

# Whole Brain Learning and Movement in the Curriculum

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## Whole Brain Learning



- Contrary to what some would lead you to believe, there is **no such thing as right-brain learning or left-brain learning**. There are only preferences where more of one hemisphere is activated than another. There is no learning taking place only in the upper cortex or only in the brain stem. Our brain is highly interactive.

• Eric Jensen, 2000

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## What is Whole Brain Learning?



- Learning in accordance with the way the brain “naturally” is designed to learn;
- A multidisciplinary approach that is built on the fundaments question “what is good for the brain?”;
- It is a different way of thinking about learning;
- Considers the nature of the brain in the decision making process

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## Whole Brain Learning



- Integrates the flow of information within the brain;
- Restores innate ability to learn and function at top efficiency;
- Activities help us energize and keep learning channels open;
- Enrich learning experiences;
- Increase ability to self-correct;
- Learners can identify relationships among various disciplines.

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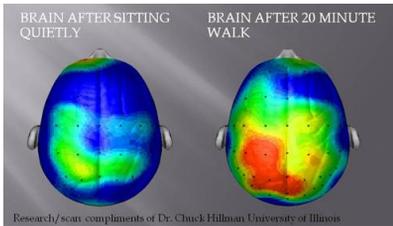
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## Proof it works!




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## YES!! There is a relationship



- Test scores;
- Classroom behavior;
- School attendance
- Social success/Peer interaction;
- Psychological well-being/Stress relief;

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### Overview of Research



- “Movement is good not only for the heart, but also for the brain, feeding it glucose and oxygen, and increasing nerve connections, all of which makes it easier for students of all ages to learn. Numerous studies show that students who move do better in school” (Newsweek, 2/19/96)
- Improved balance improves spatial skills needed to read letters from left to right on a page

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### Overview of Research Cont’d



- “What makes us move is also what makes us think. Movement can produce chemical alterations that give us stronger, healthier, and happier brains. A better brain is better equipped to think, remember, and learn.” (Dr. John Ratey, *A User’s Guide to the Brain*)
- Movement counteracts learned helplessness and causes positive learning states particularly for students with learning differences (Jensen, 1996; 2000, 2012)

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### Overview of Research Cont’d



- Students who engage in daily movement activities show superior academic performance, and attitude toward school as compared to their counterparts who do not have movement activities (Pollatscek & Hagen, 2011)
- 85% of students are natural kinesthetic learners.
- Cross lateralization (crossing the midline) uses the same neural connections that the brain uses to read, write, spell, and process math (Blaydes, 1996, 2000, 2013)

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### Jean Blaydes-Madigan, Neurokinesiologist



- “Movement, physical activity, and exercise change the learning state into one appropriate for retention and retrieval of memory...This evidence is a sound argument for daily movement in the classroom”

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### FACTS:



- All things being equal, a student who moves in the classroom will have an **ADVANTAGE** in learning and a student who does not move in the classroom has a **DISADVANTAGE** for learning (Hesslow, 2012)

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### % of Retention



- 30% of what they SEE
- 50-60% of what they SEE & HEAR
- 60-70% of what they SEE, HEAR & SAY
- 98% of what they SEE, HEAR, SAY & DO

Jean Blaydes-Madigan

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### Eric Jensen 2000



- “Classroom teachers should have kids move for the same reason that the physical education teachers have kids count. Physical education, movement, drama, and the arts all add to, rather than detract from, the ‘core curriculum’”

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### Integration of Movement



- In this day of accountability, many schools are focusing on reading, writing and math.
- Based on the research, shouldn't we be integrating movement into our curriculum?
- Truly...what do we have to lose??

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### Classroom Energizers



- Energizers are classroom based physical activities that integrate physical activity with academic concepts. These are short (about 2-10 minutes) activities that classroom teachers can use to provide activity to children which corresponds with the curriculum.
- <http://www.ncpe4me.com/energizers.html>
- <http://www.pecentral.org>

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