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Active Learning

Purpose: Is to educate teachers on kinesthetic learning and discover ways to help teachers collaborate to help validate learning requirements in life using the body! We need to teach to the whole child!

➤ "It is no more a PE teacher's fault that this nation has an obesity epidemic than it is the classroom teacher's fault that some children struggle in reading or other subject areas. It is time that all teachers look at the "whole child" and discover ways to help each child learn to the best of his/her ability! It is our responsibility to start working together so we can set our students up for successful learning."

➤ "When teachers collaborate in subject areas, they validate the importance of learning that subject. When students see that two or more teachers discuss similar information, students learn through repetition, and students see the subject as being important. The same thing is true with parents being involved in the learning process. If parents say reading is important and promote practice, children will be more likely to read. If parents promote healthy eating and exercise, their children will be more likely to engage in those same healthy lifestyle behaviors." Lori Smith

➤ Children need a minimum of 60 minutes of physical activity daily. Most schools do not have daily PE. Kids who are not natural movers will not move during recess. Students need structured movement opportunities in order to become effective, efficient movers for life.

➤ "Quality daily physical education should be offered to every child in order for schools to help kids improve their overall fitness levels. Reading scores and math scores would not be expected to improve if teachers were only required to teach these concepts once or twice a week. If PE is not offered daily, opportunities to move or engage in physical activity must be implemented into the classroom to help kids become better learners and become healthier children.

➤ Most students, up to 85%, are pre-dominantly kinesthetic learners. (Hannaford)

➤ When people engage in exercise, glucose and oxygen (brain food), will circulate to the brain. Movement, physical activity, and exercise change the learning state into one appropriate for retention and retrieval of memory, the effects lasting as much as 30-60 minutes depending on the student. Jean Blaydes Madigan Thinking on Your Feet

➤ "Our physical movements can directly influence our ability to learn, think and remember. Our physical movements call upon some of the same neurons used for reading, writing, and math. Physical active people report an increase in academic abilities, memory, retrieval, and cognitive abilities. Certain kinds of exercise can produce chemical alterations that give us stronger, healthier, and happier brains. A better brain is equipped to think, remember and learn." Dr. John Ratey, A User's Guide to the Brain.

"Our children's hearts are in our hands."

Why children need to move?

(McCall and Craft, 2000)

“The critical time for the development of motor skills is between eighteen and sixty months of age” (Charlesworth, 1992).

- Movement helps children grow intellectually, emotionally and physically
- Movement helps children’s brains develop – create nerve cell networks that are essential for learning.
- Carefully planned progressions that lead to success can improve the self-concept of children.
- Children who lack experience in movement could experience delay due to the lack of repetition.
- Children who learn to be successful movers during their childhood are likely to become active movers throughout their lives.
- Children need meaningful movement experiences. There needs to be organization and purpose to what they are doing so they can become the most efficient, safe movers.

Defining Movement

Motivation – Inspired to Move

Movement – One must go into a state of not being still

Physical Activity – Voluntary Movement that expends energy

Exercise – Raising the Heart Rate into a Target Heart Rate Zone

How Can We Move?

Walk, March, Run in Place, Hop, Jump (jumping jacks, skier jumps, scissors jumps, x-cross jumps), Skip, Gallop, Dance, Cheer Moves, Heel Jacks, Toe Touches, Flexibility (stretching body parts), Strength (Sit-ups, Push-ups), Animal Actions, Tip Toe, Grapevine, Rainbows with arms, clapping, hand jives, group high fives.

Locomotors

Location (Personal Space/General Space)

Pathways (Straight, curvy, zig zag)

Force (light, medium, heavy)

Speed (slow, medium, fast)

Direction (In place, forward, backward, sideways, over, under, around, up, down)

Relationships - with people – (lead, follow, mirror), with partners, with groups

Locomotors = Walk, Run, Gallop, Skip, Jump, Hop, Slide and Leap

Music

(Eric Jensen, Music with the Brain in Mind) Music contributes to the development of essential cognitive systems, which include reasoning, creativity thinking, decision-making and problem-solving.

➤ Early childhood is a great time to expose children to music. Test the child's readiness by starting with singing, clapping, expose them to a wide variety of rhyming, use instruments and be a light hearted role model.

➤ In one study, 4 year olds who were exposed to 1 hour of classical music daily had EEG readings that showed greater brain coherence.

➤ In another study, researchers discovered that music had an impact on newborns and premature babies. Those who heard lullabies for one hour each day reduce their hospital stay by 5 days, normalized their weight quicker, and showed evidence of lower stress levels.

➤ By 12-24 months, infants can incorporate body movement (head nodding, clapping and tapping) into the music.

➤ By age 4, rhythm games should be included because the brain's left hemisphere has had time to develop. Kids love silly songs because their language skills have developed and they love the rhyme.

➤ Music helps control behavior – Jean Blaydes Madigan “Thinking on Your Feet”

➤ Repetitive rhythmical patterns strengthen the internal dialogue needed to read silently. Reading and problem solving skills are linked to the mastery of beat competence and beat awareness. The brain is hard wired for rhyme, rhythm, movement and emotion. The brain seeks patterns. The brain likes challenges, feedback and physical activity. Jean Blaydes Madigan – “Thinking on Your Feet”

Before You Start to Move?

✓ Discuss safety!

✓ Establish boundaries for every activity. Children need a safe place to move.

✓ Have specific protocols in place. Discuss your listening positions and practice them daily. Where do the children stand or sit? How should they stand or sit?

✓ Transitions should be smooth. Give them a goal or timeframe to reach an area/spot to start.

✓ Give them a visual demonstration.

✓ Get their attention – Stop or start music.

✓ Be enthusiastic! It is contagious! Be expressive!

✓ If you use equipment of any kind, establish a freeze position before they get the object in their hands! Give a visual demonstration of how to use the freeze position

✓ Give brief, clear instructions.

✓ Provide objective feedback.

Memory and Learning:

“I hear and I forget. I see and I remember. I do and I understand!” Confucius

Cathie Summerford Action-Packed Classrooms K-5: Using Movement to Educate and Invigorate Learners

- ➔ **10%** of what they **read**
- ➔ **20%** of what they **hear**
- ➔ **30%** of what they **see**
- ➔ **50%** of what they **see** and **hear**
- ➔ **70%** of what they **discuss**
- ➔ **90%** of what is **experienced**
- ➔ **95%** of what is **actively taught**

Activities

(All of the brain links are from Jean Blaydes Madigan's Book:
Action Based Learning: Thinking On Your Feet)

Finger Flashes – (Groups and Music) Divide the class into equal groups. Each person in the group will count to three and each hold up a hand with fingers showing from 1-5. The group will add the total number of fingers showing. Divide that number by 2 and that is how many jumping jacks the group will perform on the first round. The group will follow a leader until the music stops and then the group will count to three and show their fingers again. The group will add and divide by three again and a new exercise can be done (stretching, sit-ups, push-ups, toe touches, crab kicks, etc.) Repeat several times with different locomotor movements in general space and new exercises. Math challenges can change too – subtract 2, add 3, multiply by 3 etc.)

**Brain Link = Working in groups satisfies our social brain. The brain is social and likes to work in cooperation with other brains to problem solve.

**Academic Concept = Math Concepts, Addition, Subtraction, Multiplication and Division.

**PE Concept = Cardiovascular Endurance, Muscular Strength, Cooperation, Flexibility

Take 5 – (Partners and Music) The object of this activity is to eliminate your partners hands by tapping fingers to add up to 5. Divide the class into partners. Each person in the partner group will start with one finger on each hand pointed toward partner. Partner one taps the partner 2 with a finger. That tap will give the partner 2 another finger because $1 + 1 = 2$. Partner 2 taps partner 1 with the hand with 2 fingers. Partner 1 now has 3 fingers. Partner 1 taps partner 2 with the hand that has 3 fingers to partner 2 who has 2 fingers. Because partner 2 now has a number of fingers that adds up to 5, that hand is out. Partner 2 only has one hand to work with. If more fingers are tapped to the other partner that exceed 5, just keep adding that numbers to that hand until the sum is determined. For example, if partner 1 passes partner 3 and partner 2 has 3 fingers showing, then partner 2 will add the $3 + 3$ fingers and end up with 1 finger on that hands. If a partner wants to get their other hand back into play, he/she can pass fingers to their other hand if they have over 2 fingers. If a partner opts to pass a finger, that is his/her turn. The partner who has both hands eliminated, will perform the movements designated for the activity (stretching, sit-ups, push-ups, toe touches, crab kicks, etc).

**Brain Link = Working in groups satisfies our social brain. The brain is social and likes to work in cooperation with other brains to problem solve.

**Academic Concept = Math Concepts & problem solving.

**PE Concept = Cardiovascular Endurance, Muscular Strength, Cooperation, Flexibility

Arrow Movements

- On construction paper or regular paper, draw a series of arrows pointing in different directions (up, down, left, & right)
- make a pointer out of two hand, following the arrows and point your hands in the direction they point. Do this in order and in an even rhythm and always come back to the middle of the body with a clap.
- Start a jumping pattern, jump, bounce, jump, bounce, like jumping a long rope. Keeping the pattern, use your pointer to follow the arrow sequence.

- Without a jump, try to point opposite of the arrow.
- With a jump, point opposite of the arrow.
- With a jump, use both hands to point with the arrow.

****Brain Link =** The brain is hard wired for rhyme, rhythm, movement and emotion. The brain is a pattern-seeking device. Repetitive rhythmical patterns strengthen the internal dialogue needed to read silently. Reading and problem solving skills are linked to the mastery of beat competence and beat awareness. Crossing the midline energizes the brain. The brain seeks patterns. The brain likes challenges, feedback, and physical activity. Jumping increases vestibular fitness that prepares the brain for reading.

****Academic Concepts =** Reading left to right, memory

****PE Concept =** Locomotor Movements, Rhythms, Cardiovascular Endurance

Slap Clap Snap Tap (Jean Blades-Madigan) – (Equipment = Music “Showtime” by Learning Station - Get Funky) Have students sit in listening position. When the music starts begin with Slap = thighs, Clap = Hands, Snap = fingers, Tap = shoulders! The ap family! Add some other movements like hands up and heel clicks and head, shoulders, knees and toes.

****Brain Link =** Internal dialogue, the little voice inside your head talks to you silently, is necessary for reading. It develops when external rhythms are recognized. The brain is hard wired for rhyme, rhythm, movement and emotion.

****Academic Link =** Word Family Association, Rhyming

****PE Concept =** Rhythms, Coordination, Body Awareness

Tony Chestnut Song– (Tony Chestnut -- The Learning Station or Literacy in Motion) This song helps students understand homophones. Listen to the song and point or move body parts. To = touch your toes, ny = touch your knees, Chest = touch your chest, nut = touch your head, Knows = touch your nose, I = point to your eyes, love = cross arms over your chest, you = point to a partner, Sister = fluff your hair, Eileen – point the eye and lean over with balancing, Neil = kneel down on one knee, Pat = pat your knees, Bob = stand and bob up and down, Russell= run in place etc.

****Brain Link =** The brain is attracted to novelty. Cross lateralization strengthens neural connections. Movement stimulates the vestibular system needed for the ability to see letters left to right on a page.

****Academic Link =** Sentence structure, homophones, word use

****PE Concept =** Stretching, Body Awareness, Rhythms

Green Eggs and Ham – Equipment = Music and Bean Bags -- Green Eggs and Ham – The Learning Station (Rock and Roll Songs that Teach) – Students will each have a bean bag or wadded up piece of paper. The bean bag will be handed off from left to right, then tossed up and down catching with two hands, repeat the handing off and tossing up and down. When the song says flip ‘em, toss object from left to right and repeat sequence.

****Brain Link =** Cross lateral movements (crossing the midline) use the same neural connections, as the brain requires for reading, math, and math processes. Therefore, activities that cross the midline strengthen and

prepare the brain for learning. When we cross the midline, the brain organizes and energizes itself for better learning. Eye tracking strengthens the muscles needed in reading left to right.

****Academic Link = Celebrating Literacy, Repetition**

****PE Concept = Hand-Eye Coordination, Tossing and Catching, Rhythms, Tempo**

Variation: Have students stand up and down according to words in the music. Divide the class into two groups.

Odd and Even Dice – The teacher will roll a die. If the die is an even number the students will march 6 times. If the die is an odd number, the students will do 6 jumping jacks. Encourage the students to use different movements. Each student can have their own die to use and perform movements in general space each time he/she rolls. Have students work in partners and add, subtract or multiply numbers for movements. Odd and even numbers on the dice could mean verbs or nouns. Have a student come up with a verb if the number is odd and then perform the designated movements. The partners can use the word in a sentence.

****Brain Link = Movement enhances system maturation according to Eric Jensen. Movement reinforces academic concepts. Raising the heart rate may grow new brain cells.**

****Integration = Math Concepts, Odd and Even, Language Arts (verbs and nouns).**

****PE Concept = Locomotor Movements, Cardiovascular Endurance**

Partner Find – (Equipment = Music)

Students move in general space. When the music stops, students must find a partner, march in place and face each other. Taking turns, they will need to find three different partners to memorize – spelling partner (someone who will give a word to spell ex: how do you spell “cat”) a contraction partner (someone will say the word or words that can be made into a contraction like cannot and the partner will say the contraction “can’t”) and a compound word partner (one partner will say a word and the partner will say another word to make it a compound word = base...baseball. When the music stops the teacher will call out which partner to find and the thinking begins. Memorization is needed to identify partners.

****Brain Link = Movement facilitates cognition. Social interactions and movement are both needed for the brain to work effectively. The brain is social. Exercise boosts brain function. Movement with intention anchors the concept of action verbs. Raising the heart rate feeds the brain its needed nutrients (glucose and oxygen) Endorphins are raised through exercise and positive social interaction.**

****Academic Link = Cooperation, Memory Exercise, Locomotor movements, Language Arts Concepts**

****PE Concept = Cooperation and Cardiovascular Endurance**

Switcheroo Spelling – (Ball and/or bean bag, music and spelling words)

Students are in partner formation tossing/throwing and catching an object. When the music stops, students will toss and catch a spelling word from the teacher. Students continue to repeat the spelling word until the teacher stops the music and says “Switcheroo, find someone new!” Once a new partner is found, the partners can begin to catch and toss until the teacher announces the new word. When new spelling word is announced, the catching and tossing continues.

****Brain Link** – Learning through the kinesthetic modality anchors learning as the brain recalls information under positive pressure. This is the brain practicing taking a test.

****Academic Link** – Spelling and Cooperation

****PE Concept** – Hand/eye Coordination, Catching, Toss/Throwing Skills, Locomotor Movements, Cardiovascular Endurance.

Compass Locomotors -- (Music and direction cards) Have the students move in general space with a partner. The partner behind will call out a direction (north, south, east or west). The partner in front will travel in that direction while their partner continues to take them around the room (follow the leader). If the leader comes to an end boundary line, he/she must march in place until the partner behind gives them a new direction. Partners can add different locomotors. Switch roles (Ex: skip North, gallop south).

****Brain Link** = Cooperation is natural to the social brain. The brain is a meaning maker. Real life experiences engage more of the senses for better retention. Practicing motor skills lays the foundation for all learning. Hopping stimulates the vestibular system.

****Integration** = Learning Directions and Left and Right, Orienteering, Directionality, Spatial Awareness

****PE Concept** = Locomotor Movements and Cardiovascular Endurance, Spatial Awareness

Wright Family – (Ball, bean bag or wadded up piece of paper, the Wright Family Story) Adaptation from Summerford, 2009, pp. 99-100). The group stand in a circle, shoulder to shoulder, with a ball. The Wright Family Story is read. Every time the word “right” is heard, the group passes their ball one person to the right. Every time the word “left” is heard, the group passes their ball one person to the left. When either left or right is read, the whole group should perform a movement (jump, hop, stretches etc.) See who ends up with the ball at the end of the story.

****Brain Link** – Jumping is one of the three basic human movements. Jumping increases vestibular fitness that prepares the brain for reading. The brain is attracted to novelty.

****Academic Link** – Language Arts, Communication, Listening Skills

****PE Concept** – Basic Movement Concepts, Locomotor Movements, Hand-eye coordination

Global Awareness – Each student will identify parts of the globe using the location of specific body parts. Once the seven continents are identified, students can sing their names and show the location to the tune of “Are You Sleeping?” North America = left hand, Europe = touch nose, Asia = right hand, Africa = waist (equator), South America = left knee, Australia = right knee, Antarctica = feet.

****Brain Link** = Body mind mapping engages the senses and memory pathways for better retention of memory.

****Integration** = Learning the Continents, Left and Right

****PE Concept** = Body Awareness, Basic Movement Concepts

“It’s easier to build a child than to repair an adult.”

Author Unknown

Brain Research Resources

Blaydes Madigan, J. *Action Based Learning: How to Make Learning a Moving Experience*

jblydesPE@aol.com www.actionbasedlearning.com

This book has lots of activities that include movement and classroom activities. Jean does a great job explaining how important exercise is with building the brain cells.

Summerford, C. *Action-Packed Classrooms, K-5: Using Movement to Educate and Invigorate Learners*

760-961-1727 Cathie@fit4learning.com www.fit4learning.com

Cathie is a former PE teacher and classroom teacher. Her books gives you information about brain research and lots of ideas of how to get children up and moving in the classroom.

Jensen, E. *Enriching The Brain: How to Maximize Every Learner’s Potential*

www.jensenlearning.com --

Eric Jensen is the leading expert in the translation of brain research into education. His new book is a MUST read book for all teachers!

Ratey, J. J. *Spark: The Revolutionary New Science of Exercise and the Brain*

<http://www.johnratey.com/newsite/index.html>

A must read book for everyone wants to learn more about moving benefits the brain!

Evanski, J., *Classroom Activators: 64 Novel Ways to Energize Learners*

www.thebrainstore.com

This book gives you access to specific state-changing activities and the brain research behind them.

Smith, L. “*Relevant Elementary Physical Education*” -- Drake University – 2009

This 3 credit graduate course will help teachers understand why physical education is important in our schools. This course will help PE teachers improve their own instruction and teach them how to integrate classroom content without jeopardizing time out of their own curriculum! This is a Win-Win for teachers and students!

Music Selections

Greg and Steve – Youngheart@creativeteaching.com 800-444-4287

Sesame Street – Hot! Hot! Hot! Dance Songs – www.sony.com

Jim Gill Music, Inc – Jimgillmusic@mac.com 708-763-9864

Silly Sally – www.sillysallythec clown.com

Coach JJ – 1-866-543-7364 Spring into Action Vol.1 & 2

Ron Hiller – 1-877-465-7010 www.ronnosong.com

The Learning Station – 1-800-789-9990

Kimbo Educational 1-800-631-2187 – Many music learning selections for all ages!

Info@sara-jordan.com 1-800-567-7733 (Integration Music)

www.singsongs.com (songs about science)

Get Moving Through Those Workstations!

Charlene Schueler

Every child loves to move around. Why not move around and learn at the same time? I use Guided Reading in my classroom. During the time that I meet with my reading groups I have workstations going on. I believe that children should not be sitting at their desks doing worksheets during this whole time period. There are many activities that can be used to help anchor learning during the workstation time. Movement can be very controlled...set your expectations, children love to please! Below you will read about some of my favorite activities to have during workstations. Enjoy!

TWISTER--This is using the ever familiar Twister game, but with a little “vowel twist” to it. On the game board program your colored dots with long and short vowels. Have word cards or even picture cards with long and short vowels to pick from. When you use the spinner you can choose a card and give them the directions, i.e; left foot, on green, long a vowel sound . The kids love it and they are moving!

READ AROUND THE ROOM-- There are so many ways that you can change up read around the room. I like to use magnifying glasses(can be real or paper made), binoculars made out of toilet paper rolls, pointer sticks, with different characters on the end. My colleague found bats to put on the end of her sticks and had students find the “at” words around the room. Students love to have something to grasp onto and that is what makes read around the room fun for them. I do set my expectations. If they are acting in the wrong way with the reading tool, they get to use their finger to read around the room instead. The next time that center comes up they truly want to use the tool!☺ Students love using clipboards with a programmed laminated chart of word families, vowel sounds, blends, etc . It is a fun way to walk around and write with vis-a vis markers.

Going on Vacation--I love using read around the room as a workstation for movement. To add a little change to the standard reading with a pointer stick, use little briefcases with pocket holders to go around and find words to pack. I have the pockets in the suitcases programmed with word families and have baggies around the room that the students have to go and find words that would match, packing their suitcases. At the end of their packing they are to go through a little security check with their buddies and have their buddies check their luggage. Shared responsibility of staying on task. You can also program this game with short and long vowels, blends, etc.

Drama Center-- Children love puppets. Provide short little plays with all different kinds of puppets. The puppets do not have to be expensive, paper and popsicle sticks make great retell tools. Children love to get into character and this is a great way to anchor learning. Those

students that might be shy to get up in front of others, may truly come to life during a small drama center.

GO FISH -- One of my student's favorite activities during workstations is the easiest center to put together. I have laminated construction paper circles about 6" in diameter that I use for a little Go Fish game. One student has the "teacher" position and hides sight word cards under the circles. The others students are spelling sight words with a little cross clap game while the "teacher" hides the cards. The "teacher" then says go fishing and they have to be able to read the card and tell the "teacher" the word. After all of the cards have been found a new "teacher" is chosen and the game goes again. Children love the thrill of finding something and looking under things. Keep it simple so children can problem solve together while you are working with reading groups!

POEMS-- Though there is not much movement through this center, I do have some poems in their poem books that get them up and moving. Of course those are their favorites to do. It is also an anchor for rhythm and memory of words. The students work together to read their poems. This is great for high and low readers to help one another out. There is also a sense of accomplishment for lower readers since the poem has been done many times and they too can read and do the movements with their buddies.

Interactive Bulletin Boards-- Clothespins and yarn make for a great matching workstation. I love to use books that I have read and create an activity from it. I have students work on symmetry and odd and evens during math by creating a set of mittens. They have to be traced by a friend or themselves around their hands. After they do that they are to color them the same with patterns, etc. We laminate the mittens for hanging them up on the line. This bulletin board is one of the student's favorites. They love looking for their mittens, but they also like to find their friends. It is amazing to hear the compliments of their friends coloring and designs.

There are so many activities that you can add to your workstation times. Be CREATIVE. If you use a worksheet, but it doesn't need to go home or used as an assessment tool, laminate it and use markers that can be wiped off. Change up centers with ease. Just like I described in the Read Around the Room section. Keep it simple. Kids like success. Changing the tool, but not really the activity still adds excitement and enthusiasm for learning. Most importantly have fun. Too much stress is put on children to be "perfect" and always doing something that is assessed. These workstations are meant to anchor learning with fun activities. My past students come back and tell me that they loved the suitcases and they remembered the workstations. Not one remembers a worksheet that I gave them!

- Allen, L., (1997) Physical Activity Ideas for Action Elementary Level. (1st ed.) Champaign, IL: Human Kinetics.
- Bellanca, J., (1997) Active Learning Handbook for the Multiple Intelligences Classroom. (1st ed.) Thousand Oaks, CA: Corwin Press.
- Blaydes, Madigan J. (2000) Action Based Learning: Thinking On Your Feet
- Colvin, A.V., Egner Markos, N. J., Walker, P.J., (2000) Teaching the Nuts and Bolts of Physical Education Building Basic Movement Skills. (1st ed.) Champaign, IL: Human Kinetics.
- Cone, T. P., Werner, P., Cone, S.L., Woods, A.M., (1998) Interdisciplinary Teaching Through Physical Education. (1st ed.) Champaign, IL: Human Kinetics.
- Diamond, M., Hopson, J., (1998) Magic Trees of the Mind: How to Nurture You Child's Intelligence, Creativity and Healthy Emotions from Birth Through Adolescence. (2nd ed.) New York, NY: Plume.
- Dieden, B., (1995) Games to Keep Kids Moving! P.E. Activities to Promote Total Participation, Self –Esteem, and Fun for Grades 3-8. (1st ed.) West Nyack, NY: Parker Publishing Company.
- Erlauer, L., (2003) The Brain Compatible Classroom Using What We Know About Learning to Improve Teaching. (1st ed.) Alexandria, VA: Association for Supervision an Curriculum Development.
- Evanski, J., (2004) Classroom Activators 64 Novel ways to Energize Learners. (1st ed.) San Diego, CA: The Brain Store.
- Glover, D.R., Anderson, L.A., (2003) Character Education. (1st ed.) Champaign, IL: Human Kinetics.
- Hannaford, C., (2005) Smart Moves Why Learning is Not All in Your Head. (2nd ed.) Salt Lake City, UT: Great River Books.
- International Center for Leadership in Education (2000) Instructional Strategies How to Teach for Rigor and Relevance. Rexford, NY: International Center for Leadership in Education.
- Jensen, E., (2000) Brain-Based Learning; The New Science of Teaching & Training. (Revised Edition) San Diego, CA: The Brain Store.
- Jensen, E., (2006) Enriching the Brain. (1st ed.) San Francisco, CA: John Wiley & Sons, Inc.
- Jensen, E., (2000) Music with the Brain in Mind. (1st ed.) San Diego, CA: The Brain Store, Inc.
- Jensen, E. (2005) Teaching with the Brain in Mind. (2nd ed.) Danvers, MA: Association for Supervision and Curriculum Development.
- Jonson, K.F., (2006) 60 Strategies for Improving Reading Comprehension in Grades K-8. (1st ed.) Thousand Oaks, CA: Corwin Press.
- Kirkpatrick. B., Birnbaum, B.H., (1997) Lessons from the Heart (1st ed.) Champaign, IL: Human Kinetics.
- Kogut, S. P., (2003) Beyond Activities Learning Experiences to Support the National Physical Education Standards Elementary. (1st ed.) Reston, VA: National Association for Sport and Physical Education.
- Lawlis, F., (2006) The IQ Answer Maximizing Your Child's Potential. (1st ed.) New York, NY: Viking.
- Mehrhof, J., Parris, P., (2002) and the Beat goes on Rhythmic Activities for K-8. (1st ed.) Emporia KS: Mirror Publishing Company.
- Mehrhof, J., Ermler., (2000) Two Left Feet and a Beat for Grades K-8. (1st ed.) Emporia, KS: Mirror Publishing Company.
- Mohnsen, B., (2003) Concepts and Principles of Physical Education What Every Student Needs to Know. (2nd ed.) Reston, VA: National Association for Sport and Physical Education.
- Pangrazi, R.P., (2004) Dynamic Physical Education for Elementary School Children. (14th ed.) San Francisco, CA: Pearson Education Inc.
- Pangrazi, R.P., Beighle, A., Sidman, C.L., (2003) Pedometer Power. (1st ed.) Champaign, IL: Human Kinetics.
- Pica, R., (1999) Moving & Learning Across the Curriculum. (1st ed.) Albany, NY: Delmar Publishers.
- Ratey, J. J., Hagerman, E., (2008) Spark: The Revolutionary New Science of Exercise and the Brain. (1st ed.) New York, NY: Little, Brown and Company.
- Richards, R.G., (2001) L.E.A.R.N. Playful Strategies for All Students. (2nd ed.) Riverside, CA: RET Center Press.
- Sappington, N., (2005) ESRI Map Book Volume 20. Redlands, CA: ESRI
- Senne, T.A., (2004) On Your Mark...Get Set...Go!. (1st ed.) Reston, VA: National Association for Sport and Physical Education.
- Sousa, D.A., (2005) How the Brain Learns to Read. (1st ed.) Thousand Oaks, CA: Corwin Press.
- Sousa, D.A., (2001) How the Special Needs Brain Learns. (1st ed.) Thousand Oaks, CA: Corwin Press.
- Sousa, D.A., (2003) How the Gifted Brain Learns. (1st ed.) Thousand Oaks, CA: Corwin Press.
- Sousa, D.A., (2006) How the Brain Learns. (3rd ed.) Thousand Oaks, CA: Corwin Press.
- Summerford, C. (2005) Action-Packed Classrooms. (1st ed.) San Diego, CA: The Brain Store, Inc.
- Summerford, C. (2009), *Action-packed classrooms K-5: Using movement to educate and invigorate learners.* (2nd ed.) [Thousand Oaks, CA: Corwin Press.](#)

Summerford, C., (2000) PE-4-Me Teaching Lifelong Health and Fitness. (1st ed.) Champaign, IL: Human Kinetics.

Thompson, J., Hazel. N., (1998) Making a Difference in Physical Education 100% Success and 100% Participation. (1st ed.) Louisville, KY: UNEEDPE.

Umstatter, J., (1992) Brain Games! Ready-to-Use Activities That Make Thinking Fun for Grades 6-12. (1st ed.) New York, NY: Scholastic.

West, S., Cox, S., (2004) Literacy Play over 300 Dramatic Play Activities That Teach Pre-Reading Skills. (1st ed.) Beltsville, MD: Gryphon House, Inc.

Willis, J., (2006) Research-Based Strategies to Ignite Student Learning. (1st ed.) Alexandria, VA: Association for Supervision and Curriculum Development.

Wolfe, P., Nevills, P., (2004) Building the Reading Brain. (1st ed.) Thousand Oaks, CA: Corwin Press.

Websites

<http://www.bal-a-vis-x.com/>

<http://www.braingym.com/>

<http://staff.4j.lane.edu/~terhune/KenDreamJim/brainresearch50.html>

http://www.brainconnection.com/content/13_1

<http://www.choosykids.com/mt/> Linda Carson – West Virginia U – I know her – I have talked to her several times – you could email her for advice

<http://www.fit4learning.com/index.html> Cathie Sommerford - this is the person that Paul received sample DVD – I also know her very well

<http://www.actionbasedlearning.com/> Jean Blaydes Madigan – maybe your best resource – click on her Learning Lab

<http://www.geocities.com/Heartland/Plains/6097/brain.html>

<http://www.take10.net/whatistake10.asp?page=new> this is a canned program – giving ideas to elementary class room teachers on how to give 10 minute brain breaks

<http://www.fi.edu/learn/brain/exercise.html>

<http://www.generation-fit.com/> Judy Shasek is also a friend of mine – if you need more guitar heroes for future plans for Learning Readiness PE, let me know

<http://www.xavix.com/> not a brain research site – but a new company – I know the president – tools we might be able to use to motivate student movement (lab equipment)

<http://exerlearning.blogspot.com/>

<http://www.wittfitt.com/benefits.htm> - a tool we already have at Madison – someone might want to expand this program