Applying What We Know  
Student Learning Styles

By Dennis W. Mills Ph.D.

Research tells us that we now have 100% new information every five years. If that trend continues, students who are in grades one through three will graduate during a time where, in some technological fields, there will be new information every 38 days. That could mean that the information they learned this month may be outdated two months from now!

David Kearns, former CEO of the Xerox Corporation, defines "uneducated" as "not knowing how to keep on learning."

That is telling us that as teachers we need to help our students learn how to be life-long learners. If students haven’t learned how to learn, they may not be able to be effectively trained in a career that they choose.

You and I receive new information every day that we live. Understanding how we naturally take in and process that information will go a long way toward making us life-long learners. Helping our students understand how they naturally take in and process information will go a long way toward making them life-long learners.

We know that people are not all alike. We each see the world in a way that makes the most sense to each of us as individuals. This is called perception. Our perceptions shape what we think, how we make decisions, and how we define what’s important. Our individual perception also determines our natural learning strengths, or learning style.

Since we are not basically alike, when we approach a learning task or situation, we do not all benefit from the same approach. Each individual has his or her own unique learning strengths and weaknesses. It is vital for us a teachers to deliberately use a variety of methods to reach the students.

There are many approaches to individual learning styles. One of the most effective models for use in learning comes from the research of Anthon F. Gregorc and Kathleen A. Butler. The Gregorc model provides and organized way to consider how the mind works.

There are two perceptual qualities: concrete and abstract.

Concrete: This quality enables you to register information directly through your five senses: sight, smell, touch, taste, and hearing. When you are using your concrete ability, you are dealing with the obvious, the "here and now." You are not looking for hidden meanings, or making relationships between ideas or concepts. "It is what it is."
Abstract: this quality allows you to visualize, to conceive ideas, to understand or believe that which you cannot actually see. When you are using your abstract quality, you are using your intuition, your imagination, and you are looking beyond what is to the more subtle implications. "It is not always what it seems."

Although all people have both concrete and abstract perceptual abilities to some extent, each person is usually comfortable using one more than the other. The person whose natural strength in the concrete, for example, may communicate in a direct, literal, no-nonsense manner. The person whose natural strength is the abstract may use more subtle ways to get a point across.

There are two ordering abilities in Gregorc’s model:

Sequential: Allows your mind to organize information in a linear, step-by-step manner. When using your sequential ability, you are following a logical train of thought, a traditional approach to dealing with information. You may also prefer to have a plan and to follow it, rather than relying on impulse.

Random: Lets your mind organize information by chunks, and in no particular order. When you are using your random ability, you may often be able to skip steps in a procedure and still produce the desired result. You may even start in the middle, or at the end, and work backwards. You may also prefer your life to be more impulsive, or spur of the moment, than planned.

Again, both ordering abilities are present in each person, but usually a pattern emerges for using one over the other more comfortably.

There are four combinations of the strongest perceptual and ordering ability in each individual:

1. Concrete Sequential (CS)
2. Abstract Random (AR)
3. Abstract Sequential (AS)
4. Concrete Random (CR)

No one is a "pure" style. Each of us have a unique combination of natural strengths and abilities. By learning some of the common characteristics of each of the four combinations used by Gregorc, we can recognize and value what our students do best. We can help them to improve in areas that are least used and understood.

It is my hope that by understanding your students’ learning styles, you will be better able to adapt your teaching styles and strategies to meet their needs. It is not as important to figure out what a person is as it is to recognize how and why a person is doing something.

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