**Objective**
To provide language and other intelligence analysts with evidence-based course materials for improving divergent thinking.

**Definition**
*Divergent thinking* is the ability to flexibly generate multiple, useful, alternative solutions to a problem. These alternatives include both common and uncommon solutions that require overcoming mental fixation and considering all possibilities.

**Findings**
CASL’s literature review and original research reveal that:

- **The currently best known method for improving divergent thinking involves a focus on cognitive processes.** Combining the features of two or more familiar concepts into a novel concept is a particularly good, easy-to-adopt strategy for displaying greater creativity in one’s divergent thinking.

- **The right side of the brain is specialized for discovering meaningful novel combinations of familiar concepts.** Solutions to problems requiring such novel combinations come to mind more easily in individuals who show more right-brain alpha waves than average, particularly after the individuals are trained to use brain-based biofeedback to self-regulate these brain waves.

**Relevance**
Divergent thinking is a core competency required of all intelligence community professionals that allows individuals to generate “outside the box” hypotheses to explain a body of evidence or identify multiple potential solutions to complex problems. CASL has developed a course aimed at improving analysts’ divergent thinking, enabling analysts to better incorporate alternative analyses into their products, as required by the Office of the Director of National Intelligence analytic tradecraft standards. The course has been piloted with both language analysts and other intelligence analysts from various U.S. government agencies and departments. Course exercises and assessments use scenarios that are relevant for analysts.

CASL is also conducting studies designed to provide government employees with a method to easily regulate their own brain activity to improve creative problem solving.

**Reports**
- *An evidence-based course for improving divergent thinking: Training cognitive strategies* (February 2011)
- *Effects of word association and gender on divergent thinking* (May 2010)
- *Right-brain alpha neurofeedback improves verbal creative problem solving* (October 2009)

**For More Information**
For more information about this project or for a copy of the reports, contact us:

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