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## Reviewing *The Learning Cycle: Insights from Faithful Teaching from Neuroscience and the Social Sciences*

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# REVIEWS

***The Learning Cycle: Insights from Faithful Teaching from Neuroscience and the Social Sciences.*** By Muriel L. Elmer and Duane Elmer. Downers Grove, IL: Intervarsity Press, 2020. 223 pp. ISBN 0978-0-8308-5383-0. \$22.00

*T*his book begins with a story about a former student, the author's self-reflection, and a subsequent call to action for the authors—the realization that becoming a better teacher is about helping the student to “connect knowledge to life” (p. 3). This is a good transition to the intent of the book.

The book is divided into 14 chapters, with the essence of the subject matter—*The Learning Cycle: Insights for Faithful Teaching from Neuroscience and Social Sciences*—being discussed in chapters 3 to 14. The Learning Cycle is made up of five levels with two chapters dedicated to each level, except the second level. The chapters are undergirded with one or two scriptural references and relevant quotations from fields such as brain research, philosophy, theology, physics, psychology, education, and poetry. While there is a fair share of scriptural relevance and detail throughout the text, this review focuses mainly on the academic context: The Learning Cycle.

Each level of the Learning Cycle begins with the word “recall,” as the authors affirm that “remembering content is the foundation of learning” (p. 27). For each level, the authors provide helpful illustrations from their experience and practice of the Learning Cycle Theory. While the model is a closed cycle, in chapter 14, the authors advise viewing the cycle as an upward expanding spiral that accommodates “space to engage new challenges created by life experiences” (p. 197).

The goal of this model is a life of character, integrity, and wisdom, a model where “truth spoken is truth lived” (p. 19). The model has five levels:

Level 1—Recall

Level 2—Recall with Appreciation

Level 3—Recall with Speculation

Level 4—Recall with Practice

Level 5—Recall with Habit

The authors refer to the learning models developed by Krathwohl and Bloom (1956 & 1964), as well as David Kolb (1984), because they are foundational to the Learning Cycle in terms of the domains and transformation. However, this model incorporates content or information as an important element. It appears that the first four levels of the Learning Cycle are part of an orientation process, while the fourth and fifth are the actual learning in practice. The model also includes a section on “Barriers to Change,” addressed in the chapter before the last two levels of the model. This model is aligned to scripture, and as such, the requirement for the student or teacher to live in accordance with the knowledge or information and reflected biblical truths is inherent. Following are brief reviews of the levels:

### **Level 1—Recall (chapters 3 and 4)**

Duane Elmer discusses memory, defined as the retention of information and the types—short-term, working memory, and long-term memory—“learning that changes a life” (p. 27). Also discussed are conditions of learning—proper stimulation through sense (comprehension) and meaning (relevance). It is astutely suggested that learning has taken place when “it becomes part of the believing and behaving pattern of the person’s life” (p. 29).

Rehearsal and rote memory are explored as a learning strategy for information storage and recall, with particular emphasis on the value of the rehearsal. The discussion of international students’ presence in the classroom, however, could benefit from a more wholesome consideration of the characteristics and dynamics of this group of students.

The second chapter in this level discusses lectures with some useful insights and tips for the class lecture structure. Amongst many best practices, the best types of lectures are those that engage the learner through “open questions”; “respect the independent thinking of the learners . . .” (p. 41); “interesting, relevant, and practical” lectures

(p. 49); and opportunities for reflection. Over-reliance on lectures is discouraged, especially when considering brain capacity and cognitive overload or cognitive unload.

## **Level 2—Recall with Appreciation (chapter 5)**

The role of emotion in learning is advocated in a very brief overview of advances in neuroscience and with more in-depth discussion on the relationship between the emotional state of the brain and the rational part of the brain. Basically, more learning is achieved when the brain is positively engaged. Also, safety in the classroom can contribute towards this goal and change experiences for reticent students. For example the authors' statement of "stories packaged as whole experiences...resulting in deeper learning" (p. 70) seems laden with depth. This relevant point of discussion, if revisited, could provide more understanding of its connection with emotion in learning.

## **Level 3—Recall with Speculation (chapters 6 and 7)**

The authors use a brain science definition of the word "speculation"—"that which occurs when new information connects with past information and prompts the learner to imagine what might be" (p. 76)—as a springboard to undergird the importance of speculation in the Learning Cycle. Elmer and Elmer also mention briefly learning tasks that support speculation: useful talking, writing, case studies, field trips, group work, etc.

The authors point out the responsibility incumbent upon teachers to emphasize the future importance of current learning to life and to character development, and for teachers to also encourage students to embrace the connection between truth and life in order to experience change. The authors provide a good argument with practical examples (pp. 86-88) as caution against hindering the fruitfulness derived from the contemplation of the connection between truth and life experience.

The authors explain the power of cognitive dissonance as a result of speculation in learning and the growth experienced in human development and spiritual growth. Dissonance provides an opportunity

to “. . . form new habits that will lead to a more coherent, integral life (character)” (p. 96). The authors provide Biblical parallels with examples of Jesus’ and professional examples as illustrations to further understanding.

## **Barriers to Change (chapters 8 and 9)**

Muriel Elmer discusses recognizing and identifying barriers, using some of Jesus’ teaching examples. The Reasoned Action Approach (RAA) behavior change theory is a model to counter barriers to change. It is a “theory that asserts that a few specific beliefs control both why and when people decide to change their behavior” (p. 113). Insightful correlations between the RAA theory and the Learning Cycle are also provided with each RAA critical belief correlating to a particular Learning Theory level. An identifying barrier illustration helps to increase understanding. Another chapter is devoted to practical strategies to overcome barriers to change: writing a memo to self, role playing, managing social pressure, avoiding dangerous contexts, managing negative thoughts, and depending on scripture and prayer.

## **Level 4—Recall with Practice (chapters 10 and 11)**

Elmer and Elmer discuss hesitation toward change in general and in cross-cultural contexts, the added issue of discomfort. From their illustrations, tools such as encouragement, dialog, and discussion prove to be useful in promoting transformative learning. A strategy for turning learning into practice—dialog and discussion—is explained, using the four stages of Mezirow’s Theory of Transformative Learning (pp. 136-138), which, as mentioned earlier, undergirds the learning cycle. The authors also provide an interesting explanation of the relevance of a learning community in exercising individual priesthoods (i.e. gifts and abilities) for nurture and ministry.

Chapter 11 focuses on approaches to incorporating practice into the learning environment. As mentioned in the earlier chapter, practice is intended to form habits. One approach is *social simulation*—allowing learners to practice new behaviors with minimal rules with the aim of

highlighting people values that drive their behavior. Reflection provides opportunities for learning. Other approaches include skills training with built-in practice, alternating practice with regular debriefing, and role-play. Examples of each approach are provided. These approaches all abide by learning principles—safety, repetition, rehearsal, engagement, and action—all of which support brain growth or how the brain works.

## **Level 5—Recall with Habit (chapters 12 and 13)**

A habit is defined as “a specific recurring thought behavior or set of behaviors that have become so automatic that we can repeat them without thinking” (p.163), and formation of habits is also described, both intended and unintended. Elmer and Elmer describe good habits (attitudes of gratitude) and bad habits (poor interpersonal skills and bad attitudes), which can be changed by replacing routines. The authors also provide examples of building habits based on personal Christianity.

Chapter 13 espouses the benefits of sustaining habits with a particular emphasis on the relevance of spiritual perspectives in developing keystone habits to promote change. Support groups are deemed to be important in influencing the behavior of people in developing good habits.

## **From Habit to Character (chapter 14)**

This final chapter is a quick overview of the learning cycle. The authors provide succinct examples of applications of the learning cycle at the individual, group, and institution levels. The essence of the learning cycle—to become a transformed person—is found in three words: wisdom, integrity, and character. The chapter also discusses imbalances regarding any one stage of the cycle; each level mutually reinforces the other levels and plays a distinctive as well as integrative role. *The Learning Cycle: Insights from Faithful Teaching from Neuroscience and the Social Sciences* is a useful practitioner’s book with applicable strategies, tips, and illustrations of achieving the end goal of transformative learning.

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