From: Frames of Mind: Theory of Multiple Intelligences

Howard Gardner

Bodily & Kinesthetic

Core Characteristics:

- Sensory – internalizes information through bodily sensation
- Reflexive – responds quickly and intuitively to physical stimulus
- Tactile – demonstrates well-developed gross and/or fine motor skills
- Concrete – expresses feelings and ideas through body movement
- Coordinated – shows dexterity, agility, flexibility, balance and poise
- Task Orientated – strive to learn by doing

Students with a strong kinesthetic intelligence:

- Seek to interact with their environment
- Enjoy hands-on activities
- Can remain focused on a hands-on task for an extended period of time
- May demonstrate strong fine and/or gross motor ability
- Prefer learning centers to seat work
- Seek out other students who are physically gregarious
- Master a principle once they can manipulate materials that demonstrate the concept
- Enjoy group games and active learning tasks
- Are different from children who are hyperactive

Support this intelligence in the classroom by:

- Providing hands-on learning centers
- Incorporating creative drama into your instruction
- Including interactive games in reviewing and remediating content
- Offering experiences in movement to rhythm and music
- Engaging students in hands-on science experiments
- Utilizing manipulatives in math instruction
- Allowing opportunities for building and taking apart
- Encouraging students to construct physical representations of concepts
- Keeping students physically moving throughout the school day

Technologies that stimulate this intelligence:

- Construction tools
- Kitchen utensils
- Screw
- Lever
- Wheel and axle
- Inclined plane
- Pulley
- Wedge
- Physical education equipment
- Manipulative materials
- Mouse
- Joystick
- Simulations that require eye-hand coordination
- Assistive technologies

Existential

Core Characteristics:

- Collective Consciousness – the capability to see how something relates to the big picture
- Collective Values – the understanding of classical western values of truth, goodness and beauty
- Summative Iteration – the ability to summarize details into a larger understanding
- Intuitive Iteration – a responsiveness to the intangible qualities of being human, be it responding to the arts, philosophical virtues or religious tenets

Students with a strong existential intelligence:

- Seek meaningful learning
- Look for connections across the curriculum
- Like to synthesize ideas based on their learning
- Enjoy literature and customs from other cultures
- Have a strong connection with family and friends
- Develop a strong identity with their neighborhood and town
- Express a sense of belonging to a global community
- Like to get involved with social and political causes
- Can have a strong commitment to their health and well-being
- Tend to look at information relative to the context in which it is presented

Support this intelligence in the classroom by:

- Offering an overview before starting new instruction
- Considering topics from multiple points of view
- Relating material to global themes and concepts
- Integrating your instruction across the curriculum
- Including the arts in instruction where appropriate
- Discussing how topics are important to the classroom, school, community or world
- Bringing in resource people who offer additional perspective on a topic
- Allowing students to demonstrate learning by applying understanding in new and different contexts

Technologies that stimulate this intelligence:

- Art replica
- Planetarium
- Stage drama
- Classic literature
- Classic philosophy
- Symbols of world religions
- Virtual communities
- Virtual art exhibits
- Virtual field trips
- Blogs
- Virtual reality
- Simulations

Interpersonal

Core Characteristics:

- Collaborative Skills – the capability to jointly complete tasks with others
- Cooperative Attitude – the willingness to offer and accept input
- Leadership – recognition by peers as someone to follow
- Social Influence – an ability to persuade others
- Social Empathy – an awareness and concern for others
- Social Connection – a skill for meaningfully relating to others

Students with a strong interpersonal intelligence:

- Seek the support of a group
- Value relationships
- Enjoy collaborative work
- Solicit input from others
- Enjoy sharing about themselves
- Display a "winning" personality
- Tend to be natural leaders

Support this intelligence in the classroom by:

- Allowing interaction among students during learning tasks
- Including activities where students work in groups
- Providing opportunities for students to select their own groups
- Forming cooperative groups wherein each member has an assigned role
- Planning activities where students form teams to be successful
- Allowing competition that promotes higher level achievement
- Incorporating structured dramatic activities in which students can role play
- Utilizing resource people to invigorate your classroom
- Promoting interaction with other classes by participating in learning tasks together

Technologies that stimulate this intelligence:

- Class discussion
- Post-it notes
- Greeting card
- Laboratory
- Telephone
- Walkie-talkie
- Intercom
- Board games
- Costumes
- Collaborative projects

- Chat
- Message boards
- Instant messenger

Intrapersonal

Core Characteristics:

- Affective Awareness – the knowledge of one's feelings, attitudes and outlook
- Ethical Awareness – the setting of one's principles and moral priorities
- Self-Regulation – monitoring one's thoughts, actions and behavior
- Metacognition – the awareness of one's thought processes

Students with a strong intrapersonal intelligence:

- Are comfortable with themselves
- Express strong like or dislike of particular activities
- Communicate their feelings
- Sense their own strengths and weaknesses
- Show confidence in their abilities
- Set realistic goals
- Make appropriate choices
- Follow their instincts
- Express a sense of justice and fairness
- Relate to others based on their sense of self

Support this intelligence in the classroom by:

- Differentiating instruction
- Using analogies in making comparisons
- Providing activities which offer learner choices
- Having students set goals for themselves in the classroom
- Including daily journal writing in your classroom routine
- Providing opportunities for learners to express their feelings on a topic
- Allowing opportunities for student reflection on learning
- Examining current events in terms of social justice
- Including student self-assessment in classroom assessment strategies
- Utilizing interest inventories, questionnaires, interviews and other approaches to measuring student growth

Technologies that stimulate this intelligence:

- Journals
- Diaries
- Surveys
- Voting machines
- Learning centers
- Children's literature
- Class discussion
- Real time projects
- Online surveys
- Online forms
- Digital portfolios
- Self-assessments

Logical/Mathematical

Core Characteristics:

- Linear Reasoning – seeking order and consistency in the world
- Concrete Reasoning - breaking down systems into their components
- Abstract Reasoning - using symbols that represent concrete ideas
- Causal Relationships – identifying cause and effect within a system
- Complex Operations – performing sophisticated algorithms

Students with a strong logical intelligence:

- Seek order
- Reason scientifically
- Identify relationships
- Enjoy testing theories
- Like completing puzzles
- Excel at calculating numbers
- Solving problems instinctively
- Analyze abstract ideas
- Manipulate functions
- Perform these operations at a rapid rate

Support this intelligence in the classroom by:

- Creating intrinsic and extrinsic order in your classroom
- Presenting criteria at the beginning of an activity to provide structure
- Offering open-ended problem solving tasks
- Including convergent thinking activities in instruction
- Promoting experiments which test student hypotheses
- Using syllogisms in language

- Encouraging classroom debate
- Incorporating puzzles into learning centers
- Setting short term, achievable goals for the class
- Allowing students to participate in building assessment rubrics

Technologies that stimulate this intelligence:

- Lecture
- Unifix cubes
- Tangrams
- Measuring cups
- Measuring scales
- Ruler/yardstick
- Slide rule
- Graphing calculators
- Spreadsheet
- Search engine
- Directory
- WebQuests
- Problem solving tasks

Rhythmic/Musical

Core Characteristics:

- Aural Orientation – heightened listening ability
- Patterning – seeking all kinds of patterns, not just in sound
- Resonance - identification with patterns as an expression of experience
- Audiation – thinking musically rather than verbally

Students with a strong rhythmic intelligence:

- Seek patterns in new information
- Find patterns in their environment
- Are particularly drawn to sound
- Respond to cadence in language
- Enjoy moving to rhythms
- Pick up terms and phrases in foreign languages easily
- Use patterning to both internalize and recall skills, ideas and concepts

Support this intelligence in the classroom by:

- Working with pattern blocks
- Hearing sounds in one's environment
- Moving to rhythm
- Drawing visual patterns

- Learning a foreign language
- Identifying rhyme schemes
- Finding patterns in sequences of numbers
- Listening to a symphony
- Deciphering code
- Learning to read music

Technologies that stimulate this intelligence:

- Pattern blocks
- Puzzles
- Musical instruments
- Phonograph
- Headphones
- Tape player/recorder
- Digital sounds
- Online pattern games
- Multimedia presentations
- Speakers
- CD ROM disks
- CD ROM player

Naturalist

Core Characteristics:

- Natural Orientation – identification with living organisms and their environments
- Attribute Orientation – finding common traits among items
- Categorization – identifying categories by attribute
- Hierarchical Reasoning – ranking items by significance and relationship
- Schematic Memory – internalizing and recalling information by attribute, category or hierarchy

Students with a strong naturalist intelligence:

- Are intrinsically organized
- Demonstrate an empathy with nature
- Pick up on subtle differences in meaning
- Like to make collections of materials
- Enjoy sorting and organizing materials
- Impose their own sense of order on new information
- Respond to semantic mapping activities
- Prefer charts, tables, diagrams and timelines

Support this intelligence in the classroom by:

- Using graphic organizers
- Providing sorting and attribute grouping tasks
- Brainstorming categories
- Charting hierarchies
- Utilizing semantic mapping of ideas
- Building portfolios of student work
- Making connections to the natural world
- Modeling strategies for finding common attributes, categories and hierarchies across the curriculum

Technologies that stimulate this intelligence:

- Magnifying glass
- Microscope
- Telescope
- Bug box
- Scrap book
- Sandwich bag
- Plastic container
- Database
- Laserdisc
- Floppy drive
- File manager
- Semantic mapping tools

Linguistic

Core Characteristics:

- Ideation – think and remember through internal language
- Functional Literacy - understand the rules and functions of language
- Self-Regulation - analyze one's own use of language
- Adaptation – apply rules of language to new and different contexts
- Oral Expression –explain and express one's self verbally
- Written Expression - explain and express one's self in writing

Students with a strong linguistic intelligence:

- Appreciate the subtleties of grammar and meaning
- Spell easily
- Enjoy word games
- Understand jokes, puns, and riddles
- Use descriptive language
- Are good storytellers

- Internalize new information through lecture and discussion
- Demonstrate understanding easily through discussion and essay

Support this intelligence in the classroom by:

- Exploring new vocabulary
- Learning terms and expressions from other languages
- Encouraging opportunities for public speaking
- Incorporating drama into learning
- Keeping daily journals
- Promoting opportunities for creative writing
- Nurturing oral storytelling
- Including opportunities for expository and narrative writing
- Utilizing quality children's and young adult literature in the classroom

Technologies that stimulate this intelligence:

- Textbook
- Pen/pencil
- Worksheet
- Newspaper
- Magazine
- Word processing
- Electronic mail
- Desk top publishing
- Web-based publishing
- Keyboard
- Speech recognition devices
- Text bridges

Visual

Core Characteristics:

- Spatial Awareness - solving problems using spatial orientation
- Non-sequential Reasoning - thinking in divergent ways
- Visual Acuity - assessment of information based on principals of design and aesthetics
- Imagination - seeing the possibilities before engaging them in the physical world
- Small motor coordination - creating, building, arranging, decorating

Students with a strong visual intelligence:

- Seek ocular stimulation
- Respond to color, line and shape

- Can "see" ideas
- Use mental images for mnemonic devices
- Imagine possibilities
- Enjoy expressing themselves through the arts
- Appreciate symmetry and congruence
- Enjoy rearranging their environment
- Can manipulate three-dimensional models in their minds
- Understand by seeing a concept in action

Support this intelligence in the classroom by:

- Allowing student movement around the learning environment
- Providing a visually stimulating environment
- Sketching plans before beginning work
- Brainstorming ideas
- Semantic mapping
- Guided imagery exercises
- Working with manipulatives
- Diagramming abstract concepts
- Providing visual assessment performance tasks
- Utilizing visual technologies such as KidPix and PowerPoint

Technologies that stimulate this intelligence:

- Overhead projector
- Television
- Video
- Picture books
- Art supplies
- Dry erase board
- Slide shows
- Charting and graphing
- Digital camera/camcorder
- Scanner
- Graphics editor
- HTML editor
- Digital animation
- Digital movies