

The background is a gradient from dark purple on the left to dark blue on the right, with a starry or speckled texture. On the left side, there are several overlapping circular elements. A prominent one is a large circular scale with tick marks and numbers ranging from 140 to 260. Other circles include dashed lines, solid lines, and arrows, suggesting a technical or scientific theme.

MULTIPLE INTELLIGENCES

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OUTLINE

- Types of intelligences and their definitions
- Sample tests
- Learning styles, modalities
- Sample tests
- Metacognition

TYPES OF INTELLIGENCES

The multiple intelligences

1. Logical-mathematical
2. Spatial
3. Linguistic
4. Bodily-kinesthetic
5. Musical
6. Interpersonal
7. Intrapersonal
8. Naturalistic
9. Existential

Howard Gardner *Frames of Mind: The Theory of Multiple Intelligences*

Logical-mathematical

- logic, abstractions, reasoning and numbers and critical thinking
- capacity to understand the underlying principles of some kind of causal system

Spatial Intelligence

- spatial judgment and the ability to visualize with the mind's eye
- the ability or mental skill to solve spatial problems of navigation, visualization of objects from different angles and space, faces or scenes recognition or to notice fine details.

Linguistic

- facility with words and languages.
- good at reading, writing, telling stories and memorizing words along with dates

Bodily-kinesthetic

- control of one's bodily motions and the capacity to handle objects skillfully
- a sense of timing, a clear sense of the goal of a physical action, along with the ability to train responses.

People who have bodily-kinesthetic intelligence should learn better by involving muscular movement (e.g. getting up and moving around into the learning experience), and be generally good at physical activities such as sports, dance, acting, and making things.

Musical

- sensitivity to sounds, rhythms, tones, and music.
- good pitch, even absolute pitch
- ability to sing, play musical instruments, and compose music
- learn best via lecture
- use songs or rhythms to learn
- have sensitivity to rhythm, pitch, meter, tone, melody or timbre.

Interpersonal

- sensitivity to others' moods, feelings, temperaments and motivations
- ability to cooperate in order to work as part of a group
- communicate effectively and empathize easily with others
- leaders or followers
- learn best by working with others, enjoy discussion and debate

Intrapersonal

This area has to do with introspective and self-reflective capacities. This refers to having a deep understanding of the self; what your strengths/ weaknesses are, what makes you unique, being able to predict your own reactions/emotions.

Naturalistic

This area has to do with nurturing and relating information to one's natural surroundings. Examples include classifying natural forms such as animal and plant species and rocks and mountain types. This ability was clearly of value in our evolutionary past as hunters, gatherers, and farmers.

Existential

Some proponents of multiple intelligence theory proposed spiritual or religious intelligence as a possible additional type.

TESTS

- <http://www.literacyworks.org/mi/assessment/findyourstrengths.html>
- <http://www.youtube.com/watch?v=cf6lqfNTmaM>

THEORY BEHIND THE MODEL – LEARNING STYLES

Learning modalities are the sensory channels or pathways through which individuals give, receive, and store information. Perception, memory, and sensation comprise the concept of modality. The modalities or senses include visual, auditory, tactile/kinesthetic, smell, and taste.

- Visual (25 – 30%)
- Auditory (25 – 30%)
- Tactile/kinesthetic (15%)
- Mixed modalities (25 – 30%)

Visual learners are those who learn by seeing. They need to see overheads, diagrams, and read text books, etc. to understand a concept.

Auditory learners must hear what they are learning to really understand it. They enjoy listening, but cannot wait to have a chance to talk themselves. These students respond well to lecture and discussion.

Tactile/kinesthetic learners need to feel and touch to learn...These learners also learn better if movement is involved. Instruction geared to the auditory learner can be a hindrance to these learners, causing them to fall behind. Students with a tactile strength learn with manipulatives such as games, the internet, and labs.

MODALITES....How do you Learn?

<i>When you..</i>	Visual	Auditory	Kinesthetic & Tactile
Spell	Do you try to see the word?	Do you sound out the word or use a phonetic approach?	Do you write the word down to find if it feels right?
Talk	Do you sparingly but dislike listening for too long? Do you favor words such as <i>see</i> , <i>picture</i> , and <i>imagine</i> ?	Do you enjoy listening but are impatient to talk? Do you use words such as <i>hear</i> , <i>tune</i> , and <i>think</i> ?	Do you gesture and use expressive movements? Do you use words such as <i>asfeel</i> , <i>touch</i> , and <i>hold</i> ?
Concentrate	Do you become distracted by untidiness or movement?	Do you become distracted by sounds or noises?	Do you become distracted by activity around you?
Meet someone again	Do you forget names but remember faces or remember where you met?	Do you forget faces but remember names or remember what you talked about?	Do you remember best what you did together?
Contact people on business	Do you prefer direct, face-to-face, personal meetings?	Do you prefer the telephone?	Do you talk with them while walking or participating in an activity?
Read	Do you like descriptive scenes or pause to imagine the actions?	Do you enjoy dialog and conversation or hear the characters talk?	Do you prefer action stories or are not a keen reader?
Do something new at work	Do you like to see demonstrations, diagrams, slides, or posters?	Do you prefer verbal instructions or talking about it with someone else?	Do you prefer to jump right in and try it?
Put something together	Do you like at the directions and the picture?		Do you ignore the directions and figure it out as you go along?
Need help with a computer application	Do you seek out pictures or diagrams?	Do you call the help desk, ask a neighbor, or growl at the computer?	Do you keep trying to do it or try it on another computer?

LEARNER DIFFERENCES

Introverted learners

prefer academic teaching, writing and reading assignments.

Extroverted learners

prefer cooperative strategies and communicative activities.

Field-dependent learners

their thinking relates to context, they are syllabus-bound.

Field-independent learners

are better at cognitive functioning, their thinking is independent of the surroundings. They are syllabus-free.

TESTING YOUR LEARNING STYLE

- http://www.brainboxx.co.uk/a3_aspects/pages/vak_quest.htm
- <http://www.youtube.com/watch?v=oNxCporOofo>

METACOGNITION

- Thinking about thinking
- Awareness or analysis of one's own learning or thinking processes
- Higher order thinking which involves active control over the cognitive processes engaged in learning
- Planning how to approach a given learning task, monitoring comprehension, and evaluating progress toward the completion of a task
- Important to study metacognitive activity and development to determine how students can be taught to better apply their cognitive resources through metacognitive control.

FIVE COMPONENTS FOR METACOGNITION

- 1) preparing and planning for learning
- 2) selecting and using learning strategies
- 3) monitoring strategy use
- 4) orchestrating various strategies
- 5) evaluating strategy use and learning

PREPARING AND PLANNING FOR LEARNING

The reason for this component is that students make a plan of what they need to do and organize their thoughts and activities in order to engage in complex tasks. This preparation helps them to complete more complex tasks than would otherwise be possible. Organizing or planning is helpful before starting any large assignment that can be divided into smaller parts in order to make it more controllable.

SELECTING AND USING LEARNING STRATEGIES

This strategy is vital to problem solving. Students reflect on their personal learning styles and strategies. They control their own learning conditions to take full advantage of achieving their goals. Students realize how they learn best, they organize conditions to help themselves learn, they focus their attention on the task, and they seek opportunities for practice in the target language. Managing one's own learning is an important part of problem solving on any task.

MONITORING STRATEGY USE

Learners question whether an idea makes sense in order to check the clarity of their understanding or expression in the target language. Students are aware of how well a task is progressing and notice when comprehension breaks down.

ORCHESTRATING VARIOUS STRATEGIES

Knowing how to coordinate the use of more than one strategy is an important metacognitive skill. The ability to direct, systematize, and make connections among the various existing strategies is a key distinction between strong and weak second language learners. Teachers can support learners by making them aware of multiple strategies available to them. The teacher also needs to show students how to recognize when one strategy is not working and how to shift to another.

EVALUATING STRATEGY USE AND LEARNING

Deciding for themselves how well they acquired some material or performed on a task helps students categorize their strengths and weaknesses so they can do even better the next time. Assessing how well a strategy works for them helps students decide which strategies they prefer to use on particular tasks.

SUMMARY

- <http://www.youtube.com/watch?v=xoKUcRwLCWA>