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"Sit & Get" Won't Grow Dendrites

20

Professional Learning Strategies
That Engage the Adult Brain

Hawker Brownlow
EDUCATION

Contents

Introduction

Adult Learning Theory

Fold your arms. Look down and see whether your right arm is crossed over your left or vice versa. Now, reverse the process. If your right arm was crossed over your left, cross your left over your right.

You have just experienced change. How did it feel? Awkward, unnatural, and uncomfortable are just a few of the adjectives people use to describe their feelings following this activity. These are some of the same adjectives that teachers and administrators use when describing their reactions to new behaviors or skills that they are being asked to implement—awkward, unnatural, and uncomfortable. It has even been said that the only one who truly likes change is a wet baby.

Change is inevitable. In fact, the only way to improve the status quo is to change it. Perhaps the most effective way to increase student achievement is to change the way teachers deliver instruction and students experience it. I once saw a sign that said, "If students don't learn the way we teach them, then we must teach them the way they learn." Sometimes those ways that they learn require us to change the ways in which we teach.

Contrary to popular belief, I don't concur that changes cause people apprehension. It could be the way in which those changes are determined and put into practice. The more we glean about adult learning theory, the more we understand why some educational innovations succeed and others fail.

In the best-seller *Worksheets Don't Grow Dendrites: 20 Instructional Strategies That Engage the Brain* (Tate, 2003), I delineate 20 strategies that appear to take advantage of the way student brains learn best. With minor modifications, these same strategies

work for adult brains as well. There are, however, some fundamental differences in the ways adults approach and partake of learning opportunities. It would do well for anyone who provides professional learning experiences for adults to heed the following six principles.

■ ADULTS LEARN BEST WHEN . . .

They Have Input Into the Selection of the Content and Even Development of the Learning Experiences (Garmston & Wellman, 1999; Little, 1993)

Throughout my 30 years in education, I have worked with many frustrated teachers inundated with mandates being thrust on them by forces beyond their control, such as federal and state departments of education, school system superintendents, and well-intentioned building principals. In the early 1990s, theorists (Senge, 1990; Sergiovanni, 1992) began to revisit the notion that when people are directly involved in the systemic processes of an organization, they are more amenable to the changes that result from their involvement. They wrote about corporations and schools as *learning organizations* where, rather than being told what professional development needed to occur, colleagues worked together to develop a shared vision and make that vision a reality. The professional development was then driven by what the data indicated. This idea is also the basic premise of strategic planning processes available to schools and businesses across the country.

According to adult learning theory, adult learners need as much control as possible over what they will learn, how they learn it, and many other aspects of the learning experience (Roberts & Pruitt, 2003). In 2004, it appears that schools where real change is the order of the day are those that are striving to become *learning communities.* Roland Barth (1990) described these communities as places where both students and adults are encouraging one another as they all actively engage in matters significant to them. Teachers, therefore, have the opportunity to give input into the vision of the school, collegially analyze student data, and develop and execute professional learning experiences that help the vision to be accomplished.

According to Kruse, Louis, and Bryk (1995), there are five major elements of a professional learning community:

1. Colleagues are engaged in conversations about teaching and learning and encouraged to reflect on ways to improve their practice.
2. Increasing student achievement serves as the focal point for these conversations and the decision making that results.
3. Teachers develop professional relationships with other teachers that enable them to observe one another and share best practices.
4. Teachers work collaboratively to generate ideas that enhance learning for everyone.
5. All stakeholders have reached a mutual understanding about the school's mission and its values and norms.

Andragogy, learner-focused education for people of any age, suggests that adults learn best when they have direct input into the planning and execution of the professional learning experiences. This theory is the basis of the timely concept of a school as a professional learning community.

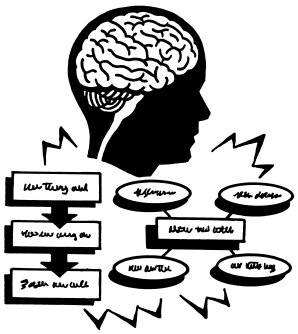
The Learning Is Connected to the Vast Background of Knowledge and Experience That the Adult Brings to the Table (Knowles et al., 1998; Mitchell, 1998)

One of the advantages that adults have in professional development situations over their younger counterparts is the fact that they have simply lived longer and experienced more. This knowledge makes the adult a valuable asset to the learning environment; however, it makes the group of adult learners more heterogeneous than a group of younger students. For these reasons, adults prefer to take charge of their own learning and connect any new knowledge to what they already know.

Because adult learners have experienced so much, they place a higher priority on internal motivators (such as increased job satisfaction, higher self-esteem, improved instructional delivery) rather than external motivators. Therefore, asking adults their expectations for the course or having them give input into the development of lessons is a much more effective technique than providing them with longer breaks or an early dismissal time.

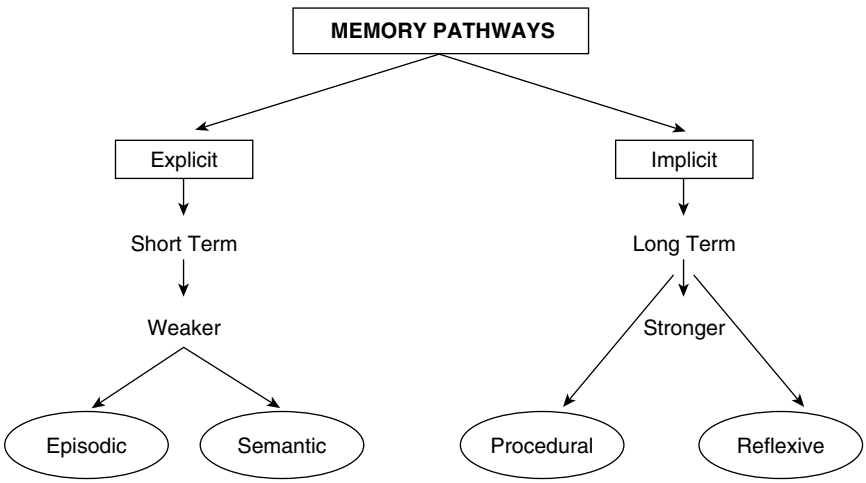
Strategy 5

Graphic Organizers



WHAT: DEFINING THE STRATEGY

In an *Educational Leadership* article titled "Memory Lane Is a Two-Way Street," Marilee Sprenger (1998) discusses the brain's two major memory pathways. She delineates explicit and implicit memory and the characteristics of each. This concept can be fairly difficult to teach; however, when I include it as a part of my course content, participants readily understand and remember the concept and its implications. I use the graphic organizer that follows so that participants can see the similarities and, more important, the differences.



Developed by Tony Buzan (1993), chairman of the Brain Foundation, mind maps or graphic organizers, by their very nature, are brain compatible because they appeal to both left and right hemispheres. They are pictorial representations of linear ideas and show the connectedness of content. Any time I have a concept to teach that can be complicated or relatively difficult to understand, a graphic organizer is in order.

WHY: THEORETICAL FRAMEWORK

Mind maps and word webs differ; maps utilize both words and symbols, rather than just words, to show the connection of ideas visually (Gregory, 2003).

Mind or thinking maps are visual devices that enable people to see associations among aspects of content that are not obvious during the use of linear techniques, such as outlining or note taking (Wolfe, 2001).

When the best mind maps are complete, the notes make a pattern of colorful, pictorial ideas with main points in the middle and subideas branching outward from there (DePorter, Reardon, & Singer-Nourie, 1999).

Graphic organizers can be referred to as *power pictures* because they paint important pictures on the brain (Sprenger, 1999).

Mind maps can be used both individually or in cooperative groups to represent an agenda or lecture notes, outline a unit of study, or represent critical attributes of major concepts (Parry & Gregory, 1998).

Because our thinking patterns are both linear and random, the process of learning is enriched when the brain makes numerous associations through graphic organizers, mapping, or mindscapes (Jensen, 1997).

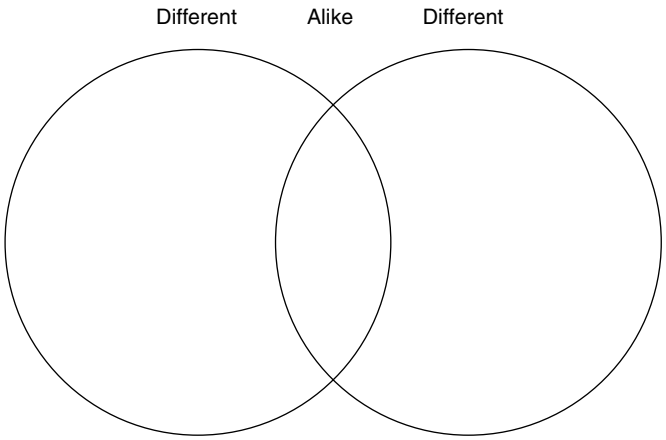
Understanding of concepts, whether those concepts are concrete, abstract, verbal, or nonverbal, can be enhanced through the use of concept maps (Sousa, 1995).

Thematic maps are absolutely crucial for establishing connections that can assist in the transfer of knowledge (Caine & Caine, 1994).

Mind mapping, as a method for note taking, works in concert with brain research rather than against it (Buzan, 1993).

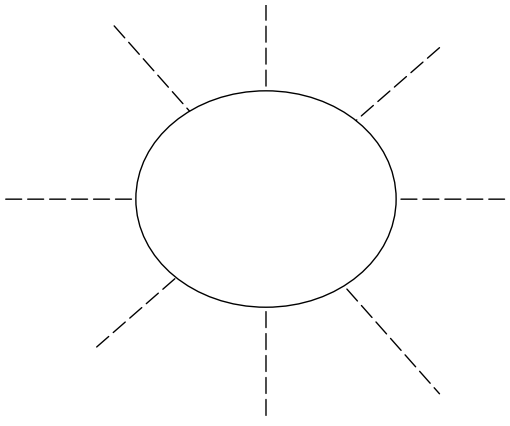
HOW: SAMPLE PROFESSIONAL LEARNING ACTIVITIES

• Participants should use the Venn diagram anytime two or more parallel concepts are being compared or contrasted. For example, the following graphic organizer is the ideal tool for comparing and contrasting traditional scheduling with block scheduling. Ways in which the two concepts are alike are included in the inner circle. Differences are reflected in the two outer circles.



Venn Diagram

• A web organizer has a multitude of uses. Participants utilize the web when brainstorming ideas, recalling facts about a particular topic previously discussed, delineating the main idea and details of a concept, or showing a vocabulary word and its synonyms. For example, when discussing staff members' ideas for accomplishing a school's mission, recommendations could be brainstormed and written on a web for all to consider.



Web