

## Cranium CoRE Research Summary

### The Framework

Practice, Practice, Practice. (*Outliers* by Malcolm Gladwell). This key piece of the mastery (*Drive* by Daniel Pink) puzzle for language arts skill development also has three of the five essential elements delineated by the National Reading Report 2000, vocabulary, fluency and comprehension, woven into the fabric of Cranium CoRE. There is high engagement and intrinsic motivation leading to a fun form of practice by reading, playing and discussing wrapped in the attractive packaging of a TV style game show in teams with HOT (Higher Order Thinking) questions within a social network. There is a writing component allowing teachers and students to learn how to compose HOT questions and contribute to the community.

Within this framework, Cranium CoRE utilizes the best practices identified by well known researchers. They include:

#### Read Aloud/Along/Fluency/Vocabulary

Jim Trelease (2006) *The Read Aloud Handbook*

Stephen Krashen (2004) *The Power of Reading*

#### Listening

Michael F. Opitz and Matthew D. Zbaracki (2004) *Listen Hear!*

#### Discussion/Conversation/Vocabulary

Maria Nichols (2006) *Comprehension Through Conversation*

Richard Allington (2006) *What Really Matters for Struggling Readers*

#### Writing/Vocabulary

Strickland, Ganske, Monroe (2002) *Supporting Struggling Readers and Writers*

#### Higher Order Thinking

Maryland State Dept. of Education (1991) *Better Thinking and Learning*

Thomas and Thorne (2010) Center for Dev. & Learning *Higher Order Thinking*

Ellin Oliver Keene and Susan Zimmerman (2007) *Mosaic of Thought*

#### High Engagement Using Technology

Larry D. Rosen (2010) *REwired*

#### Intrinsic Motivation

Alfie Kohn (1999) *Punished by Rewards*

Daniel Pink (2009) *Drive*

#### Teamwork/Collaboration

Marilyn Friend and Lynne Cook (1992) *Interactions: Collaboration Skills for School Professionals*

Judith Haymore Sandholtz and others (1997) *Teaching with Technology: Creating Student Centered Classrooms*

### The Evidence

Ongoing studies are taking place in Palm Beach County, Florida and Memphis, Tennessee. Cranium CoRE is being used across the curriculum in a variety of settings and age groups. These include ESOL, AP, AVID, Intensive Reading and other classes. The results indicate a very high level of engagement for reading and discussion.