

DIVING DEEPER

MESA NATIONAL CONFERENCE 12TH & 13TH APRIL 2002

More than Words

Jody Plecas

As time passes I recognise the rhythm and flow of the world. Much of my understanding of it goes beyond words.

We learn in a variety of ways, visually, auditory and tactile (or kinesthetically). These ways of learning are activated through explicit or cognitive learning like lectures, textbooks, discussions and research. However we also learn implicitly through physical and experiential means. 40% of an adults learning intake is through visual means, 30% is auditory and 30% is kinesthetic. We must include each of these areas to address both explicit and implicit learning.

The audience of the Diving Deeper conference was given a simple test handout (Attachment 1) to determine what perspective the audience had. In summary the group showed 22 were more visual, 20 were more kinesthetic and only 4 results showed a bent toward auditory intake. (Attachment 2 is a collation of the test)

Clues	Learning Tips
<p>Visual Learners Usually:</p> <ul style="list-style-type: none">• Need to see it to know it.• Have strong sense of color.• May have artistic ability.• Often have difficulty with spoken directions.• May Over-react to sounds.• May have trouble following lectures.• Often misinterprets words. <p>Auditory Learners Usually:</p> <ul style="list-style-type: none">• Prefer to get information by listening-needs to hear it to know it.• May have difficulty following written directions.• Difficulty with reading.• Problems with writing.• Inability to read body language and facial expressions. <p>Kinesthetic Learners Usually:</p> <ul style="list-style-type: none">• Prefer hands-on learning.• Often can assemble parts without reading directions.• Have difficulty sitting still.• Learn better when physical activity is involved.• May be very well coordinated and have athletic ability.	<p>Visual Learners Should:</p> <ul style="list-style-type: none">• Use graphics to reinforce learning; films, slides, illustrations, diagrams and doodles.• Color code to organize notes and possessions.• Ask for written directions.• Use flow charts and diagrams for notetaking.• Visualize spelling of words or facts to be memorized. <p>Auditory Learner Should:</p> <ul style="list-style-type: none">• Use of tapes for reading and for class and lecture notes.• Learning by interviewing or by participating in discussions.• Having test questions or directions read aloud or put on tape. <p>Kinesthetic Learners Should:</p> <ul style="list-style-type: none">• Engage in experiential learning (making models, doing lab work, and role playing).• Take frequent breaks in study periods.• Trace letters and words to learn spelling and remember facts.• Use computer to reinforce learning through sense of touch.• Memorize or drill while walking or exercising.• Express abilities through dance, drama or gymnastics.

(Used with permission of Diane Von Hardenberg, Modality Preference Inventory, Middlesex Community College <http://www.mxctc.commnet.edu/clc/survey.htm>)

Publications which will be of assistance to teachers are 'Learning with the Body in Mind' by Eric Jensen (who is currently speaking in Adelaide) and the 'AB Sea' by Nancy Tsernjavski.

Eric says "when we move, we groove" and his book explains why kinesthetic approaches are vital to good teaching. He further explains that "body centered learning is the acquisition of knowledge that takes place primarily outside of conscious awareness" and that "thoughts are merely movements that haven't happened yet".

DIVING DEEPER

MESA NATIONAL CONFERENCE 12TH & 13TH APRIL 2002

Nancy's "AB Sea" book helps to illustrate the diversity of educational opportunities that can employ multiple intelligences in marine education and is highly recommended.

The conference delegates are challenged to examine their teaching spaces . Three activities/enactments to trial could be having the students /audience creating a storm soundscape, then exemplifying water movement while becoming a catchment (and taking pollution down to the sea), and finally a seagrass meadow.

Finally, the delegates are encouraged to also make use of the Arts (and Arts specialists) as a wonderful way to consolidate cognitive learning and to make sense of the sea.

Information intake styles.....

At the end of each numbered section mark the letter that best describes your learning 'comfort zone'

- | | | |
|-----------|--|--------------------------|
| 1 | a) My papers and notebooks always seem messy. | <input type="checkbox"/> |
| | b) I start a project before reading the directions | <input type="checkbox"/> |
| | c) I remember information better if I write it down. | <input type="checkbox"/> |
| 2 | | |
| | a) When I read, I need to use my index finger to track my place on the line | <input type="checkbox"/> |
| | b) I hate to sit at a desk for long periods of time | <input type="checkbox"/> |
| | c) Looking at the person teaching helps keep me focused. | <input type="checkbox"/> |
| 3 | | |
| | a) I do not follow written directions well | <input type="checkbox"/> |
| | b) I prefer first to see something done and then to do it myself | <input type="checkbox"/> |
| | c) I need a quiet place to get my work done | <input type="checkbox"/> |
| 4 | | |
| | a) If I hear something, I will remember it. | <input type="checkbox"/> |
| | b) I use the trial and error approach to problem-solving | <input type="checkbox"/> |
| | c) When I take a test, I can see the textbook page in my head | <input type="checkbox"/> |
| 5 | | |
| | a) Writing has always been difficult for me | <input type="checkbox"/> |
| | b) I like to read my textbook while riding an exercise bike | <input type="checkbox"/> |
| | c) I need to write down directions, not just take them verbally | <input type="checkbox"/> |
| 6 | | |
| | a) I often misread words from the text-(i.e., "them" for "then") | <input type="checkbox"/> |
| | b) I take frequent study breaks | <input type="checkbox"/> |
| | c) Music or background noise distracts my attention from the task at hand. | <input type="checkbox"/> |
| 7 | | |
| | a) I would rather listen and learn than read and learn | <input type="checkbox"/> |
| | b) I have a difficult time giving step-by-step instructions | <input type="checkbox"/> |
| | c) I don't always get the meaning of a joke | <input type="checkbox"/> |
| 8 | | |
| | a) I'm not very good at interpreting an individual's body language. | <input type="checkbox"/> |
| | b) I enjoy sports and so well at several different types of sports | <input type="checkbox"/> |
| | c) I doodle and draw pictures on the margins of my notebook pages | <input type="checkbox"/> |
| 9 | | |
| | a) Pages with small print or poor quality copies are difficult for me to read | <input type="checkbox"/> |
| | b) I use my hands when describing things | <input type="checkbox"/> |
| | c) I have trouble following lectures | <input type="checkbox"/> |
| 10 | | |
| | a) My eyes tire quickly, even though my vision check-up is always fine | <input type="checkbox"/> |
| | b) I have to rewrite or type my class notes to reinforce the material | <input type="checkbox"/> |
| | c) I react very strongly to colours | <input type="checkbox"/> |

a = auditory b = kinesthetic (tactile) c = visual

Learning Styles <http://www.mxctc.commnet.edu/clc/survey.htm>

Either print this page and take the inventory or keep track of your score. Read each statement and select the appropriate number response as it applies to you.

Often (3)	Sometimes (2)	Seldom/Never (1)
-----------	---------------	------------------

Visual Modality

- _____ I remember information better if I write it down.
- _____ Looking at the person helps keep me focused.
- _____ I need a quiet place to get my work done.
- _____ When I take a test, I can see the textbook page in my head.
- _____ I need to write down directions, not just take them verbally.
- _____ Music or background noise distracts my attention from the task at hand.
- _____ I don't always get the meaning of a joke.
- _____ I doodle and draw pictures on the margins of my notebook pages.
- _____ I have trouble following lectures.
- _____ I react very strongly to colors.
- _____ **Total**

Auditory Modality

- _____ My papers and notebooks always seem messy.
- _____ When I read, I need to use my index finger to track my place on the line.
- _____ I do not follow written directions well.
- _____ If I hear something, I will remember it.
- _____ Writing has always been difficult for me.
- _____ I often misread words from the text-(i.e., "them" for "then").
- _____ I would rather listen and learn than read and learn.
- _____ I'm not very good at interpreting an individual's body language.
- _____ Pages with small print or poor quality copies are difficult for me to read.
- _____ My eyes tire quickly, even though my vision check-up is always fine.
- _____ **Total**

Kinesthetic/Tactile Modality

- _____ I start a project before reading the directions.
- _____ I hate to sit at a desk for long periods of time.
- _____ I prefer first to see something done and then to do it myself.
- _____ I use the trial and error approach to problem-solving.
- _____ I like to read my textbook while riding an exercise bike.
- _____ I take frequent study breaks.
- _____ I have a difficult time giving step-by-step instructions.
- _____ I enjoy sports and so well at several different types of sports.
- _____ I use my hands when describing things.
- _____ I have to rewrite or type my class notes to reinforce the material.
- _____ **Total**

Total the score for each section. A score of 21 points or more in a modality indicates a strength in that area. The highest of the 3 scores indicates the most efficient method of information intake. The second highest score indicates the modality which boosts the primary strength. For example, a score of 23 in the visual modality indicates a strong visual learner. Such a learner benefits from the text, from filmstrips, charts, graphs, etc. If the second highest score is auditory, then the individual would benefit from audio tapes, lectures, etc. If you are strong kinesthetically, then taking notes and rewriting class notes will reinforce information.

Learning Styles—Clues and Learning Tips

Clues	Learning Tips
Visual Learners Usually: <ul style="list-style-type: none">• Need to see it to know it.• Have strong sense of color.• May have artistic ability.• Often have difficulty with spoken directions.• May Over-react to sounds.• May have trouble following lectures.• Often misinterprets words.	Visual Learners Should: <ul style="list-style-type: none">• Use graphics to reinforce learning; films, slides, illustrations, diagrams and doodles.• Color code to organize notes and possessions.• Ask for written directions.• Use flow charts and diagrams for notetaking.• Visualize spelling of words or facts to be memorized.
Auditory Learners Usually: <ul style="list-style-type: none">• Prefer to get information by listening-needs to hear it to know it.• May have difficulty following written directions.• Difficulty with reading.• Problems with writing.• Inability to read body language and facial expressions.	Auditory Learner Should: <ul style="list-style-type: none">• Use of tapes for reading and for class and lecture notes.• Learning by interviewing or by participating in discussions.• Having test questions or directions read aloud or put on tape.
Kinesthetic Learners Usually: <ul style="list-style-type: none">• Prefer hands-on learning.• Often can assemble parts without reading directions.• Have difficulty sitting still.• Learn better when physical activity is involved.• May be very well coordinated and have athletic ability.	Kinesthetic Learners Should: <ul style="list-style-type: none">• Engage in experiential learning (making models, doing lab work, and role playing).• Take frequent breaks in study periods.• Trace letters and words to learn spelling and remember facts.• Use computer to reinforce learning through sense of touch.• Memorize or drill while walking or exercising.• Express abilities through dance, drama or gymnastics.

Adapted from the Tutor Trainer's Manual, Tyler Junior College, Tyler, TX.

Learning Styles

How do you take in information? Does your learning style match the teaching style of your instructor? This workshop gives insight into the ways in which individuals learn and how they can use their strengths to maximize information gathering

Learning Styles–Differences

People learn in different ways. There are a number of factors in combination that affect the way in which an individual learns new information. Major factors contributing to your learning style include:

- **Sensory Modalities–visual, auditory, and kinesthetic**
- **Reasoning Types–deductive, inductive**
- **Learning Environment–interpersonal (working with others), intrapersonal (working alone)**

The Senses

- **Auditory–Listening**
 - prefer verbal instructions to written ones
 - is comfortable using spoken reinforcement mentally as well as aloud
- **Visual–Seeing, Reading, Visualizing**
 - does well with reading comprehension
 - prefers maps to verbal directions
- **Kinesthetics–Moving, Touching, Writing**
 - writing things down clarifies thoughts
 - likes to draw pictures
 - enjoys working with hands–likes lab classes

Reasoning Type

- **Deductive reasoning**
 - studies premise first, then draws conclusions
 - sees big picture first, then looks for details
- **Inductive reasoning**
 - likes to see examples first when learning new information before developing an overview
 - prefers to learn game rules as it is played, not beforehand

Learning Environment

- **Intrapersonal–working alone**
 - likes to solve problems by oneself
 - does not like to work or study in groups
- **Interpersonal–working with others**
 - prefers discussion with family and friends before decision is made
 - likes to do assignments and study with others

Middlesex Community College
100 Training Hill Rd
Middletown
CT 06457
USA

REFERENCES

Books and Articles that may be of interest as listed on

New Horizons for Learning - A Multiple Intelligences Bookshelf

- Armstrong, Thomas. **In Their Own Way**. Los Angeles: CA. J.P.Tarcher, Inc., 1987.
- Armstrong, Thomas. **Awakening Your Child's Natural Genius**. Los Angeles: CA. J. P. Tarcher, Inc., 1991.
- Armstrong, Thomas. **7 Kinds of Smart: Identifying and Developing Your Many Intelligences**. NY: Plume (The Penguin Group), 1993.
- Barkman, Robert. **Patterns and the Eighth Intelligence** from **Mindshift Connection**, Zephyr Press, Spring, 1997.
- Campbell, Bruce. **Multiplying Intelligence in the Classroom**. *On the Beam*, Vol IX, No.2, Winter 1989, 7. (Article is available at this website.)
- Campbell, Bruce. **The Multiple Intelligences Handbook: Lesson Plans and More**. ISBN 0-96420-37-0-7. 1995.
- Campbell, Bruce. **The Research Results of a Multiple Intelligences Classroom**. *On the Beam*, Vol XI, No.1, Fall, 1990, 7. (Article is available at this website.)
- Campbell, Linda, Campbell, Bruce, and Dickinson, Dee. **Teaching and Learning Through Multiple Intelligences**. NY: Allyn & Bacon. 1998 (2nd edition)
- Comer, James. **School Power: Implications of an intervention project**. NY: Free Press. 1980.
- Costa, Arthur, Bellanca, James and Fogarty, Robin, editors. **If Minds Matter: A Foreword to the Future**. Palatine, IL: Skylight Publishing, 1992.
- Dickinson, Dee. **Learning Through Many Kinds of Intelligence** 1994.
- Durie, Ronnie. **An Interview With Howard Gardner** from **Mindshift Connection**, Zephyr Press, Spring, 1997.
- Ellison, Launa. **Seeing With Magic Glasses: A Teacher's View from the Front Line of the Learning Revolution**. Arlington, VA: Great Ocean Publishers, 1993.
- Ellison, Launa. **Using Multiple Intelligences to Set Goals**. *Educational Leadership*, October, 1992, 69- 72.
- Enloe, W., and Simon, K. (Eds.). **Linking Through Diversity: Practical Classroom Methods for Experiencing and Understanding Our Cultures**. 1993.
- Fogarty, R., Perkins, D., and Barel, J. **How to Teach for Transfer**. Palatine, IL: Skylight Press, 1992.
- Gardner, Howard. **Intelligence in Seven Steps**. From: **Creating the Future: Perspectives on Educational Change**. Dee Dickinson, Ed. Aston Clinton, Bucks, UK: Accelerated Learning Systems. 1991.(at this website).
- Gardner, Howard, Mindy L. Kornhaber, Warren K. Wake. **Intelligence: Multiple Perspectives**. NY: Harcourt, Brace. 1996.
- Gardner, Howard. **Art Education and Human Development**. Los Angeles: The Getty Center for Education in the Arts, 1990.
- Gardner, Howard. **Art, Mind and Brain**. NY.: Basic Books, 1982.
- Gardner, H. and Perkins, D. (Eds.). **Art, Mind, and Education**. Urbana: University of Illinois Press. The Spring, 1988 issue of *Journal of Aesthetic Education* , devoted to the work of Project Zero, published in book form, 1987.

- Gardner, H. **The Arts and Human Development**. NY: Wiley, 1973.
- Gardner, H. **Artful Scribbles: The Significance of Children's Drawings**. NY: Basic Books, 1980.
- Gardner, H. **Creating Minds: An Anatomy of Creativity as Seen Through the Lives of Freud, Einstein, Picasso, Stravinsky, Eliot, Graham, and Gandhi**. NY: Basic Books, 1993.
- Gardner, Howard. **Frames of Mind: The Theory of Multiple Intelligences (10th Anniversary Edition)**. NY: Basic Books, 1993.
- Gardner, Howard. **The Mind's New Science**. NY: Basic Books, 1985.
- Gardner, Howard. **Multiple Intelligences: The Theory in Practice**. NY: Basic Books, 1992.
- Gardner, Howard. **To Open Minds.: Chinese Clues to the Dilemma of Contemporary Education**. NY: Basic Books, 1989.
- Gardner, Howard. **The Unschooled Mind: How Children Think and How Schools Should Teach**. NY: Basic Books, 1991.
- Gardner, Howard, and Thomas Hatch. **Multiple Intelligences Go To School: Educational Implications of the Theory of Multiple Intelligences**. *Educational Researcher* 18,8 (November, 1989): 4-9. EJ 369 605. (Note: This version of the article is found at [Center for Children and Technology](#). Look for an extensive bibliography at the end of the article.)
- Gardner, Howard, and Tina Blythe. ***A School for All Intelligences***. *Educational Leadership* April, 1990, 33-37.
- Veenema, Shirley and Gardner, Howard. **"Multimedia and Multiple Intelligences,"** *The American Prospect* no. 29 (November-December 1996): 69-75
- Gardner, Howard. ***Zero-Based Arts Education***. *Studies in Art Education* , 30: 71-83. (1989)
- Goodman, N. **Languages of Art: An Approach to a Theory of Symbols**. NY: Bobbs-Merrill.(2nd ed.). Indianapolis,IN: Hackett, 1976.
- Hoerr, Thomas R. **The Naturalist Intelligence** from **Mindshift Connection**, [Zephyr Press](#), Spring, 1997.
- Hoerr, Thomas R. ***How Our School Applied Multiple Intelligences Theory***. *Educational Leadership* , October, 1992, 67-768.
- Kurtzner, Joel. **An Interview with Howard Gardner**. *Strategy & Business*. Booz, Allen & Hamilton. URL: <http://www.strategy-business.com/thoughtleaders/99109/>. First Quarter, 1999.
- Lipson, A. and Perkins, D. Block: **Getting Out of Your Own Way-- The New Psychology of Counterintentional Behavior in Everyday Life**. NY: Lyle Stuart Press, 1990.
- Margulies, N. **Mapping Inner Space: Learning and Teaching Mind Mapping**. 1993.
- McAuliffe, J., and Stoskin, L. **What Color is Saturday?: Using Analogies to Enhance Creative Thinking in the Classroom**. 1993.
- Nickerson, R, Perkins, D., and Smith, E. **The Teaching of Thinking**. Hillsdale, NJ: Lawrence Erlbaum Assoc., 1986.
- Oddleifson, Eric. **A Fifty School Arts Education Demonstration Project**. Boston, MA: Center for the Arts in Basic Curriculum, Fall, 1989. (Article is available at this website.)
- Perkins, D. **Knowledge as Design**. Hillsdale, NJ: Lawrence Erlbaum Assoc., 1986.
- Perkins, D. **The Mind's Best Work**. Cambridge, MA: Harvard Univ. Press, 1981.
- Perkins, D. **Mindware: The New Science of Learnable Intelligence**. NY: Free Press, (in press.)
- Perkins, D. and Lipson, A. **Proactivity**. NY: Oxford University Press, (in press.)

- Perkins, D. **Smart Schools: From Training Memories to Educating Minds.** NY: Free Press, 1992.
- Perkins, D., Wiske, M., Schwartz, J., and West, M. (Eds.). **Teaching for Understanding with Technology: Cognition, computers, and school context.** NY: Oxford University Press, in press.
- Rico, Gabriele Lusser. **Writing the Natural Way.** Los Angeles, CA: Jeremy P. Tarcher, Inc., 1983.
- Sizer, Theodore. **Horace's Compromise: The Dilemma of the American High School.** NY: Houghton Mifflin, 1984.
- Sizer, Theodore. **Horace's School: Redesigning the American High School.** NY: Houghton Mifflin, 1992.
- Smagorinsky, Peter. **Expressions: Multiple Intelligences in The English Class.** Urbana, IL: National Council of Teachers of English. 1991
- Swartz, B. and Perkins, D. **Teaching Thinking: Issues and Approaches.** Pacific Grove, CA: Midwest Publishers, 1989.
- Unger, Chris. **Teaching for Understanding -- Questions to ask yourself and your students**
- Veenema, Shirley and Gardner, Howard. "**Multimedia and Multiple Intelligences,**" *The American Prospect* no. 29 (November-December 1996): 69-75
- Voss, J., Perkins, D., and Segal, J.W. (Eds.). **Informal Reasoning and Education.** Hillsdale, NJ: Lawrence Erlbaum Assoc., 1991.
- Wahl, Mark. **Multiple Intelligences Power Up Math Teaching.**
- Wahl, Mark. **Math for Humans: Teaching Math Through 8 Intelligences.** Langley, WA: LivnLern Press. 1999. Read a [review of this book](#).
- Wahl, Mark. **A Mathematical Mystery Tour: Higher Thinking Math Tasks,** [Zephyr Press](#). 1988.
- Weber, Ellen. **Creative Learning From Inside Out: A collaborative learning and teaching approach for high school.** Vancouver, BC: EduServ Education Library. 1996. See a [Review](#) of the book at this website. US Distributor is [Zephyr Press](#) in Tucson, AZ.
- Weber, Ellen. **Curriculum for Success** On the Beam. 1992. (Available at this website.)
- Weber, R. and Perkins, D.(Eds.). **The Inventive Mind: Creativity in Technology.** NY: Oxford University Press, 1992.
- Wiggins, Grant. **A True Test: Toward a More Authentic and Equitable Assessment.** *Phi Delta Kappan*, May, 1989, 703-712.
- Winner, E. **Invented Worlds: A Psychology of the Arts.** Cambridge, MA: Harvard University Press, 1982.
- Winner, E. **The Point of Words: Children's Understanding of Metaphor and Irony.** Cambridge, MA: Harvard University Press, 1988.
- **Music and the Mind** by Dee Dickinson, New Horizons for Learning (1993) Seattle, Washington

Internet Sites

- **New Horizons for Learning -A Multiple Intelligences Bookshelf**
<http://www.newhorizons.org>
 - **An excellent site about the brain**
<http://www.hhmi.org/senses/a/a110.htm>
 - **Middlesex Community College** <http://www.mxctc.commnet.edu/clc/survey.htm>
 - **L.S. ideas for 1st grade by Afton Diemart** <http://www.northrim.net/afton/>
-

Conferences - Workshops

AUGUST 2002

Eric Jensen Teaching with the Brain in Mind – Adelaide

Two workshops

The workshop sessions will focus on brain-compatible learning, linking latest research in neuroscience with specific, practical, classroom-ready applications

Dates: Friday 16th/Saturday 17th or Sunday 18th/Monday 19th

Times: 8:30am – 4pm each day

Price: \$175 includes 2-Day program, workfolder, refreshments, certificate of attendance.

Venue: Lakes Resort Hotel, Brebner Drive, West Lakes, South Australia

Booking: Focus Education,

PO Box 402

Flagstaff Hill

South Australia 5159

Phone or fax: 08 8358 6993

Email: john.joseph@focusededucation.com.au

Eric Jensen is a member of the prestigious Society for Neuroscience and New York Academy of Science. He's a popular speaker at most major conferences, including ASTD, ASCD, NYRE, NAESP, SEAL, SALT, and IAL. He was named to Who's Who of the World and voted an Outstanding Young Man of America. He was the designer and key trainer for the MetWest Initiative (Australia)--one of the world's largest learning and training programs.

Jensen authored Student Success Secrets, (Barron's) The Little Book of Big Motivation, (Ballantine/Fawcett) The Learning Brain, SuperTeaching, Brain-Based Learning, Music with the Brain in Mind, Learning with the Brain in Mind, Different Brains, Different Learners, Brain Compatible Strategies, The Great Memory Book (The Brain Store) and Teaching with the Brain in Mind ('98) ASCD.

Deep Diving is any dive deeper than 20 meters (60 feet). However there are different kinds of diving which gives deep diving its own specific definition. In Recreational diving, the maximum depth limit is 40 meters (130 feet). In technical diving, a dive deeper than 60 meters (200 feet) is described as a deep dive. However, as defined by most recreational diving agencies, a deep dive allows you to descend to 18 meters and beyond. Decending to the Wreck â€“ Credit: Jon Milnes. Risks in Deep Diving. â€˜Diving Deepâ€™™ Trailer: Santa Barbara Film Festival Opener About Filmmaker-Adventurer Mike DeGruy 30 January 2019 | Deadline. See all related articles Â».

Around The Web.