INDELIBLE LEARNING

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Three succinct principles of permanent or indelible learning are:

1. The learning is meaningful to the student.
2. The student experiences strong emotions about the learning.
3. The student applies the learning within twenty-four hours.

Without these three, teaching amounts, in effect, to a light dusting on the brain's surface that quickly blows away without settling in for deep impact.

The whole panoply of modern psychological thought about learning emphasizes learners being involved meaningfully and actively within the lesson.

Meaningfulness is enhanced by involving learners in goal setting, planning projects, providing advance organizers, pupil-teacher planning -- in short, democratic involvement and student voice builds significant commitment and participation.

Experiential learning, active learning, learning by doing, hands on learning, trying your wings, all express the vital involvement of the learner in order for relevant learning to occur and provide for application of learning. If a student does not apply the learning to some meaningful link in the brain, the curve of forgetting takes over and the learning is lost.

Under brain theory, learnings based on these two principles build patterns and programs in the brain and provide feedback loops. Experimental evidence suggests far more "connections" or physical development of brain dendrites form when the student is immersed in an enriched environment.

How does the emotional aspect fit into this? This learning principle is the vital component in brain concept for it is perhaps the most *motivating force* of the three. It touches the very soul of the student's consciousness in responding to the learning challenge. We think it activates the "mid-brain" a control center for emotions which catalyzes thorough and deep learning through imagery.

We may not understand how that works, but the process resides in part of our deep physical makeup that goes far back in evolutionary times.

Consider the example, educator trainer, Susan Kovalik uses. She asks workshop teachers and administrators to recite, Mary had a little lamp.... They do so and she

compliments them, by asking, "Excellent! Do that often?" Of course, most haven't recited it for years. They remember because of strong emotional ties with pleasure and accomplishment felt as a small child with the poem. That emotion resulted in permanent learning!

In practice these three learning principles are closely interwoven and hard to separate. The student who researches a topic of interest and prepares a presentation experiences all three. The topic is of interest, hence meaningful; the student does the searching, finding and organizing of information and presents or teaches it, thereby applying the information and experiencing a thrill of accomplishment -- ergo, all three principles and far deeper and more permanent learning.

Brain compatible education means that what occurs in schools is congruent with that how that extraordinary, complex organ in our head is designed and operates. All three learning principles must be present in the learning process otherwise it will spring a leak and learning will not take place. The lesson must be *meaningful* in content, material, and delivery to be clearly understood and motivational to maintain an adequate attention span. The lesson must provide for meaningful *application* to be better understood so the student can actually experience the learning by doing principle. The lesson must have *emotional* communication to maintain the learning alive. With these three principles governing the learning plan, motivation to learn flourishes.