches which would cause a book to crumble once they were removed. Teaching is not just a science. It is also an art. In most cases, educators do not need additional brain scanning to learn if an instructional strategy has worked. A smile or a frown on a student's face is as powerful as an active or dormant area of the brain in an MRI.

The book is filled with stories from the authors' teaching practices. These could be gems to gather. For instance, how they reaffirm compassionate wisdom from grandmas in what many dismiss as old wives' tales; how they demystify the concept of cross-cultural communication with the analogy of marriage; and the story of how they encountered pastors from a different culture and confronted them with a new classroom strategy. These stories make the book engaging to read. The book feels like the couple's joint love letter to teaching and learning.

The Learning Cycle is filled with practical strategies and tips. For instance, many in the field are stuck arguing whether they should keep or ditch lectures, while the authors dissect a lecture and show instructors tricks that make a lecture work. They see a lecture as consisting of two "prime-time" segments. They give examples of how successful lecturers bring closure and inquiry to their lecturing process. The authors are

also not shy about making bold claims. For instance, “Lectures tend not to change attitudes” (54).

The authors list many small teaching techniques other educators may find useful. For instance, they use “memo to self” to activate self reflection. My favorite example is how they allow students to discuss and then change their responses. Most online courses have what I would call “static” discussions: the teacher gives a prompt; students post their responses and respond to two others with “substantive answers,” not merely with “I agree” or “great point.” Sometimes teachers use Turnitin to make sure that students do not copy polished answers from somewhere else. Something is missing here. To grow, don’t we change our minds along the way, discover our blind spots, add missing links, and correct erroneous assumptions? If we are not willing to acknowledge our fallibility, and if we are not prepared to be broken on the floor by more robust arguments, what can we learn? We just present an opportunity for others to see how smart or stupid we are in the responses we supply, not how much we can self-correct and grow. The authors get this. They encourage students to change their answers after hearing something better. I would encourage other professors to make changes to their discussions as well, to sometimes enable students to change their answers.

The book has created a clear structure for behavioral change. It starts with recall and moves on to emotions, cognitive dissonance, overcoming barriers, building habits, and character development. It charts a path in the otherwise vague and chaotic landscape of learning.

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