

Multiple Intelligences Summary Sheet

Multiple Intelligences a theoretical approach to teaching students that has become widely used across the country in the last several years. It was developed by Howard Gardner, a professor at Harvard University. Gardner proposes that there are at least 7 (soon to be 8) modalities through which individuals take in and demonstrate information and concepts. He called these modalities “Intelligences”. Each individual is strong in some intelligences and weak in others. As teachers, we can use our knowledge of the various strengths and weakness of our students in order to help them learn most efficiently.

Verbal-Linguistic Intelligence: These students enjoy:

reading	vocabulary
formal speech	journaling
creative writing	poetry
verbal debate	impromptu speaking
humor/jokes	story telling

Interpersonal Intelligence: These students enjoy:

giving feedback	intuiting others’ feelings
cooperative learning	person-to-person communication
empathy practices	division of labor
collaboration	receiving feedback
group projects	sensing others’ motives

Logical-Mathematical Intelligence: These students enjoy:

abstract symbols	outlining
graphic organizers	number sequences
calculation	deciphering codes
sylogisms	forcing relationships
problem solving	pattern games

Bodily-Kinesthetic Intelligence: These students enjoy:

role playing	creative dance
drama	physical gestures
martial arts	body language
mime	physical exercise
inventing	sports

Musical-Rhythmic Intelligence: These students enjoy:

humming	rhythmic patterns
singing	vocal sounds/tones
tonal patterns	music composition/creation
music performance	environmental sounds
instrumental sounds	percussion vibrations

Intrapersonal Intelligence: These students enjoy:

mediation methods	metacognition techniques
thinking strategies	“Know Thyself” procedures
emotional processing	focusing/concentration skills
mindfulness practice	higher-order reasoning
“centering” activities	complex guided imagery

Visual-Spatial Intelligence: These students enjoy:

visualization	active imagination
color schemes	patterns/designs
painting	drawing
pretending	mind mapping
sculpture	visual pictures

The concept of multiple intelligence is also very effective in designing alternative assessments that allow students to really demonstrate what they know.

Verbal-Linguistic Assessments

- essays
- vocabulary quizzes
- recall of verbal info
- audiocassette recording
- writing poetry
- linguistic humor
- formal speech
- debates
- listening and reporting
- logs and journals

Interpersonal Assessments

- group “jigsaws”
- explaining
- think-pair-share
- round robin activities
- giving/receiving feedback
- interviews/questionnaires
- random group quizzes
- assessing teammates
- test-coach-retest
- empathetic processing

Logical-Mathematical Assessments

- cognitive organizers
- higher-order reasoning
- pattern games/tests
- outlining
- logic/rationality exercises
- mental menus/formulas
- deductive reasoning problems
- inductive reasoning problems
- calculations
- logical analysis and critique

Bodily-Kinesthetic Assessments

- lab experiments
- dramatization
- original dance
- charades/mimes
- impersonations
- human tableaux
- invention projects
- skills demonstrations
- physical games/exercises
- illustration using their bodies

Musical-Rhythmic Assessments

- creating concept songs/raps
- illustrating with sound
- discerning rhythmic patterns
- composing music
- linking music/rhythm with concepts
- orchestrating music
- recognizing patterns and quality
- analyzing musical structure

Intrapersonal Assessments

- autobiographical reporting
- personal application scenarios
- surveys and questionnaires
- higher-order questions/answers
- concentration tests
- diaries and logs
- personal projection
- personal history correlation

Learning Styles in Brief

<u>Modality</u>	<u>Strengths</u>	<u>Learn Best By:</u>
Visual	Learn by observation Can recall what they've seen Can follow written or drawn instructions Likes to read Use written notes	Charts, graphs and diagrams Sight words Visual similarities and differences Pictures and graphics Maps Silent reading
Auditory	Learn by listening Can recall what they've heard Can follow oral directions Use oral language effectively	Discussion and dialogue Memorization Phonics Oral reading Hearing anecdotes or stories
Tactile	Learn by touching and manipulating objects Can follow directions they've written themselves Mechanical tasks	Building models Art-type projects Using manipulatives Drawing Writing/tracing Designing things
Kinesthetic	Learn through physical activity Learn through experience Can follow direction that they've rehearsed Are often physically adept	Playing games Role playing Drama Building models Memorizing/learning while moving (pacing, stationary bike, finger or whole-body games...)
Global	Makes decisions based on emotion and intuition Less concerned with tidiness and order Spontaneous and creative Often a risk-taker An "idea" person	Stories and anecdotes Seeing the "whole" rather than individual parts Highly interesting project and materials Functional games and activities
Analytic	Makes decisions based on logic Well organized and plan oriented Detail oriented	Sequentially organized material Moving from the "part" to the "whole" Puzzles, logic games Teacher-directed activities with clearly defined goals and procedures

Analytical or Global

When it comes to...	Analytical thinkers tend to prefer..	Global thinkers tend to prefer...
1. Sound	Silence for concentrating	Some sound for concentrating
2. Light	Bright light for reading/studying	Very low light for reading/studying
3. Room Temperature	Turning the thermostat warmer; wearing heavy clothing	Turning the thermostat cooler: wearing lightweight clothing
4. Furniture	Studying at a desk and chair	Studying on a bed or floor
5. Mobility	Sitting still for long periods of time	Moving around constantly
6. Time of day	Learning in the morning; going to bed early	Learning later in the day; staying up late (a night owl)
7. Eating	Eating breakfast and regular meals	Skipping breakfast; snacking while learning.
8. Learning	Working alone or under the direction of one other person; being self-directed, independent	Working in group or peer learning; discovering answers rather than being told
9. Tasks	Working on one job at a time until done; being somewhat compulsive	Starting more jobs than they can complete; procrastinating
10. Planning	Making lists for everything; planning far ahead; putting tasks on a calendar; avoiding risk taking	Doing things when they "feel like it"; not planning ahead, but rather "going with the flow"; experimenting; trying things out
11. Deciding	Taking a long time to make decisions; second-guessing decisions	Being spontaneous in making decisions; doing what "feels right"
12. Time	Punctuality; wearing watches with large numbers	Running late; wearing fashion watches with few or no numbers
13. Neatness	Neat, well-organized appearance; outfits that go together	Disorganized appearance; clothes may not match
14. Perceiving	Seeing things as they are at the moment; noticing details	Seeing things as they might be; perceiving the whole; ignoring details
15. Assembling	Following directions step-by-step; starting over if they "get stuck"	Studying a picture of how something will look when complete, then assembling it their way
16. Thinking	Logically, analytically, sequentially; seeing cause and effect; perceiving differences; figuring out things step-by-step; understanding symbolic codes	Intuitively and randomly; seeing similarities and connections; working backwards from whole to parts from concrete to symbolic
17. Learning	Sequential tasks and concrete, logical steps	Learning through open-ended tasks; creating new ideas; learning through simile and metaphor
18. Remembering	Remembering what has been spoken	Remembering images of what has been seen and experienced
19. Taking tests	Predictable test formats (multiple choice, true-false, essay)	Opportunities to express themselves in ways other than writing

From TEACHING KIDS WITH LEARNING DIFFICULTIES IN THE REGULAR CLASSROOM by Susan Winebrenner, Free Spirit Publishing Inc., page 44. This page may be photocopied.

Learning Styles Summary Sheet

Probably the most notable research on individual learning styles has been done by Dr. Rita Dunn. In 1967, she developed a learning styles model that has since been extensively researched and implemented in schools and classrooms around the world. The concept behind the model involves figuring out how a student best understands, remembers and uses information and then choosing instructional strategies that teach to those strengths. A student's strengths, weaknesses and preferences are assessed in the following 5 areas.

Environmental Style - Does the student learn best when he/she:

- works in silence or with music/background noise...
- is cool or warm
- works in bright light or dim light
- is in a formal or informal setting

Emotional Style - Does the student learn best when he/she:

- is internally or externally motivated
- is a leader or a follower
- is in a structured or unstructured environment

Sociological Style - Does the student learn best when he/she works:

- with peers
- by him/herself
- with an adult
- in a varied setting

Physical Style - Does the student learn best when information is presented in:

- an auditory modality (hearing)
- a visual modality (sight)
- a tactile modality (needing to touch objects)
- a kinesthetic modality (needing to move)
- a combination of modalities

Psychological Style - Does the student learn best when information is presented:

- analytically (parts to the whole) or globally (whole to the individual parts)
- to the right hemisphere of the brain or the left
- in a way that allows him/her to process impulsively or reflectively

Once a profile is developed, instructional strategies can be chosen. For example, phonics is a good way to teach reading to students who are auditory-analytical learners but it is not as effective with visual- or tactile/kinesthetic-global learners. That doesn't mean that we don't use phonics at all with these students (the auditory modality can be strengthened to varying degrees depending on the individual). It simply means that, these students may benefit most from a more language-experience (whole language) or sight word program.

For additional information write:

National Reading Styles Institute
PO Box 39
Roslyn Heights, NY 11577
1-800-331-3117

Scholastic
PO Box 7502
Jefferson City, Mo 65102

Wright Group
10949 Technology PL
San Diego, Ca 92127

Or check out these references:

Strategies for Education Diverse Learners, Dunn, Rita, 1995.

How to Implement and Supervise a Learning Style Program, Dunn, Rita.

Learning Styles: Personal Exploration and Practical Applications. An Introduction to Style for Secondary Students, Butler, Kathleen.

Learning Styles and Performance Assessment, Prewitt, Bobby.

The North Carolina Education Place website This site has a couple of sections devoted to learning styles.

Seven Kinds of Learning Styles for Multiple Intelligences

Children who are strongly:	Think	Love	Need
Linguistic	in words	reading, writing, telling stories, playing word game, etc.	books, tapes, writing tools, diaries, dialogue, discussion, debate, stories, etc.
Logical-Mathematical	by reasoning	experimenting, questioning, figuring out logic puzzles, calculating, etc.	things to explore, science materials, manipulatives, science and nature trips, etc.
Spacial	in images and pictures	designing, drawing, visualizing, doodling, etc.	art, LEGOs, videos, imagination games, mazes, puzzles, trips to the art museum, illustrated books, etc.
Bodily-Kinesthetic	through somatic sensations	dancing, running, jumping, building, touching, gesturing, etc.	role play, drama, movement, things to build, sports, tactile experiences, hands-on learning, etc.
Musical	via rhythms and melodies	singing, whistling, humming, tapping hand and feet, listening, etc.	sing-along time, concerts, music playing at home and school, musical instruments, etc.
Inter-personal	by bouncing ideas off of other people	leading, organizing, relating, manipulating, meditating, partying, etc.	friends, group games, social gatherings, community events, clubs, mentor/apprenticeships, etc.
Intra-personal	deeply inside of themselves	setting goals, meditating, dreaming, being quiet, planning	secret places, time alone, self-paced projects, choices, etc.

Summary of the “Seven Ways of Teaching”

Intelligence	Teaching Activity (examples)	Teaching Materials (examples)	Instructional Strategies
Linguistic	lectures, discussions, word games, storytelling, choral reading, journal writing, etc.	books, tape recorders, word processor, stamp sets, books on tape, etc.	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, etc.	calculators, math manipulatives, science equipment, math games, etc.	quantify it, think critically about it, conceptualize it
Spacial	visual presentations, art activities, imagination games, mind-mapping, metaphor, visualization, etc.	graphs, maps, video, LEGO sets, art materials, optical illusions, cameras, picture library, etc.	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, etc.	building tools, clay, sports equipment, manipulatives, tactile learning resources, etc.	build it, act it out, touch it, get a “gut feeling” of it, dance it
Musical	superlearning, rapping, songs that teach	tape recorder, tape collection (or CDs), musical instruments, etc.	sing it, rap it, listen to it
Inter-personal	cooperative learning, peer tutoring, community involvement, social gatherings, simulations, etc.	board games, party supplies, props for role plays, etc.	teach it, collaborate on it, interact with respect to it
Intra-personal	individualized instruction, independent study, options in course of study, self-esteem building, etc.	self-checking materials, journals, materials for projects, etc.	connect it to your personal life, make choices with regard to it

Multiple Intelligences Self Profile

Directions: Read each statement.

Use the scale below and give each statement a number that best represents your response.

your

1= Not at all like me 2= A little like me 3= Somewhat like me 4= A lot like me 5= Definitely me

Section 1

a. I have a deep sense of awareness of inner feelings, strengths and weaknesses.	
b. I have a strong sense of independence, strong will and am self-directed.	
c. I prefer my own private world/time to large group functions.	
d. I like to be alone to pursue personal hobbies, interests or projects.	
e. I have a deep sense of self confidence.	
Total	

Section 2

a. I like being with people more than being alone.	
b. I have many friends.	
c. I enjoy socializing in a variety of environments.	
d. I learn best through cooperative activities.	
e. I am good at communication, organizing and sometimes even manipulating people.	
Total	

Section 3

a. I learn best by moving, touching and/or acting out information.	
b. I process most of my knowledge through sensations.	
c. I have well defined ability in fine and gross motor skills.	
d. I enjoy taking things apart and putting them back together.	
e. I can mimic other people's mannerisms well.	
Total	

Section 4

a. I enjoy reading, writing and listening.	
b. I enjoy jokes, tall tales and stories.	
c. I easily remember names, places, dates and other trivia.	
d. I can spell accurately and have a highly developed vocabulary.	
e. I like crossword puzzles or playing word games.	
Total	

Section 5

a. I like to explore patterns, categories and relationships of information.	
b. I can compute math problems easily and quickly.	
c. I can group, order, analyze, interpret and predict data.	
d. I enjoy strategy games (e.g. chess) and like to win.	
e. I ask a lot of questions about how things work.	
Total	

Section 6

a. I think in images and pictures.	
b. I like to draw, paint, sculpt and engage in other art activities.	
c. I use clear visual images when thinking about concepts and explaining information.	
d. I can draw accurate representations of people or things.	
e. I tend to daydream when learning new information.	
Total	

Section 7

a. I am highly aware of sounds within the environment.	
b. I typically play music when working or relaxing.	
c. I can easily remember melodies of songs.	
d. I generally know when music or a note is off key.	
e. I like to sing, hum and keep rhythm.	
Total	

To determine your most prevalent intelligence, complete the following steps:

1. Add the scores for each section and place the number on the “total” line for that section.
2. Take the total score from each section and mark the score on the graph. Color in the area below the score to develop a picture of which intelligence(s) appears your area of strength or preference.

to be

Intelligence Scoring Graph

Total	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6	Section 7
25							
23							
21							
19							
17							
15							
13							
11							
9							
7							
5							
3							
1							
	intra-personal	inter-personal	bodyily kinesthetic	linguistic	mathemati-cal/logical	visual spacial	musical