

# Multiple Intelligences

How to help students learn how to learn.

# Who came up with Multiple Intelligences?

- Howard Gardner a Harvard psychologist in 1983 presented the theory.
- Believed that children should be evaluated based upon what they can do, not what they can't.
- Gardner defined intelligence as a problem-solving ability or a skill to create something of worth.

*Diverse Learners in the Mainstream Classroom (2008)*

- One of Gardner's theory was to prevent interventions that harmed children's development

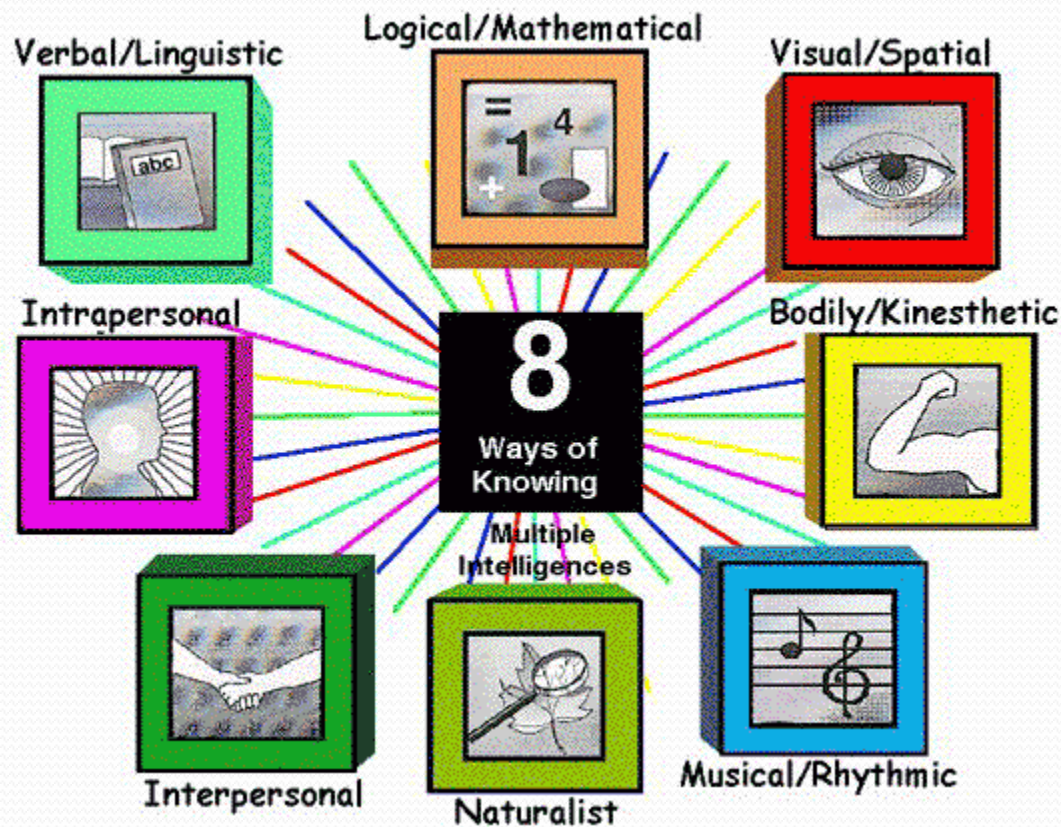
*Diverse Learners in the Mainstream Classroom (2008)*

# What is Multiple Intelligences?

- Multiple Intelligences explains how people learn in different forms.
- “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)*
- Multiple Intelligences allows for material to be explained in numerous ways that allows for students to learn in a manner most beneficial to them.

# Multiple Intelligences



# Multiple Intelligences

- Define each intelligence.
- What it looks like in the classroom.
- What an assessment may look like.
- What can a teacher do to help students.



# Verbal-Linguistic Intelligence (Word Smart)

- Strong ability to use words and language in learning
- Learns languages quickly
- Remembers what has been **READ** and **SAID**
- Enjoys reading, writing, and speaking



# Verbal-Linguistic Intelligence in the classroom

- Completing crossword puzzles with vocabulary words.
- Writing feature articles for the school newspaper.
- Using digital resources such as electronic libraries, desktop publishing, word games, and word processing.
- Creating poems for a class poetry book.
- Telling a story to the class.
- Participating in debates.



# Verbal-Linguistic Intelligence Assessment

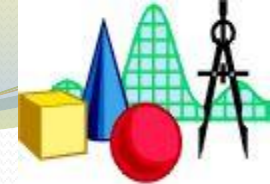
- Ask students to write in a journal regularly.
- Give oral exams and/or essay tests.
- Emphasize creative writing – have students write poems, plays, and stories.

# The Effects of Teachers' Learning Styles on Teaching



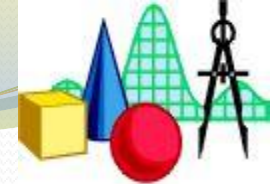
Learning Style	Effect on Teaching
<b>The Verbal/Linguistic Learner</b>	This teacher stresses a curriculum based on language—reading, writing, and speaking.

Watch for students that have a more concrete learning style.



# Logical-Mathematical Intelligence (Math Smart)

- Students enjoy working with numbers.
- Easily interpret data and analyze abstract patterns.
- Well-developed ability to reason and are good at chess and computer programming.
- They think in terms of cause and effect.



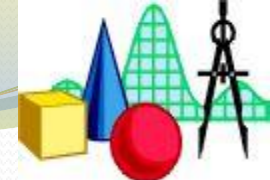
# Logical-Mathematical Intelligence in the classroom

- Playing math games like Mancala, dominoes, chess, checkers, and Monopoly.
- Searching for patterns in the classroom, school, outdoors, and home.
- Conducting experiments to demonstrate science concepts.
- Using science tool kits for science programs.
- Designing alphabetic and numeric codes.
- Making up analogies.



# Logical-Mathematical Intelligence Assessment

- Assign science labs and experiments.
- Have students complete logic problems and games.



# The Effects of Teachers' Learning Styles on Teaching

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

You may need to intentionally focus on stressing students to be artistic and to think in large leaps.



# Visual/Spatial Intelligence (Picture Smart)

- Think and process information in pictures and images.
- They have excellent visual receptive skills and excellent fine motor skills.
- Students with this intelligence use their eyes and hands to make artistic or creatively designed projects.
- Uses images to recall information.
- They can build with Legos, read maps, and put together 1,000-piece jigsaw puzzles.



# Visual/Spatial Intelligence in the classroom

- Taking photographs for assignments and classroom newsletters.
- Using clay or play dough to make objects or represent concepts from content-area lessons.
- Using pictorial models such as flow charts, visual maps, Venn diagrams, and timelines to connect new material to known information.
- Taking notes using concept mapping, mind mapping, and clustering.
- Using maps to study geographical locations discussed in class.
- Illustrating poems for the class poetry book by drawing or using computer software.



# Visual/Spatial Intelligence Assessment

- Invite students to create collages, murals, and posters.
- Encourage students to illustrate their ideas using maps, charts, and graphs.
- Help students use school equipment to make a video or slide show.

# The Effects of Teachers' Learning Styles on Teaching



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

Provide opportunities for students that are word smart and encouragement for those that feel inadequate in their artistic abilities.



# Musical Intelligence (Music Smart)

- Musical students think, feel, and process information primarily through sound.
- They have a superior ability to perceive, compose, and/or perform music.
- Musically smart people constantly hear musical notes in their head.



# Musical Intelligence in the classroom

- Writing their own songs and music about content-area topics.
- Setting a poem to music, and then performing it for the class.
- Incorporating a poem they have written with a melody they already know.
- Listening to music from different historical periods.
- Using rhythm and clapping to memorize math facts and other content-area information.
- Listening to CDs that teach concepts like the alphabet, parts of speech, and states and capitals (i.e., *Schoolhouse Rock!*).



# Musical Intelligence Assessment

- Challenge students to identify and explain patterns in music or poetry.
- Ask students to write new lyrics to familiar melodies or to compose a new song.



# The Effects of Teachers' Learning Styles on Teaching

Learning Style	Effect on Teaching
<b>The Musical/Rhythmic Learner</b>	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.

Remind students that it is okay to not sing in tune with the music, but instead to have fun with the process. You may also want to have words written out for visual learners to any songs you use.



## Bodily-Kinesthetic Intelligence (Body Smart)

- Bodily-kinesthetic students are highly aware of the world through touch and movement.
- There is a special harmony between their bodies and their minds.
- They can control their bodies with grace, expertise, and athleticism.



# Bodily-Kinesthetic Intelligence in the classroom

- Creating costumes for role-playing, skits, or simulations.
- Performing skits or acting out scenes from books or key historical events.
- Playing games like Twister and Simon Says.
- Using charades to act out characters in a book, vocabulary words, animals, or other content-area topics.
- Participating in scavenger hunts, searching for items related to a theme or unit.
- Acting out concepts. For example, for the solar system, "student planets" circle around a "student sun." Students line up appropriately to demonstrate events in a history timeline.
- Participating in movement breaks during the day.
- Using electronic motion-simulation games and hands-on construction kits that interface with computers.



# Bodily-Kinesthetic Intelligence Assessment

- Challenge students to write and perform plays.
- Have students build models or use other hands-on techniques to show what they learned.

# The Effects of Teachers' Learning Styles on Teaching



Learning Style	Effect on Teaching
<b>The Bodily/Kinesthetic Learner</b>	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.

Provide opportunities for students to be able to think activities through first and then respond in a journal afterwards.



# Interpersonal Intelligence (People Smart)

- Students strong in interpersonal intelligence have a natural ability to interact with, relate to, and get along with others effectively.
- They are good leaders.
- They use their insights about others to negotiate, persuade, and obtain information.
- They like to interact with others and usually have lots of friends.



# Interpersonal Intelligence in the classroom

- Working in cooperative groups to design and complete projects.
- Working in pairs to learn math facts.
- Interviewing people with knowledge about content-area topics (such as a veteran to learn about World War II, a lab technician to learn about life science, or a politician to understand the election process).
- Tutoring younger students or classmates.



# Interpersonal Intelligence Assessment

- Stage a classroom debate.
- Have students work collaboratively to brainstorm and prepare a project.



# The Effects of Teachers' Learning Styles on Teaching

Learning Style	Effect on Teaching
<b>The Interpersonal Learner</b>	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, allow for a variety of activities to accommodate various learning styles.

# Intrapersonal Intelligence (Self Smart)

- People with a strong intrapersonal intelligence have a deep awareness of their feelings, ideas, and goals.
- Students with this intelligence usually need time alone to process and create.

# Intrapersonal Intelligence in the classroom

- Writing reflective papers on content-area topics.
- Writing a literary autobiography, reflecting on their reading life.
- Writing goals for the future and planning ways to achieve them.
- Using software that allows them to work alone, such as Decisions, Decisions, a personal choice software, or the Perfect Career, a career choice software.
- Keeping journals or logs throughout the year.
- Making a scrapbook for their poems, papers, and reflections.

# Intrapersonal Intelligence Assessment

- Ask students to identify their own academic strengths and weaknesses.
- Have students think of personal goals and give progress reports.

# The Effects of Teachers' Learning Styles on Teaching

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

Keep in mind that students will need to learn the skill of group work. Provide mentoring and encouragement to the student that enjoys working alone.



# Naturalistic Intelligence (Nature Smart)

- This intelligence refers to a person's natural interest in the environment.
- These people enjoy being in nature and want to protect it from pollution.
- Students with strong naturalistic intelligence easily recognize and categorize plants, animals, and rocks.



# Naturalistic Intelligence in the classroom

- Caring for classroom plants.
- Caring for classroom pets.
- Sorting and classifying natural objects, such as leaves and rocks.
- Researching animal habitats.
- Observing natural surroundings.
- Organizing or participating in park/playground clean-ups, recycling drives, and beautification projects.



# Naturalistic Intelligence Assessment

- Ask students to keep environmental journals and to share their observations.
- Invite students to lead classmates on a nature walk to point out interesting plants and animals they found during independent study.



# The Effects of Teachers' Learning Styles on Teaching

<b>Learning Style</b>	<b>Effect on Teaching</b>
<b>The Naturalistic Learner</b>	This teacher will enjoy outdoor learning opportunities and science activities. Great for the kinesthetic learner.

Be aware of student's allergies, start with small excursions and explorations teaching students about the environment.

# What Is Your Learning Strength?

Take the following free online quiz and discover what your multiple intelligence strength is. If you would like at the beginning of the school year give it to your students. Then find out what is the best way to teach your students.

<http://literacyworks.org/mi/assessment/findyourstrengths.html>

[http://www.bgfl.org/bgfl/custom/resources\\_ftp/client\\_ftp/ks3/ict/multiple\\_int/questions/choose\\_lang.cfm](http://www.bgfl.org/bgfl/custom/resources_ftp/client_ftp/ks3/ict/multiple_int/questions/choose_lang.cfm)

# What Is Your Learning Strength?

If you would like students to investigate and learn on their own, you may want to explore this webquest designed for 3rd, 4th, and 5<sup>th</sup> grade students.

[http://www.swsd.k12.pa.us/~christina\\_owens/Webquest\\_GetSmart.html](http://www.swsd.k12.pa.us/~christina_owens/Webquest_GetSmart.html)



# True Colors

True Colors is another way to identify various learning styles in the classroom. Based upon behavior styles, true colors outlines strengths and fondness in individuals that may impact their career choice.

# True Colors

To find out more information about True Colors follow the link below to a free quiz.

<http://www.truecolorscareer.com/quiz.asp>

If you would like more information about True colors you may visit the following website.

<http://www.truecolorscareer.com/>

# References:

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