

Learning Styles

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Perhaps it was Hippocrates, the Greek physician, who was the first on record to identify human personality styles around 400 B.C. He hypothesized there were four basic personality types: *sanguine, choleric, melancholy, and phlegmatic*. Over 2,300 years later, Timothy LaHaye, an evangelical pastor, used Hippocrates' theory as the basis for his bestselling book, *Transformed Temperaments*. While neither of these men contributed specifically to the emerging field of educational research known as "learning styles," their writings underscore an obvious conclusion: *human beings are different from one another*. Learning styles research is concerned with discovering the ways in which human beings differ in how they learn and then applying these discoveries to educational methodology.

Definition of Learning Styles

One of the more succinct definitions of learning styles is Keefe's: "*Learning styles are characteristic cognitive, affective and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with and respond to the learning environment.*"¹ Learning styles

research, then, is concerned with every aspect of the educational process. The study of learning styles is important because it can help us discover how we as teachers learn, how our students learn, and the most effective methodologies to utilize in the teaching-learning process. Marie Carbo, Rita Dunn, and Kenneth Dunn, one of the leading teams in learning styles research, write: Everyone has a learning style, but each person's is different—like fingerprints. Fingerprints are similar in many ways, Job but specialists trained to tell the differences can identify which belong to whom. Learning styles specialists can do even more than diagnose and match styles; they can describe how to learn more with less effort and remember better than ever before, merely by capitalizing on each individual's unique characteristics.²

A Review of Learning Styles Research

Pat Burke Guild and Stephen Garger divide learning styles research into four primary categories:

1. *Cognition*—"How do I know?" This question seeks to determine the differences in how people perceive information.

2. *Conceptualization*—“How do I think?” This area of research asks how a person processes the information collected.
3. *Affectation*—“How do I decide?” Learning styles research is interested in the differences in how people move from data collection, to data processing, and then to data analysis.
4. *Behavior*—“In what ways do I act?” This is the ultimate out-come of the first three areas.³

Jung

Most learning styles literature points to psychologist Carl Jung (pronounced “young”) as the father of the movement, although Jung himself did not refer to learning styles. Rather, in 1921, his research led him to propose that human beings could be divided into “psychological types.” Jung concluded there were four basic human functions on two continuums: sensation/intuition and thinking/feeling. People either gravitated to one or the other sides of each continuum. He later added to this theory another continuum based on two basic types of human behavior he deemed as extroversion to introversion.

Myers–Briggs

Myers–Briggs built on Jung’s work. This famous mother/daughter team added a fourth continuum—perception/judgment. From these four continuums, Myers and Briggs proposed 16 basic personality types and developed an instrument which would allow psychologists and other counselors to discern the personality type of a client. The *Myers–Briggs Type Indicator* (MBTI) has become internationally known and widely used in counseling, education, marriage preparation, and job screening. Though they did not specifically research

learning styles, their model served as the basis for those who would.

Kolb

In 1971, an American psychologist David Kolb developed what he called the *Learning Styles Inventory* (LSI) based on his “experiential learning” theory.⁴ Kolb theorized that there were four basic modes of learning, which he arranged in a circle:

1. *Concrete Experience (CE) mode—The Diverger*. This person learns primarily through sensory input and enjoys learning environments where there is high personal interaction.
2. *Reflective Observation (RO) mode—The Assimilator*. This person learns in a logical and sequential order and enjoys reading and gathering information. This person can learn without involvement in a group setting.
3. *Abstract Conceptualization (AC) mode—The Converger*. This mode involves learning by doing. The person who favors this mode must have “hands on” involvement.
4. *Active Experimentation (AE) mode—The Accommodator*. This mode features a “trial and error” approach to learning.

Kolb believed learning was a cycle. Students started with the Concrete Experience (CE) mode and moved through the other three. He believed that the “best” learners utilized all four modes, but that most people favor one of the modes over the others. Kolb’s LSI, currently available in its third version, is a convenient self-test of twelve items. The person taking the LSI gives a self-rating on each item. When the test is completed, the scores are compiled and then plotted on a chart which gives the

person a visual picture of his or her learning style.⁵

Carbo, Dunn, and Dunn

Carbo, Dunn, and Dunn took a slightly different approach. They believed the key to learning styles was in understanding what they called the “modalities” of the learning experience. Carbo, Dunn, and Dunn theorized that in order to determine a person’s learning style the researcher must look at five basic stimuli with a total of 21 elements (see Chart 2 at the top of the next page). They have designed several self-administered instruments which reflect a person’s learning style from an integrative perspective.⁶

McCarthy

Perhaps the best known person today in the field of learning styles research is Bernice McCarthy, an Illinois educator who has developed an approach to discerning learning styles and curriculum development. She calls this approach the 4MAT™ system.⁷ McCarthy built her approach upon the research of Jung, Myers-Briggs, and Kolb. McCarthy sees the process of learning as

cyclical. Using Kolb’s two continuums as the axis for her circle, she sums up her approach by writing, “There are two major differences in how we learn. The first is how we perceive, the second is how we process” (emphasis McCarthy’s).⁸ In McCarthy’s theory, there are four types of learners.

1. *Innovator Learner*—Asks “Why or why not?” The innovator looks for personal meaning in the educational process. This learner enjoys group activities, the exploration of multiple ideas, and the use of a variety of methods.
2. *Analytic Learner*—Asks “What is it?” The analytic learner learns best when the facts are presented in a logical and organized manner and is most interested in intellectual competence.
3. *Common Sense Learner*—Asks “How does this work?” The common sense learner is looking for solutions to real-life problems and is very pragmatic in his or her approach.
4. *Dynamic Learner*—Asks “What can I make or do with this?” The dynamic learner prefers the trial and error, experimentation mode of learning.

STIMULI	ELEMENTS
Environmental	Sound — Light — Temperature — Design
Emotional	Motivation — Persistence — Responsibility — Structure
Sociological	Self — Pair — Peers — Team — Adult — Varied
Physiological	Perceptual — Intake — Time — Mobility
Psychological	Global/Analytic — Hemisphericity — Impulsive/Reflective

Chart 2 – The 21 Learning Elements

McCarthy recommends the use of Kolb's *Learning Styles Inventory* (LSI) to help students and teachers discover their own learning styles. She believes each lesson should be structured, as she puts it, "going around the circle." Thus, according to McCarthy, each learner in a classroom will be accommodated (in regards to learning style) by using his or her preferred learning approach 25 percent of the time. McCarthy has applied her research in the development of a number of curriculum products utilizing her 4MAT™ system. She believes that while each person has a preferred learning style, each person can learn using other styles. Thus, for her, the 4MAT™ system is the best of all possible worlds. She believes the key to educators' use of learning styles is not only the recognition they exist or the identification of what learner has what style, but the responsibility to change the way one teaches based on learning styles research.

LeFever

In evangelical Christian education, McCarthy's research has been popularized by Marlene LeFever in her book *Learning Styles: Reaching Everyone God Gave You to Teach*. The strength of this work is in LeFever's use of examples of Christian education curriculum which have been designed based on learning styles research. LeFever has led in the redesign of David C. Cook's *Bible-in-Life* curriculum utilizing a modified form of McCarthy's 4MAT™ system.

Gardner and Bruce

Howard Gardner, a Harvard professor and disciple of Jerome Bruner, has developed a theory of what he calls, "the seven intelligences."⁹ He believes that one of the greatest problems in the American

educational system is that children have not been taught how to think. His theory proposes some specific ways to do just that. Gardner's seven intelligences or ways of knowing are:

1. Verbal/Linguistic intelligence—Learns by speaking
2. Visual/Spatial intelligence—Learns by seeing
3. Body/Kinesthetic intelligence—Learns by movement
4. Musical/Rhythmic intelligence—Learns by music
5. Mathematic/Logical intelligence—Learns by questioning
6. Interpersonal intelligence—Learns by socializing
7. Intrapersonal intelligence—Learns by oneself

Gardner holds that each person can think in each of these seven ways, although each person will have a preferred intelligence (or combination of intelligences). Thus, a person could be a genius musically but do very poorly in school because he or she does not have high verbal/linguistic intelligence. Barbara Bruce, a Christian educator, has applied Gardner's theories directly to teaching the Bible. Her two books *7 Ways of Teaching the Bible to Children* and *7 Ways of Teaching the Bible to Adults* provide a myriad of methodologies designed to stimulate learning regardless of the intelligence style preferred by one's students.

Warnings About Learning Styles Research

What can we conclude about learning styles research and what does it mean for the Bible teacher? Here are three warnings.

1. Remember that learning styles theories are just theories. While most of them appeal to common sense, learning styles theories remain theories. This certainly does not mean the average educator should not get involved in the process, but that educators, especially Christian educators, should be very careful about implying a particular learning styles theory is 100 percent correct. At present, it is possible there is some truth in all of the theories.
2. There is a danger that teachers will start to view their students only as a particular learning style instead of as a whole person. Used incorrectly, discovering the learning styles of students could possibly do more to reinforce the biases of the teacher than to help the students learn more effectively.
3. There is also the danger that students who discover their learning styles will begin to view themselves only as a particular learning style, limiting what they may be able to do in educational settings. Use of learning styles assessments should not take away from a student's self-esteem and willingness to try new educational experiences. While there are many assessment tools available in this field care should be taken not to place absolute trust in any one tool by itself. Learning theory assessments should be viewed as "leading indicators" but should be evaluated in concert with several types of assessments, not just one.

Six Principles for Applying Learning Styles Theory to Bible Teaching

There are six principles for applying learning styles theory to Christian education.

1. It is clear from research that learning styles do exist. There are questions about how to describe all of the different styles and how to assess them, but most educators would agree with Carbo, Dunn and Dunn: *learning styles are like fingerprints—we all have them and they are all unique*. Thus, increased knowledge about learning styles should lead to a celebration of diversity and individuality. God has made each learner unique, and for that we can glorify Him!
2. The existence of learning styles is due to both nature and nurture. Since learning styles are due in part to the way in which God has created each human being, there are aspects of learning styles which will not change. On the other hand, since certain aspects of learning styles are due to nurture, there are elements which may be open to change, depending upon the environment. The problem is that there is no way to determine what is due to nature and what is due to nurture. There is, thus, a caution in both directions: as educators, we must be careful not to try to change in a student that which cannot be changed, while at the same time, we should not assume any aspect of learning styles is "in concrete."
3. There is not a hierarchy of learning styles. Thus, learning styles are not bad or good but ethically neutral. This does not mean, however, that certain learning styles may not be better in certain situations than other learning styles. Rather, each learning style, like each human

personality, has its strong points and weak points. This unique combination of strengths and weaknesses does not in itself make a person better or worse than another person.

4. The responsibility for understanding learning styles and making any changes required by that knowledge falls primarily on the leader of the educational process, whether it be a parent, teacher, or administrator. Teachers who study learning styles without asking themselves how this knowledge will impact their classroom performance are sadly missing the point.
5. A variety of assessment tools and approaches should be used in determining the learning styles of the students or the teachers. While a number of the assessment tools have been widely used and have had some intercultural validation

(Kolb's LSI), there is not one assessment which has been proven 100 percent accurate for all people all of the time. Not only should a variety of assessments be used, but assessments should be done on a regular basis, especially for younger students, whose learning styles change over time.

6. There should be an emphasis on the application of learning styles theory to a variety of contexts. While learning styles theory can be helpful to you as a spouse and a parent, perhaps the greatest value of learning styles is in helping you, as a teacher, to understand your own learning style. The better you can understand yourself as a teacher and how you perceive and process information, the better teacher you will become.

Let's Get Practical

The study of learning styles is important because it focuses attention on the wonderful diversity in human beings. Teachers must be reminded that their primary responsibility is not to teach a subject but to teach students! Effective teaching, whatever the subject, is dependent on a thorough knowledge of the student, including the student's learning style.

Guild and Garger, though writing for a secular educational audience, state clearly why the study of learning styles is important for any educator:

Our experiences in studying and applying research on styles, teaching about styles, and listening to students and fellow educators talk about styles leads us to believe that style is the most important concept to demand attention in education in many years. Style is at the core of what it means to be a person. It is an old concept that has been explored for centuries, but recently infused with new energy and direction. It is essential to any educator's philosophy of education, and consequently it affects how we view our educational system . . . Perhaps, more importantly, it calls upon educators to recognize actively that people are different, and these differences inevitably surface when people learn, teach, supervise, and develop programs.¹⁰

If learning styles are important for the secular educator, they are much more

important for the Christian educator!

For Further Discussion

1. Name Bible characters who manifest each of McCarthy's learning styles.
2. Find at least one biblical example of each of Gardner's seven intelligences.
3. Name at least one methodology for each of Gardner's seven intelligences that could be used to teach the Bible.
4. Are certain learning styles predisposed to do well in certain courses and not so well in others? Is there a particular learning style predisposed to learning the Bible?

Notes

1. James W. Keefe and Herbert J. Walberg, *Teaching for Thinking* (Reston, VA: National Association of Secondary School Principals, 1992), 4.
2. Marie Carbo, Rita Dunn and Kenneth Dunn, *Teaching Students to Read through Their Individual Learning Styles* (Englewood Cliffs, NJ: Prentice-Hall, 1986), 2.
3. Pat Burke Guild and Stephen Garger, *Marching to Different Drummers* (Alexandria, VA: Association for Supervision and Curriculum Development, 1985), 6-10.
4. David Kolb, *Experiential Learning: Experience As the Source of Learning and Development* (Englewood Cliffs, NJ:

Appendix D - "Learning Styles"

- Prentice-Hall, 1984).
5. For more information on Kolb and his LSI (Learning Styles Inventory) visit the website <http://trgmcber.haygroup.com>.
 6. For more information on the work of Drs. Rita Dunn and Kenneth Dunn and the inventories they have designed, visit their website, <http://www.learningstyles.net>.
 7. Bernice McCarthy, *The 4MAT System: Teaching to Learning Styles with Right/Left Mode Techniques* (Barrington, IL: EXCEL, Inc., 1980).
 8. *Ibid.*, 3.
 9. Howard Gardner, *The Unschooled Mind: How Children Think and How Schools Should Teach* (New York, NY: Basic Books, 1991), 11-13.
 10. Guild and Garger, viii-ix.