

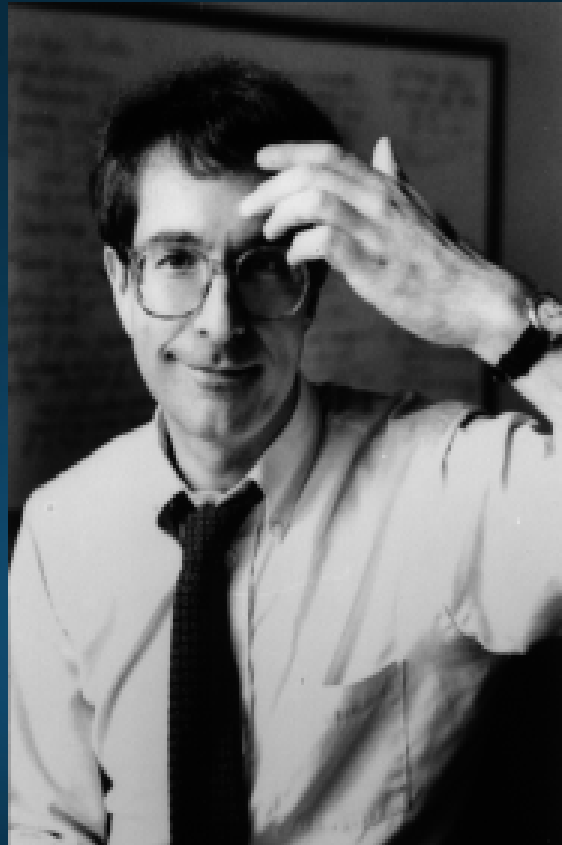


MULTIPLE INTELLIGENCES

Helping Students
Reach Their Potential

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- Boston University School of Medicine
- Adjunct Prof. Of Neurology
- Author of 16 books



We are all smart.

We are smart in different ways.

One way is not better than another.



What is intelligence?

- “The ability to solve problems or to create products that are valued within one or more cultural settings.”

Frames of Mind: The Theory of Multiple Intelligences (1983)

- “A biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture.”

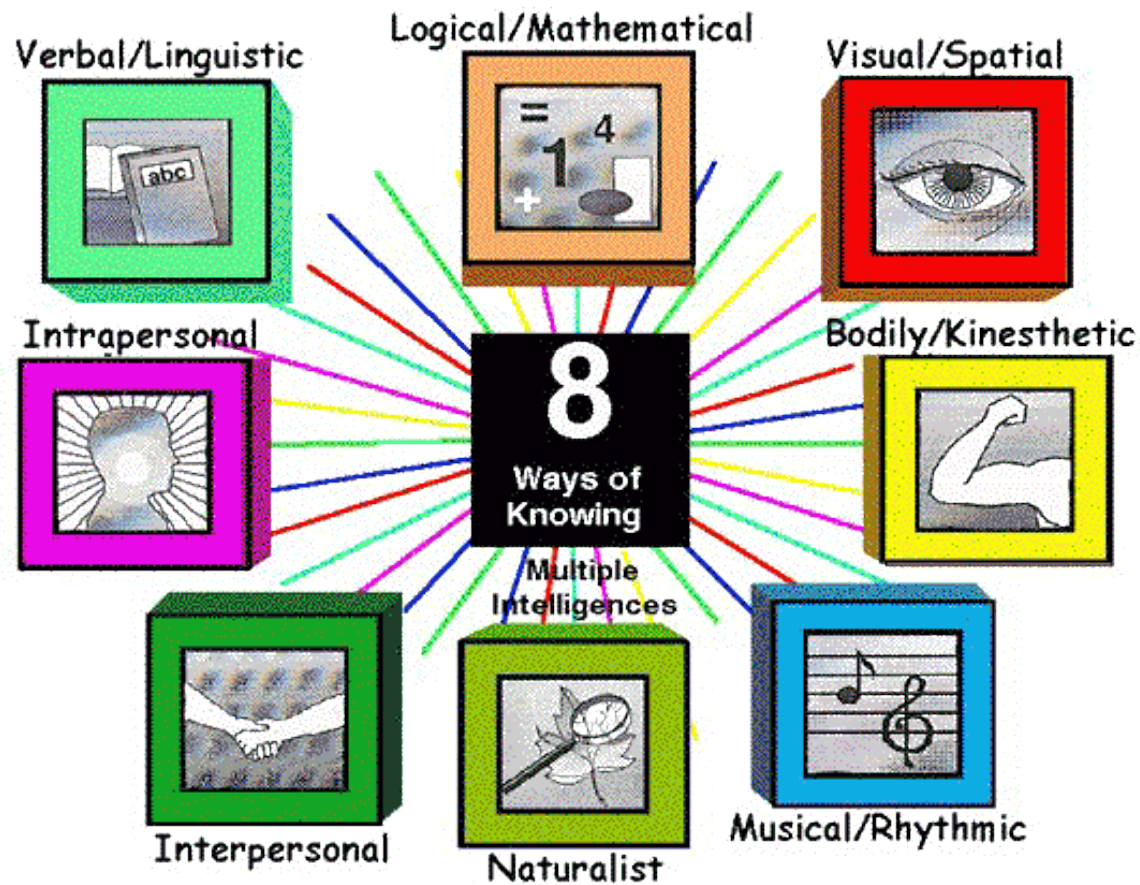
Intelligence Reframed (1999)



Other Questions

- What are the eight intelligences identified by Gardner?
- How do you know how you are smart?
- How can we incorporate MI theory into our teaching?
- How can students study more effectively using their intellectual preferences?

Multiple Intelligences





It's Not How Smart You Are..

It's How You Are Smart!

How are you smart?



Verbal/Linguistic Intelligence

- Listens and responds to the spoken word.
- Enjoys reading, writing, and discussing.
- Remembers what has been **said**.
- Remembers what has been **read**.
- Speaks and writes effectively.
- Can learn other languages.



Logical/Mathematical Intelligence

- Is familiar with the concepts of quantity, time, and cause and effect.
- Uses abstract symbols to represent concrete objects and concepts.
- Likes math and using technology to solve complex problems.
- Expresses interest in careers such as accounting, computer technology, and law.



Bodily/Kinesthetic Intelligence



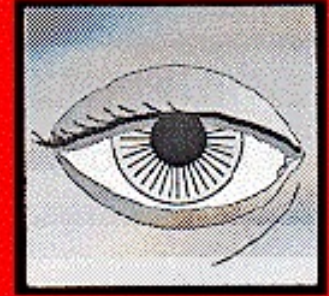
- Prefers to touch, handle, or manipulate what is to be learned.
- Develops coordination and a sense of timing.
- Learns best by direct involvement and participation.
- Remembers most clearly what was done, rather than what was said or observed.

Bodily/Kinesthetic Intelligence



- Enjoys concrete learning experiences such as field trips, model building, or participating in role play, games, assembling objects, or physical exercise.
- Demonstrates skill in acting, athletics, dancing, sewing, carving, or keyboarding.

Visual/Spatial Intelligence



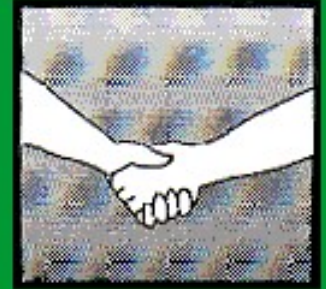
- Learns by seeing and observing. Recognizes faces, objects, shapes, colors, details, and scenes.
- Thinks in pictures and visualizes detail.
- Uses visual images as an aid in recalling information.
- Enjoys doodling, drawing, painting, sculpting, or otherwise reproducing objects in visible form.

Musical Intelligence



- Listens and responds with interest to a variety of sounds including the human voice, environmental sounds, and music, and organizes such sounds into meaningful patterns.
- Is eager to be around and learn from music and musicians.
- Develops the ability to sing and/or play an instrument.

Interpersonal Intelligence



- Bonds with parents and interacts with others.
- Forms and maintains social relationships.
- Perceives the feelings, thoughts, motivations, behaviors, and lifestyles of others.
- Expresses an interest in interpersonally-oriented careers such as teaching, social work, counseling, management, or politics.

Intrapersonal Intelligence



- Is aware of his range of emotions.
- Is motivated to identify and pursue goals.
- Works independently.
- Establishes and lives by an ethical value system.
- Strives for self-actualization.

Naturalist Intelligence




- Recognizes and can name many different types of trees, flowers, and plants.
- Has an interest in and good knowledge of how the body works and keeps abreast of health issues.
- Is conscious of tracks, nests, and wildlife on a walk and can “read” weather signs.
- Has an understanding of, and interest in, the main global environmental issues.



How you are smart . . .


impacts the way you teach.



The Effects of Teachers' Learning Styles on Teaching

Learning Style	Effect on Teaching
The Verbal/Linguistic Learner	This teacher stresses a curriculum based on language—reading, writing, and speaking.


Stay alert to students with more concrete learning styles.



The Effects of Teachers' Learning Styles on Teaching

Learning Style	Effect on Teaching
The Logical/Mathematical Learner	This teacher tends to concentrate on concepts that are both logical and abstract.


Make a deliberate effort to focus on the fact that it is appropriate for students to be artistic and to think in intuitive leaps.



The Effects of Teachers' Learning Styles on Teaching


Learning Style	Effect on Teaching
The Visual/Spatial Learner	This teacher will provide a great learning environment for visual learners. The artistic students will do well in this classroom.

Build in adequate opportunities for students who are linguistic learners and for those who feel artistically inhibited.




The Effects of Teachers' Learning Styles on Teaching

Learning Style	Effect on Teaching
The Bodily/Kinesthetic Learner	This teacher will encourage experiential learning and have lots of movement in class. It may be a challenge to both the logical learner and the intrapersonal learner.



The Effects of Teachers' Learning Styles on Teaching


Learning Style	Effect on Teaching
The Musical/Rhythmic Learner	This teacher will tend to have a relaxed classroom but may find it harder to relate to those students who are not “in tune with” music.



The Effects of Teachers' Learning Styles on Teaching

Learning Style	Effect on Teaching
The Interpersonal Learner	This teacher generally uses cooperative learning in the classroom. Students will feel free to interact and are expected to do so; perfect for the extrovert.

Be sensitive to the students who need to be alone in order to create, to learn, or just to be.



The Effects of Teachers' Learning Styles on Teaching

Learning Style	Effect on Teaching
The Intrapersonal Learner	This teacher will be a great support for the student who has trouble functioning in groups.

MI Lesson Planning Guide

Logical/Mathematical

How can I use numbers, lists, classifications, logic, scientific inquiry?

Visual/Spatial

How can I use visualization, art, colors, or metaphors?

Intrapersonal

How can I provide choices or involve personal memories or feelings?

Verbal/Linguistic

How can I use language (stories, poems, reader's theater)?

Theme/Concept

Musical - How can I use music, rhythm, songs, raps, chants, or instruments?

Interpersonal - How can I use partners or cooperative group activities?

Bodily/Kinesthetic

How can I use movement or hands-on activities?

Naturalist - How can I get students to collect data or observe nature?



Verbal/Linguistic Study Tips



What
is MI?

- Paraphrase what you have heard or read out loud.
- Form questions, find the answers, and speak them out loud.
- Discuss what you are studying with others.

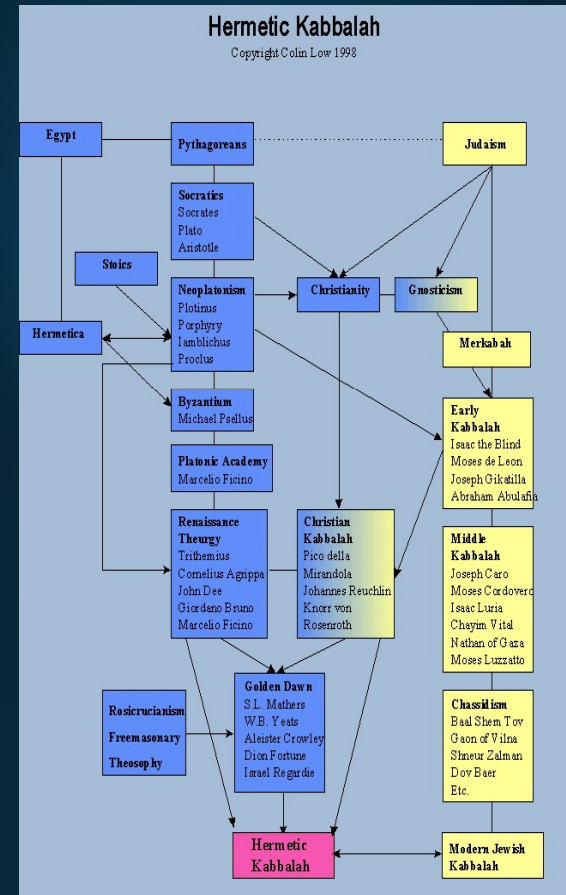
Verbal/Linguistic Study Tips

- Ask a lot of questions.
- Read aloud dramatically—perhaps even with an accent, and use audiocassettes to record and listen to lectures or to record and listen to notes you read.



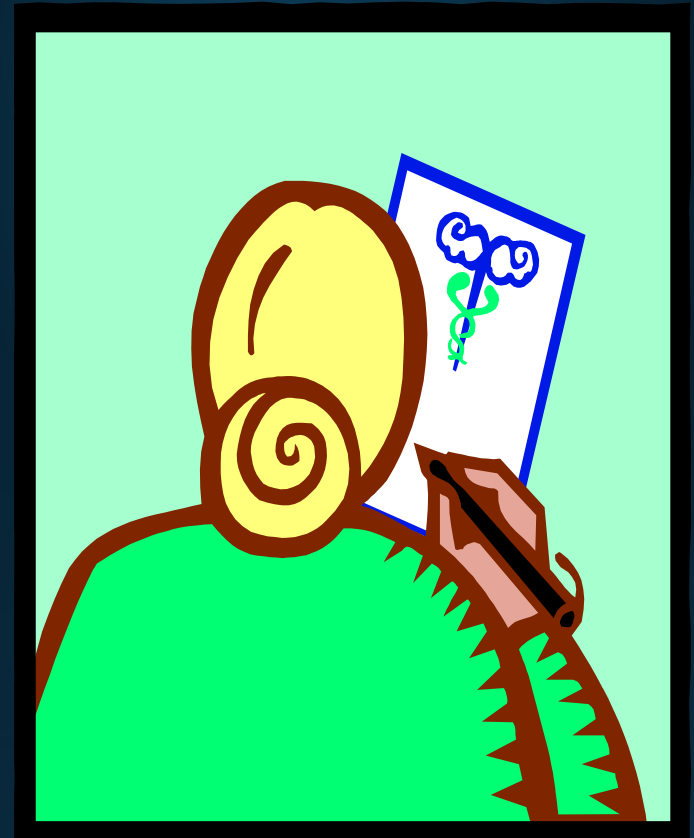
Logical/Mathematical Study Tips

- List the key points of what you are learning in a logical, numbered sequence.
- Make a flow chart or diagram that expresses what you are learning in a step-by-step manner.



Bodily/Kinesthetic Study Tips

- Act out or role play what you are learning.
- Practice a skill as soon as it is learned—hands-on experience.



Bodily/Kinesthetic Study Tips

- Walk around while reading.
- Listen to tapes while exercising.



Bodily/Kinesthetic Study Tips

- Take notes on postcards and then arrange the topics so that they make better sense to you or make new relationships.



Bodily/Kinesthetic Study Tips


- Make notes by paraphrasing the material instead of just taking notes on what the author or teacher is saying.



Bodily/Kinesthetic Study Tips

- Let the information sink in while you take a walk or go do something else.
- Use a buddy to help you study.
 - E-mail/phone





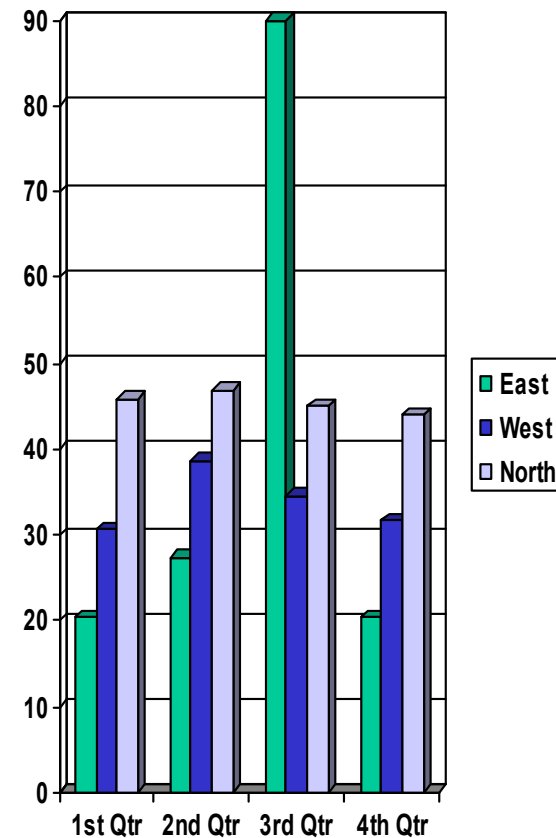
Visual/Spatial Study Tips

- Create a learning map using key words, primarily nouns
- Create a poster, cartoon, a video, or time line.
- Use symbols instead of words.



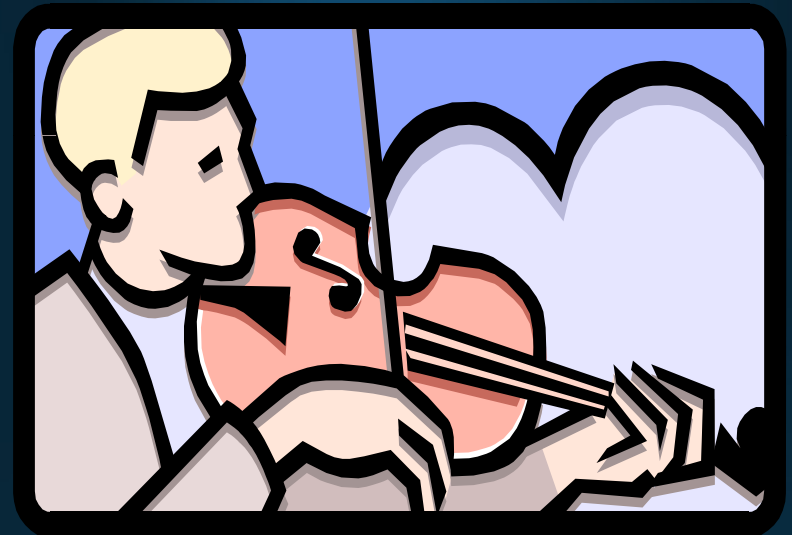
Visual/Spatial Study Tips

- **Color highlight** new ideas.
- **Write down** what is heard.
- **Prepare graphs and diagrams.**



Musical Study Tips

- Write a song, jingle or rap.
- Play appropriate background music as you think about the topic. Try to choose music that represents what you are learning. Quiet classical music has proven to stimulate the emotional center of the brain.

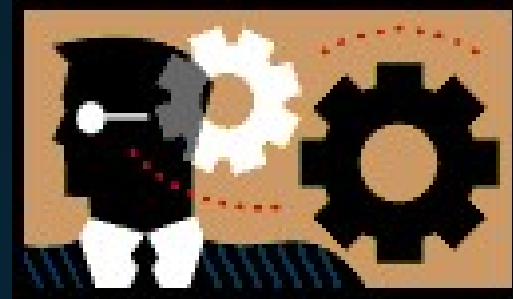


Interpersonal Study Tips

- Discuss topic with someone else.
- Teach what you are learning to someone else.
- Compare notes with someone else taking the course.



Intrapersonal Study Tips



- Look for something of personal significance in whatever you are studying.
- Try to answer questions about why it matters to you and how you can use the information.

Naturalist Study Tips



- What are the environmental implications of what you are learning?
- Has it any implication for conservation of resources?
- Will it help or hinder social fairness?
- Does it have anything to say on solving any of the major social problems of our times?



Naturalist Study Tips



- Does it help you better understand the mind of individuals or social behavior?
- Does it exploit or harm anyone or anything else?
- Does it guide you to any action or social purpose.



Visual study techniques

- Create learning maps.
- Color highlight new ideas.
- Write down what is heard.
- Prepare graphs and diagrams.



Auditory study techniques

- Ask a lot of questions.
- Read aloud dramatically—perhaps even with an accent, and use audiocassettes to record and listen to lectures or to record and listen to notes you read.



Physical study techniques

- Practice a skill as soon as it is learned—hands-on experience.
- Walk around while reading.
- Take notes on post-it notes and arrange the ideas on a large surface.
- Take notes on postcards and then arrange the topics so that they make better sense to you or make new relationships.



Physical study techniques

- Make notes by paraphrasing the material instead of just taking notes on what the author or teacher is saying.
- Let the information sink in while you take a walk or go do something else.
- Use a buddy to help you study.