Modeling the Learning Process

James Zull. *The Art of Changing the Brain*  
(Sterling, VA: Stylus Publishing, 2002)
4 Basic Functions the Brain Uses for Learning

- Getting Information
- Making Meaning of Information
- Creating New Ideas
- Acting on Those Ideas
Learner *Begins* as Receiver of Knowledge
Gathering
Information Enters through Senses

• Can you remember four things that influence this gathering?

• Interest
• Intent
• Basic Background (prior knowledge)
• Understanding
Gathering takes place in the sensory cortex
Learning Styles

Gathering

You will use your preferred sensory mode to gather and reinforce with other two.

• You gathered information about three ways of looking at learning styles
Analyzing to Make Meaning

REFLECTION

• Try to make personal
• Try to determine connection to past experiences
• Try to discover relevance and usefulness
• Try to discover what it's like that we already know.
Analyzing takes place in the Back Integrative cortex
Learning Styles

Analyzing

• You made the learning styles more personal by determining what your preferences are
Creating
Convert comprehension to

• Ideas
• Hypothesis
• Plans
Learning Styles
Creating

• You predicted strategies you should start with

• And those you should add for reinforcement.
Creating Takes Place in the front integrative cortex
Acting
Testing Ideas

- Writing
- Speaking
- Drawing

Can you think of other ways?
Acting Takes Place in the Motor Cortex
Learning Styles

**Acting**

Your response to your predictions
Uses multiple intelligences

You

- Created a song
- Drew Maps
- Constructed Power Points
- Took Practice Tests
Learner becomes

Producer of Knowledge