
Multiple Intelligences in International TESOL

— Riah Werner, July 2017 —
WorldTeach Global Education Fellowship

Multiple Intelligences

Howard Gardner, 1983 & 1999

1. Linguistic/Verbal
 2. Visual/Spatial
 3. Kinesthetic
 4. Interpersonal
 5. Intrapersonal
 6. Logical/Mathematical
 7. Musical
 8. Naturalist
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Multiple Intelligences

Theory developed by Howard Gardner in 1983 (updated to include Naturalist intelligence in 1999) which holds that there are multiple ways of learning, knowing and being smart, rather than just a general intelligence (IQ)

Intelligences are based in neuroscientific research and valued across cultures

Everyone has all 8 intelligences in different proportions

Verbal/Linguistic

The ability to decode meaning and use words orally and in writing.

Word smart

- Reading
- Writing
- Stories
- Speeches
- Brainstorming
- Note-taking
- Summaries

Visual/Spatial

The ability to understand and perceive spatial relationships and aspects such as shape, color and size.

Picture smart

- Drawing
- Pictures
- Charts and maps
- Coloring
- Building things
- Crafts
- Visualization
- Sentence strips
- Videos

Kinesthetic

The ability to use movements and gestures, when interacting, to express feelings and ideas using the body.

Body smart

- Movement
- Total Physical Response
- Gestures
- Mime
- Role Plays/Skits
- Physical games
- Choreography
- Language Experience Approach
- Field trips

Interpersonal

The ability to understand and interact with other people, establishing rapport and empathy.

People smart

- Interviews
- Dialogues
- Discussions
- Pair work
- Group work
- Cooperative learning
- Peer teaching
- Peer editing
- Pen pals
- Games

Intrapersonal

The ability to reflect upon who we are and how to cope with personal feelings.

Self smart

- Reflection
- Journals
- Self-assessments
- Personal connections
- Individual projects
- Learning logs
- Goal setting

Logical/Mathematical

The ability to use numbers, analyze data, understand abstract symbols, graphs, sequences and cause-effect relations.

Number smart

- Puzzles
- Logic games
- Inductive learning
- Rules and formulas
- Problem solving
- Ranking and sequencing
- Venn diagrams
- Math problems
- Quantifying learning

Musical

The ability to feel music and rhythm.

Music smart

- Songs
- Chants
- Rhythms
- Listening to music
- Playing instruments
- Writing lyrics

Naturalist

The ability to cope with the world outside of the classroom.

Nature smart

- Categorizing
- Field trips
- Natural objects
- Connections to nature
- Environmentalism

Globalization of MI

1. Singapore
 2. Turkey
 3. Iran
-

MI in Singapore: Globalization

Singapore is dependent on human capital to be globally competitive

1997 Asian Financial Crisis lead to educational initiatives, including MI

Recognition of diversity as a resource: less required content, alternate assessments, lower student-teacher ratios, increase in specialized schools

Teacher training workshops on MI theory and practice and “Learning Circles” for teachers to plan and reflect on MI lessons

Students in MI classes improved 9% in listening and speaking, 5% in writing and 1% in composition compared to students in non-MI classes (Chew 2009)

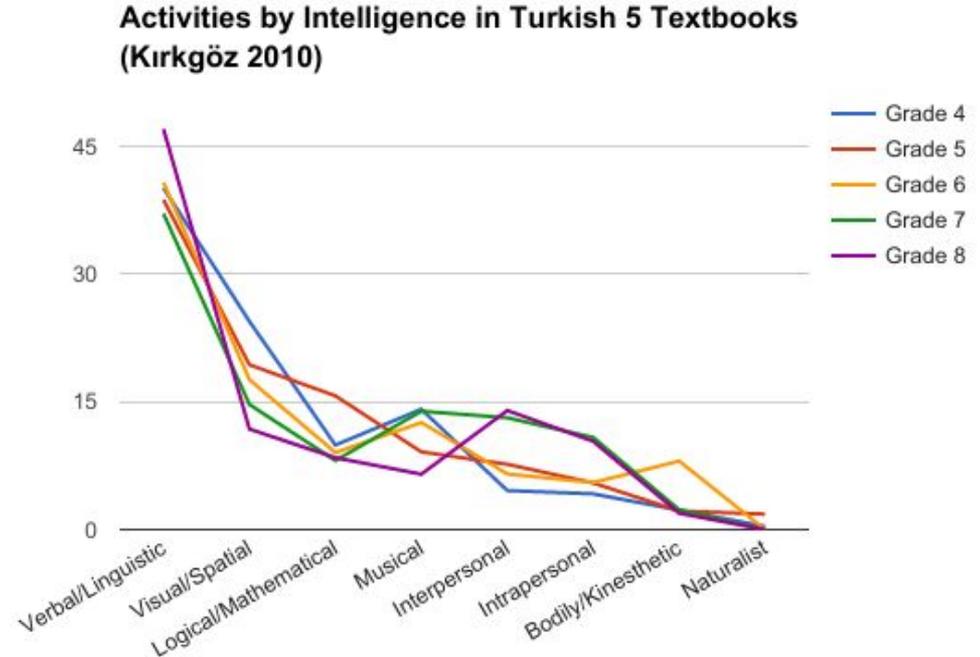
MI in Turkey: Textbook Activities

Turkey adopted MI in 2005

A 2010 study (Kirkgöz) examined 5 textbooks for grades 4-8 and classified each activity according to its primary intelligence

Linguistic intelligence dominated with 38.68-46.98% of activities, followed by Visual/Spatial intelligence with 11.8-24.42%

Naturalist intelligence was not in 3 textbooks and only had 0.38-1.82% in the other 2



MI in Iran: Research Findings

MI and General Self-Efficacy (Noruzi & Qocayeva 2014)

- Self-efficacy is a belief in one's ability to perform a task successfully
- Overall significant relationship between MI and general self-efficacy
- Positive relationships between each MI and general self-efficacy

MI and Vocabulary Learning Strategies (VLS) (Ahour & Abdi 2015)

- MIs correlate with 2 or more VLS, except Naturalist (0) and Logical (1)
- Interpersonal and Linguistic intelligences predict VLS use for males
- Kinesthetic and Naturalist intelligences predict VLS use for females

MI and Writing Ability (Sadeghi & Farzizadeh 2012)

- No significant relationship between MIs and writing ability

MI in Ecuador

1. Curriculum
 2. Textbooks
 3. Classroom Practice
 4. Research
-

MI in the Ecuadorian English Curriculum

Ecuador started “The Project to Strengthen English Teaching” in 2012, which

- Required teachers to have B2 proficiency
- Expects students to reach B1 by the end of high school
- Implemented a new curriculum
- Designed a new series of textbooks, which include MI activities at the high school level

The 2012 curriculum adopted a learner-centered methodology

While MI Theory was not mentioned in the body of the document, Gardner’s book *Multiple Intelligences Go to School* is cited in the references

MI in Ecuadorian Textbooks

Secondary school teachers' guides categorize activities by intelligence using symbols

Primary school textbooks do not reference Multiple Intelligences

Intelligence	Definition	Activities
L Linguistic	The ability to decode meaning and use words orally and in writing.	<ul style="list-style-type: none">• Discussions and mini-debates• Reading and writing stories, reports, reviews e-mails and• Inferring grammar rules
M Logical and Mathematical	The ability to use numbers, analyze data, understand abstract symbols, graphs, sequences and cause-effect relations.	<ul style="list-style-type: none">• Classifying• Sequencing• Problem-solving activities
K Bodily/ Kinesthetic	The ability to use movements and gestures, when interacting, to express feelings and ideas using the body.	<ul style="list-style-type: none">• Role plays• Games and contests
I Interpersonal	The ability to understand and interact with other people, establishing rapport and empathy.	<ul style="list-style-type: none">• Projects• Group work• Games and contests
I Intrapersonal	The ability to reflect upon who we are and how to cope with personal feelings.	<ul style="list-style-type: none">• Reflections• Self-evaluations• Talking about community and personal issues
M Musical	The ability to feel music and rhythm.	<ul style="list-style-type: none">• Tapping the rhythm• Listening to stress, rhythm and music
N Naturalist	The ability to cope with the world outside of the classroom.	<ul style="list-style-type: none">• Campaigns to become environmentally sensitive
V Visual and Spatial	The ability to understand and perceive spatial relationships and aspects such as shape, color and size.	<ul style="list-style-type: none">• Drawing and interpreting maps and graphs• Doing crossword puzzles

MI in Ecuadorian Textbooks

9th grade includes a lesson on Multiple Intelligences

Only 6 of the 8 intelligences are included

The target language for the unit is using the modal verb “can” to talk about abilities

Lesson 1
Multiple Intelligences

1. Listen and complete with the verbs in the Word Bank.

Logical-Mathematical Intelligence
These people are good with numbers. They can do calculations **quickly**. They can *solve* problems using logic.

Interpersonal Intelligence
These people can interact with others **easily**. They can understand other people's emotions. They can in public.

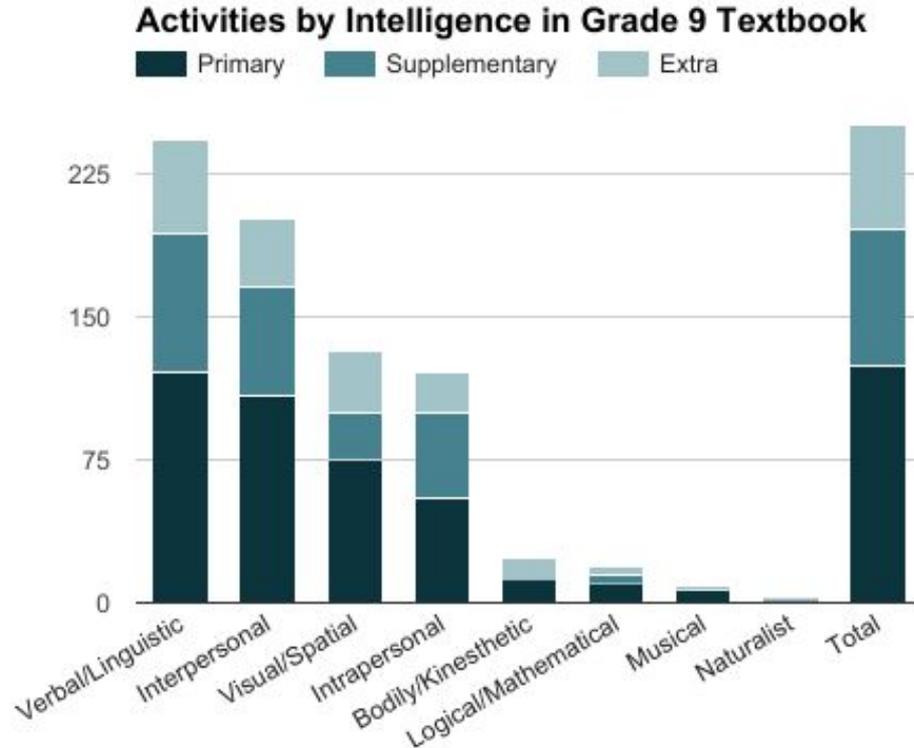
Musical Intelligence
These people are good at music. They can and play musical instruments. They can learn using songs and melodies.

Visual-Spatial Intelligence
These people are good with images. They can and draw impressive paintings. They can design useful objects.

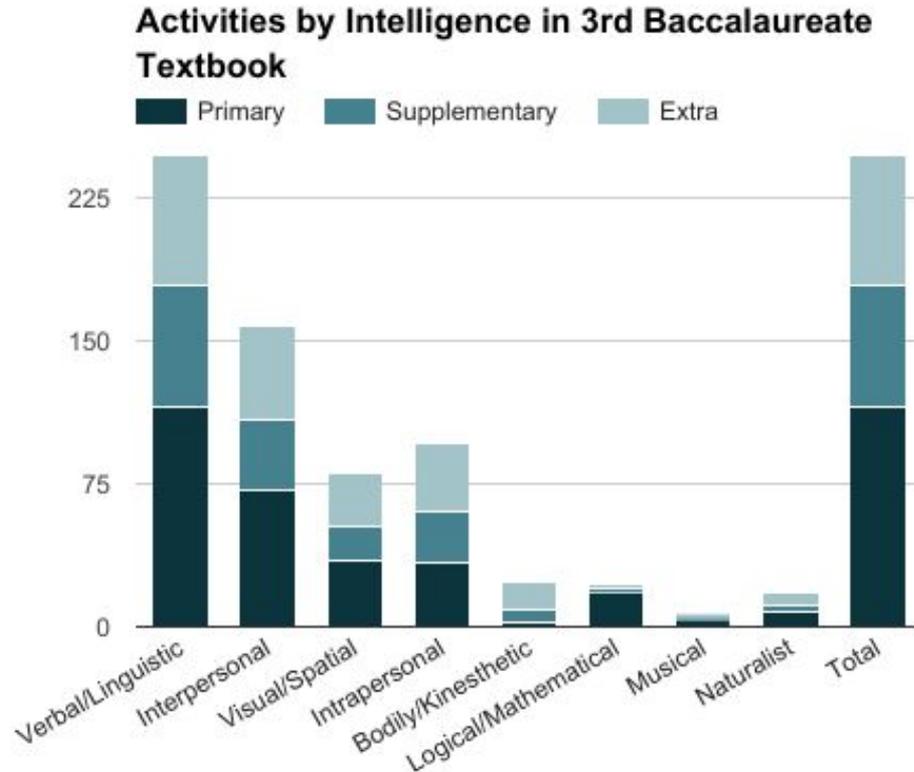
Verbal Intelligence
These people are good with words. They can write beautiful poems. They can languages **easily**. They can tell funny stories.

Kinesthetic Intelligence
These people can their bodies **very well**. They can act and dance. They can be good athletes.

MI in Ecuadorian Textbooks



MI in Ecuadorian Textbooks



MI in Ecuadorian Textbooks

Most lessons in the teacher's guides focused heavily on Linguistic and Interpersonal intelligences, followed by Visual and Intrapersonal intelligences

Most units contained no Naturalist or Musical activities and Kinesthetic intelligence was often relegated to the "extra activities"

Many of the labelled intelligences in the textbook seem like a stretch, like classifying matching activities where students write letters in a box as Kinesthetic intelligence or labelling all listening activities as Musical

MI Activities in Ecuadorian Classrooms

Ecuadorian English classes tend to be teacher-centered with little student participation and teachers are often unfamiliar with different methods

A 2013 study (Leon Loza) found that even when teachers claimed to be using communicative or natural approaches, classroom observations revealed that they were actually using the Grammar Translation approach in their classes

Teachers also claimed to use group work, but were not observed doing so

Despite the inclusion of MI activities in the secondary school teachers guides, the teachers I observed at my school were not using the suggested activities

MI Research from the University of Cuenca

Role Play to Enhance Speaking Skills in 10th Grade (González & Prieto 2013)

- Role plays only used Kinesthetic and Verbal Intelligences
- Students' self-assessed speaking skills improved

Developing the Reading Skills of 5th Graders (Arévalo & Pedroza 2013)

- Readings about Spatial, Musical and Naturalist intelligences
- Students scores increased from 8.48 to 14.48 from the pre- to post tests

Strategies for Language Learning in 9-10 Year Olds (Astudillo & Astudillo 2010)

- 7 lesson plans incorporating 10 intelligences (with Moral and Existential)
- Teachers found MI activities successful, but only used 8 intelligences

The MI Project

La Unidad Educativa Carlos
Cisneros, 2017

1. Context
 2. Aims
 3. Activities
 4. Results
-

The Context: UE Carlos Cisneros, Riobamba

7th grade at a public school

132 students (82 male, 50 female, ages 11-12)

Beginners with 7 months of previous English instruction

3 classes (43-45 students in each class)

8 lessons over the course of 4 weeks (8 hours class time)

Due to quirks in the school calendar, one class (7C) only had 5 lessons during the project (6 hours class time) and was not able to complete the full unit.

The Aims

Goal

Improve student learning and deepen retention by integrating MI activities into a unit on rooms in the house

Strategies

Create a unit that include activities that target all 8 intelligences to teach names of rooms and questions and answers about locations

Measure impact by comparing test scores from the 1st and 2nd units (before and after the MI project implementation)

The Activities

Visual/Spatial 1

Use pictures to elicit the names of the rooms

Tape pictures to the board to create the floor plan of a house

Have students draw floor plans of their own houses and label the rooms

Target language: bedroom, bathroom, kitchen, living room, dining room, office, hall, balcony, this is the _____

Kinesthetic 1

Ask several students to come to the front of the room

Position students to demonstrate the meaning of next to, between and opposite

Reinforce meaning using hand gestures

Ask students to describe where their classmates are

Have more students come to the front and ask them to stand next to, opposite or between their classmates

Target language: next to, between, opposite

Interpersonal

Demonstrate asking questions about the locations of rooms, using floor plan of the teacher's house on the board

Elicit student responses about locations of rooms in the teacher's house

Divide students into pairs

Students use floor plans of their own houses and ask their peers where different rooms are

Target language: Where's the ____? It's next to/between/opposite the ____.

Visual/Spatial 2

Using pictures of individual rooms, create a floor plan for the teacher's house on the board and describe the location of the rooms

Give students 2 minutes to remember the locations of the rooms

Remove all but one picture

Show a room and ask the students where to put it, following their instructions exactly

When the students say the correct location, tape the picture to the board

Target language: It's next to/between/opposite the _____.

Intrapersonal

Tell students you are thinking of your favorite room, describe the location and ask students to tell you which room it is

Ask students to think of their own favorite room and write clues to describe where it is

Extensions: Have students describe the activities they do in their favorite room, ask them to explain why they like that room (in Spanish if necessary), or have them read their clues to another student who guesses which it is

Target language: It's next to/between/opposite the _____.

Kinesthetic 2

Show a picture of a room and ask the students what activities they do there

Have the students demonstrate the actions and list them on the board under each room

Say an action and have all the students demonstrate it

Do an action and have the students tell you the verb for it, then the room

Say the name of a room and have students demonstrate appropriate actions

Target language: sleep, eat, cook, study, take a shower, relax, etc.

Logical/Mathematical

Scramble the letters in the rooms and write the names on the board

Ask the students what is on the board

Have students to unscramble the letters and write the names of the rooms

Alternate activity: Create a logic puzzle and have students label the rooms on a blank floor plan by deducing their locations

Target language: names of rooms

Verbal/Linguistic 1

Write a paragraph on the board describing your daily routine, with blanks for the rooms

Have students read the paragraph and fill in the blanks

I wake up in the bedroom. I walk down the hall and brush my teeth in the bathroom. I return to the bedroom and get dressed. I go to the kitchen and prepare my breakfast. I eat in the dining room. I get my books from the office and go to school. After school, I sit and listen to music in the living room. I go out on the balcony and look at the city.

Target language: actions and names of rooms

Musical

Teach the students a song and have them sing it

Where's the kitchen? Where's the kitchen?

It's right here! It's right here!

It's next to the office. It's next to the office.

Here it is! Here it is!

Target language: questions and answers, here it is

Naturalist

Write the names of rooms on slips of paper and have the students sort them into categories based on their similarities

Encourage the class to find an arrangement where every room is part of a grouping

Ask the students to explain why they grouped the rooms together (using Spanish if necessary)

Target language: names of rooms and actions

Verbal/Linguistic 2

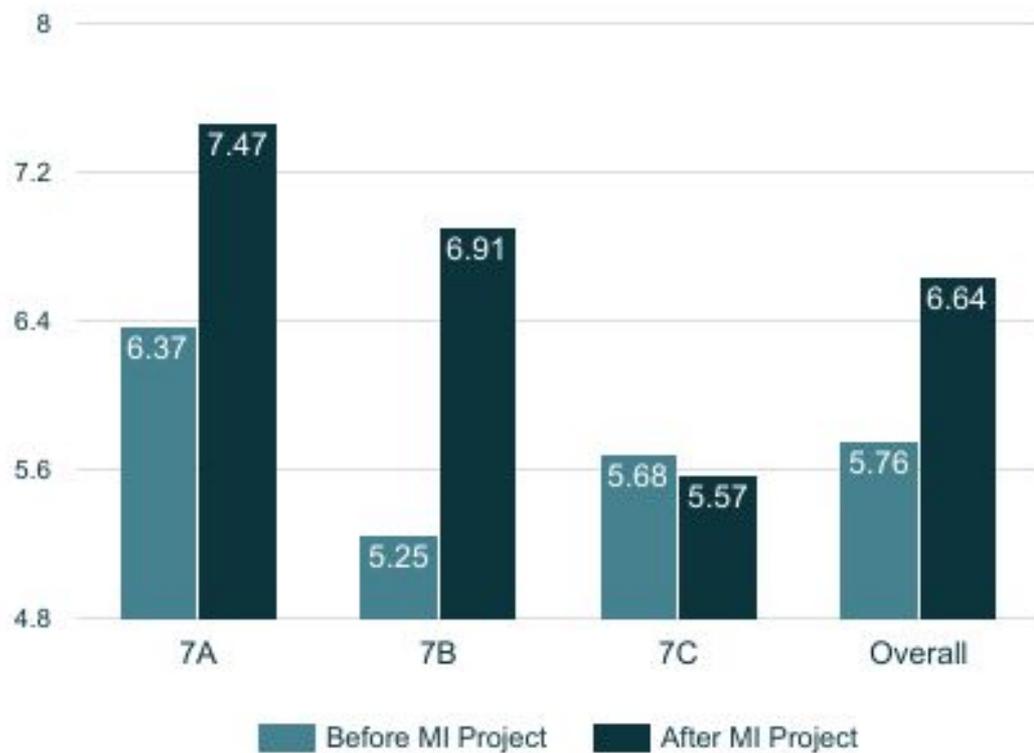
Draw a floorplan on the board and give students mini whiteboards and dry erase markers

Point to a room and ask students to write it and hold up their answer

Write questions and answers about the locations of rooms on the board, with blanks for next to/opposite/between, and have students write and show their answers

Target language: correct spelling of rooms, next to, opposite and between

The Results



+ 0.88

average student test score improvement (out of 10 points)
after MI project implementation

+ 1.38

average student test score improvement (out of 10 points)
in classes that completed all 8 hours of the unit

Reflections

I created the most activities for Verbal/Linguistic, Visual/Spatial and Kinesthetic intelligences, which correspond to A/V/K learning styles

I had the hardest time integrating Naturalist intelligence, which seems more connected to content as opposed to method of learning compared to the other intelligences (a problem the textbook writers also faced)

If I were to teach this unit again, I would create a logic puzzle for the Logical/Mathematical intelligence and expand upon the Intrapersonal activity

Using Spanish was important to help students establish initial knowledge and create deeper connections with what they already know

Recommendations

Think about the *methods* of learning for each intelligence, not just the content

Make sure to include all 8 intelligences

Give yourself plenty of time to create the activities for the intelligences that come less naturally or are most different from your typical teaching methods

Recognize that not all students will respond equally to all the activities

Plan the progression of activities so that repeated intelligences are spread out throughout the unit

Let the students use their first language where necessary

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