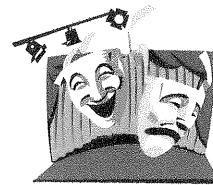


Nine Is Fine!!

*A Fun Way Of Looking At Gardner's Theory
Of Multiple Intelligences*



Presented By:

*Kathy Hunt Ullock
90 Sin Salida
Sedona, Arizona 86351*

Kathunt51@hotmail.com

IT'S NOT HOW SMART YOU ARE - IT'S *HOW* YOU ARE SMART!

Howard Gardner's Theory of Multiple Intelligences

What parent can not see gleaming rays of genius in their child? And yet, how many children come to school and demonstrate their own unique genius? There was a time when it might have been a joke to suggest "Every parent thinks their kid's a genius." But research on human intelligence is suggesting that the joke may be on educators! There is a constant flow of new information on how the human brain operates, how it differs in function between genders, how emotions impact on intellectual acuity, even on how genetics and environment each impact our children's cognitive abilities. While each area of study has its merits, Howard Gardner of Harvard University has identified different **KINDS** of intelligence we possess. This has particularly strong ramifications in the classroom, because if we can identify children's different strengths among these intelligences, we can accommodate different children more successfully according to their orientation to learning.

Thus far Gardner has identified nine intelligences. He speculates that there may be many more yet to be identified. Time will tell. These are the paths to children's learning teachers can address in their classrooms right now. They are:

- **VISUAL/SPATIAL** - children who learn best visually and organizing things spatially. They like to see what you are talking about in order to understand. They enjoy charts, graphs, maps, tables, illustrations, art, puzzles, costumes - anything eye catching.
- **VERBAL/LINGUISTIC** - children who demonstrate strength in the language arts: speaking, writing, reading, listening. These students have always been successful in traditional classrooms because their intelligence lends itself to traditional teaching.
- **MATHEMATICAL/LOGICAL** - children who display an aptitude for numbers, reasoning and problem solving. This is the other half of the children who typically do well in traditional classrooms where teaching is logically sequenced and students are asked to conform.

- **BODILY/KINESTHETIC** - children who experience learning best through activity: games, movement, hands-on tasks, building. These children were often labelled "overly active" in traditional classrooms where they were told to sit and be still!
- **MUSICAL/RHYTHMIC** - children who learn well through songs, patterns, rhythms, instruments and musical expression. It is easy to overlook children with this intelligence in traditional education.
- **INTRAPERSONAL** - children who are especially in touch with their own feelings, values and ideas. They may tend to be more reserved, but they are actually quite intuitive about what they learn and how it relates to themselves.
- **INTERPERSONAL** - children who are noticeably people oriented and outgoing, and do their learning cooperatively in groups or with a partner. These children may have typically been identified as "talkative" or "too concerned about being social" in a traditional setting.
- **NATURALIST** - children who love the outdoors, animals, field trips. More than this, though, these students love to pick up on subtle differences in meanings. The traditional classroom has not been accomodating to these children.
- **EXISTENTIALIST** - children who learn in the context of where humankind stands in the "big picture" of existence. They ask "Why are we here?" and "What is our role in the world?" This intelligence is seen in the discipline of philosophy.

Teachers are now working on assimilating this knowledge into their strategies for helping children learn. While it is too early to tell all the ramifications for this research, it is clear that the day is past where educators teach the text book and it is the dawn of educators teaching each child according to their orientation to the world.

GARDNER'S EIGHT CRITERIA

For Identifying an Intelligence

"Intelligence is the ability to find and solve problems and create products of value in one's own culture."

-Dr. Howard Gardner

Harvard University

1. **Isolation as a Brain Function** - as medicine studies isolated brain functions through cases of brain injury and degenerative disease, we are able to identify actual physiological locations for specific brain functions. A true intelligence will have its function identified in a specific location in the human brain.
2. **Prodigies, Idiot Savantes and Exceptional Individuals** - human record of genius such as Mozart being able to perform on the piano at the age of four and Dustin Hoffman's "Rainman" character being able to calculate dates accurately down to the day of the week indicate that there are specific human abilities which can demonstrate themselves to high degrees in unique cases. Highly developed examples of a true intelligence are recorded in rare occurrences.
3. **Set of Core Operations** - there is an identifiable set of procedures and practices which are unique to each true intelligence.
4. **Developmental History with an Expert End Performance** - as clinical psychologists continue to study the developmental stages of human growth and learning, a clear pattern of developmental history is being documented of the human mind. A true intelligence has an identifiable set of stages of growth with a Mastery Level which exists as an end state in human development. We can see examples of people who have reached the Mastery level for each intelligence.
5. **Evolutionary History** - as cultural anthropologists continue to study the history of human evolution, there is adequate evidence that our species has developed intelligence over time through human experience. A true intelligence can have its development traced through the evolution of homo sapiens.
6. **Supported Psychological Tasks** - clinical psychologists can identify sets of tasks for different domains of human behavior. A true intelligence can be identified by specific tasks which can be carried out, observed and measured.
7. **Supported Psychometric Tasks** - the use of psychometric instruments to measure intelligence (such as I.Q. tests) have traditionally been used to measure only specific types of ability. However, these tests can be designed and used to identify and quantify true unique intelligences. The Multiple Intelligence theory does not reject psychometric testing for specific scientific study.
8. **Encoded into a Symbol System** - humans have developed many kinds of symbol systems over time for varied disciplines. A true intelligence has its own set of images it uses which are unique to itself and are important in completing its identified set of tasks.

Multiple Intelligences Survey

Part I

Complete each section by placing a "1" next to each statement you feel accurately describes you. If you do not identify with a statement, leave the space provided blank. Then total the column in each section.

Section 1

- I enjoy categorizing things by common traits
- Ecological issues are important to me
- Hiking and camping are enjoyable activities
- I enjoy working on a garden
- I believe preserving our National Parks is important
- Putting things in hierarchies makes sense to me
- Animals are important in my life
- My home has a recycling system in place
- I enjoy studying biology, botany and/or zoology
- I spend a great deal of time outdoors

- TOTAL for Section 1

Section 2

- I easily pick up on patterns
- I focus in on noise and sounds
- Moving to a beat is easy for me
- I've always been interested in playing an instrument
- The cadence of poetry intrigues me
- I remember things by putting them in a rhyme
- Concentration is difficult while listening to a radio or television
- I enjoy many kinds of music
- Musicals are more interesting than dramatic plays
- Remembering song lyrics is easy for me

- TOTAL for Section 2

Section 3

- I keep my things neat and orderly
- Step-by-step directions are a big help

- _____ Solving problems comes easily to me
- _____ I get easily frustrated with disorganized people
- _____ I can complete calculations quickly in my head
- _____ Puzzles requiring reasoning are fun
- _____ I can't begin an assignment until all my questions are answered
- _____ Structure helps me be successful
- _____ I find working on a computer spreadsheet or database rewarding
- _____ Things have to make sense to me or I am dissatisfied

- _____ TOTAL for Section 3

Section 4

- _____ It is important to see my role in the "big picture" of things
- _____ I enjoy discussing questions about life
- _____ Religion is important to me
- _____ I enjoy viewing art masterpieces
- _____ Relaxation and meditation exercises are rewarding
- _____ I like visiting breathtaking sites in nature
- _____ I enjoy reading ancient and modern philosophers
- _____ Learning new things is easier when I understand their value
- _____ I wonder if there are other forms of intelligent life in the universe
- _____ Studying history and ancient culture helps give me perspective

- _____ TOTAL for Section 4

Section 5

- _____ I learn best interacting with others
- _____ The more the merrier
- _____ Study groups are very productive for me
- _____ I enjoy chat rooms
- _____ Participating in politics is important
- _____ Television and radio talk shows are enjoyable
- _____ I am a "team player"
- _____ I dislike working alone
- _____ Clubs and extracurricular activities are fun
- _____ I pay attention to social issues and causes

- _____ TOTAL for Section 5

Section 6

- _____ I enjoy making things with my hands

- _____ Sitting still for long periods of time is difficult for me
- _____ I enjoy outdoor games and sports
- _____ I value non-verbal communication such as sign language
- _____ A fit body is important for a fit mind
- _____ Arts and crafts are enjoyable pastimes
- _____ Expression through dance is beautiful
- _____ I like working with tools
- _____ I live an active lifestyle
- _____ I learn by doing

_____ TOTAL for Section 6

Section 7

- _____ I enjoy reading all kinds of materials
- _____ Taking notes helps me remember and understand
- _____ I faithfully contact friends through letters and/or e-mail
- _____ It is easy for me to explain my ideas to others
- _____ I keep a journal
- _____ Word puzzles like crosswords and jumbles are fun
- _____ I write for pleasure
- _____ I enjoy playing with words like puns, anagrams and spoonerisms
- _____ Foreign languages interest me
- _____ Debates and public speaking are activities I like to participate in

_____ TOTAL for Section 7

Section 8

- _____ I am keenly aware of my moral beliefs
- _____ I learn best when I have an emotional attachment to the subject
- _____ Fairness is important to me
- _____ My attitude effects how I learn
- _____ Social justice issues concern me
- _____ Working alone can be just as productive as working in a group
- _____ I need to know why I should do something before I agree to do it
- _____ When I believe in something I will give 100% effort to it
- _____ I like to be involved in causes that help others
- _____ I am willing to protest or sign a petition to right a wrong

_____ TOTAL for Section 8

Section 9

- _____ I can imagine ideas in my mind
 - _____ Rearranging a room is fun for me
 - _____ I enjoy creating art using varied media
 - _____ I remember well using graphic organizers
 - _____ Performance art can be very gratifying
 - _____ Spreadsheets are great for making charts, graphs and tables
 - _____ Three dimensional puzzles bring me much enjoyment
 - _____ Music videos are very stimulating
 - _____ I can recall things in mental pictures
 - _____ I am good at reading maps and blueprints
- _____ TOTAL for Section 9

Part II

Now carry forward your total from each section and multiply by 10 below:

Section	Total Forward	Multiply	Score
1		X10	
2		X10	
3		X10	
4		X10	
5		X10	
6		X10	
7		X10	
8		X10	
9		X10	

Part III

Now plot your scores on the bar graph provided:

100									
90									
80									
70									
60									
50									
40									
30									
20									
10									
0	Sec 1	Sec 2	Sec 3	Sec 4	Sec 5	Sec 6	Sec 7	Sec 8	Sec 9

Part IV

Key:

- Section 1 – This reflects your Naturalist strength
- Section 2 – This suggests your Musical strength
- Section 3 – This indicates your Logical strength
- Section 4 – This illustrates your Existential strength
- Section 5 – This shows your Interpersonal strength
- Section 6 – This tells your Kinesthetic strength
- Section 7 – This indicates your Verbal strength
- Section 8 – This reflects your Intrapersonal strength
- Section 9 – This suggests your Visual strength

Remember:

- ☞ Everyone has all the intelligences!
- ☞ You can strengthen an intelligence!
- ☞ This inventory is meant as a snapshot in time – it can change!
- ☞ M.I. is meant to empower, not label people!

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A Few Teaching Ideas For Multiple Intelligences

Intelligence	Teaching Activities (examples)	Teaching Materials (examples)	Instructional Strategies
Linguistic	lectures, discussions, word games, storytelling, choral reading, journal writing	books, tape recorders, typewriters, stamp sets, books on tape	read about it, write about it, talk about it, listen to it
Logical-Mathematical	brain teasers, problem solving, science experiments, mental calculation, number games, critical thinking	calculators, math manipulatives, science equipment, math games	quantify it, think critically about it, put it in a logical framework, experiment with it
Spatial	visual presentations, art activities, imagination games, mind-mapping, metaphor, visualization	graphs, maps, video, LEGO sets, art materials, optical illusions, cameras, picture library	see it, draw it, visualize it, color it, mind-map it
Bodily-Kinesthetic	hands-on learning, drama, dance, sports that teach, tactile activities, relaxation exercises	building tools, clay, sports equipment, manipulatives, tactile learning resources	build it, act it out, touch it, get a "gut feeling" of it, dance it
Musical	rhythmic learnings, rapping, using songs that teach	tape recorder, tape collection, musical instruments	sing it, rap it, listen to it
Interpersonal	cooperative learning, peer tutoring, community involvement, social gatherings, simulations	board games, party supplies, props for role plays	teach it, collaborate on it, interact with respect to it
Intrapersonal	individualized instruction, independent study, options in course of study, self-esteem building	self-checking materials, journals, materials for projects	connect it to your personal life, make choices with regard to it, reflect on it
Naturalist	nature study, ecological awareness, care of animals	plants, animals, naturalists' tools (e.g., binoculars), gardening tools	connect it to living things and natural phenomena

WEEKLY CHECKLIST FOR USING MULTIPLE INTELLIGENCES

WEEK OF:

**MATHEMATICAL-
LOGICAL**

VISUAL-SPATIAL

INTRAPERSONAL

INTERPERSONAL

BODY-KINESTHETIC

VERBAL-LINGUISTIC

MUSICAL-RHYTHMIC

NATURALIST

EXISTENTIAL

LESSON PLAN QUESTIONS FOR MULTIPLE INTELLIGENCES

MATHEMATICAL- LOGICAL

HOW CAN I INCLUDE NUMBERS, CLASSIFICATION, CRITICAL THINKING, AND CALCULATIONS?

VISUAL-SPATIAL

HOW CAN I INCLUDE VISUALS, COLORS, ART, GRAPHS, OR PICTURES?

INTRAPERSONAL

HOW CAN I INCLUDE PRIVATE LEARNING TIME, AND STUDENT CHOICE?

INTERPERSONAL

HOW CAN I INCLUDE GROUP WORK, PEER SHARING, AND DISCUSSION?

BODY-KINESTHETIC

HOW CAN I INCLUDE MOVEMENT, EXERCISE, DRAMA, OR CRAFTS?

VERBAL-LINGUISTIC

HOW CAN I INCLUDE READING, WRITING, OR SPEAKING?

MUSICAL-RHYTHMIC

HOW CAN I INCLUDE MUSIC, RHYTHMS, OR DANCE?

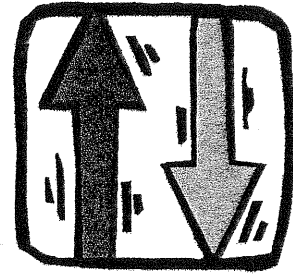
NATURALIST

HOW CAN I INCLUDE NATURE, ECOLOGY, THE OUTDOORS, OR OTHER LIVING THINGS?

EXISTENTIAL

HOW CAN I RELATE THIS MATERIAL TO THE "BIGGER PICTURE" IN LIFE?

THE HUMAN NUMBER LINE



1. MAKE 10 LARGE SIGNS EACH HAVING A NUMBER ON IT FROM 1-10.
2. TAPE EACH SIGN IN A NUMBER LINE ON A WALL WITH ABOUT 2 FEET BETWEEN EACH SIGN.
3. CALL OUT A TALENT, SUCH AS "SINGING" AND HAVE STUDENTS PLACE THEMSELVES ALONG THE NUMBER LINE ACCORDING TO THEIR PERCEIVED TALENT IN THAT AREA. "1" MEANS THAT THEY PERCEIVE THEMSELVES AS HAVING LITTLE OR NO TALENT IN THAT AREA AND "10" MEANS THAT THEY ARE VERY GOOD AT THAT TALENT.
4. WHEN ALL STUDENTS PLACE THEMSELVES, ASK THE "10"'S TO TALK A LITTLE ABOUT THEIR TALENT. IF APPROPRIATE, ALLOW THE "1"'S TO TALK AS WELL.
5. WHEN EVERYONE HAS HAD AN OPPORTUNITY TO SPEAK THAT WISHES, SHOUT OUT A DIFFERENT TALENT AND ASK THE STUDENTS TO REPOSITION THEMSELVES AND REPEAT #4 ABOVE.
6. MAKE CERTAIN THAT YOU USE A WIDE VARIETY OF TALENTS AND INCLUDE AREAS IN EACH OF THE NINE INTELLIGENCES.

GREAT WEBSITES FOR MULTIPLE INTELLIGENCES

GENERAL INFORMATION

WWW.THOMASARMSTRONG.COM/MULTIPLE_INTELLIGENCES.HTM

WWW.THIRTEEN.ORG/EDONLINE/CONCEPT2CLASS/MONTH1/

WWW.IGS.NET/~CMORRIS/CRIT.HTML

WWW.MITEST.COM/OMULTINT.HTM

MORE SURVEYS

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