Howard Gardner's Multiple Intelligences

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Intelligence

Some theorists believe that intelligence is a basic ability that affects performance on all cognitively oriented tasks. Consequently, an “intelligent” person will do well in computing mathematical problems, in analysing poetry, in taking history essay examinations, and in solving riddles.

Evidence for this position comes from correlational evaluations of intelligence tests.

J.P. Guilford (1967) and Howard Gardner (1983) are the most prominent proponents of multiple cognitive abilities.

Guilford has suggested that there are three (3) basic categories, or faces of intellect:

- **mental operations – the process of thinking;**
- **contents – what we think about;**
- **products – the end results of our thinking.**

Mental operations are further divided into five different subcategories:

- cognition – recognising old information and discovering new;
- convergent thinking – where there is only one answer or solution;
- divergent thinking – used when many answers may be appropriate;
- evaluation – decisions about how good, accurate, or suitable something is;
- memory – remembering previous information given or experienced.

Guilford’s model of intelligence has several advantages as well as one major disadvantage.

The model broadens our view of the nature of intelligence by adding such factors as those related to social judgement (the evaluation of others’ behaviour) and creativity (divergent thinking).

Certainly, human mental abilities must be complex, but Guilford’s model may be too complex to serve as a guide for predicting behaviour in real situations or for planning instruction.

In addition the problem of explaining the persistent correlations among all these “separate” mental abilities remains.

Multiple Intelligences
Howard Gardner has proposed a “theory of multiple intelligences” in which he suggests that people possess at least seven (eight since 1997) different forms of intelligence.

He claims that the capacity of individuals to acquire and advance knowledge reflects the priorities and opportunities that society presents in a cultural domain.

In this framework, intelligence is seen as a flexible, culturally dependent construct and as such it reflects a social constructivist perspective.

Each of the seven intelligences, listed below, are characterised by core components such as sensitivity to the sounds, rhythms, and meanings of words and capacities to discern and respond appropriately to the moods, temperaments, motivations and desires of other people.

*An example of this is:*

“a surgeon who needs both the acuity of spatial intelligence to guide the scalpel and the dexterity of the bodily kinaesthetic intelligence to handle it.”

The Multiple Intelligences are not subject specific and can be related to many different learning areas.

Gardner’s own definitions of the Intelligences are seen below :-

1. **Linguistic Intelligency:**

   ![Linguistic Intelligence](image)

   Linguistic intelligence is the capacity to use language, your native language, and perhaps other languages, to express what’s on your mind and to understand other people. Poets really specialise in linguistic intelligence, but any kind of writer, orator, speaker, lawyer, or a person for whom language is an important stock in trade highlights linguistic intelligence.

2. **Logical-Mathematical Intelligency:**
People with a highly developed logical-mathematical intelligence understand the underlying principles of some kind of a causal system, the way a scientist or a logician does; or can manipulate numbers, quantities, and operations, the way a mathematician does.

3. Visual spatial Intelligency:

Visual spatial intelligence refers to the ability to represent the spatial world internally in your mind—the way a sailor or aeroplane pilot navigates the large spatial world, or the way a chess player or sculptor represents a more circumscribed spatial world. Spatial intelligence can be used in the arts or in the sciences. If you are spatially intelligent and oriented toward the arts, you are more likely to become a painter or a sculptor or an architect than, say, a musician or a writer. Similarly, certain sciences like anatomy or topology emphasise spatial intelligence.

4. Bodily kinaesthetic Intelligency:
Bodily kinaesthetic intelligence is the capacity to use your whole body or parts of your body—your hand, your fingers, your arms—to solve a problem, make something, or put on some kind of a production. The most evident examples are people in athletics or the performing arts, particularly dance or acting.

5. Musical Intelligency:
Musical intelligence is the capacity to think in music, to be able to hear patterns, recognise them, remember them, and perhaps manipulate them. People who have a strong musical intelligence don’t just remember music easily—they can’t get it out of their minds, it’s so omnipresent. Now, some people will say, “Yes, music is important, but it’s a talent, not an intelligence.” And I say, “Fine, let’s call it a talent.” But, then we have to leave the word intelligent out of all discussions of human abilities. You know, Mozart was damned smart!

6. Interpersonal Intelligence:

Interpersonal intelligence is understanding other people. It’s an ability we all need, but is at a premium if you are a teacher, clinician, salesperson, or politician. Anybody who deals with other people has to be skilled in the interpersonal sphere.

7. Intrapersonal Intelligence:
Intrapersonal intelligence refers to having an understanding of yourself, of knowing who you are, what you can do, what you want to do, how you react to things, which things to avoid, and which things to gravitate toward. We are drawn to people who have a good understanding of themselves because those people tend not to screw up. They tend to know what they can do. They tend to know what they can’t do. And they tend to know where to go if they need help.

8. Naturalist Intelligency:

Natural intelligence designates the human ability to discriminate among living things (plants, animals) as well as sensitivity to other features of the natural world (clouds, rock configurations). This ability was clearly of value in our evolutionary past as hunters, gatherers, and farmers; it continues to be central in such roles as botanist or chef. I also speculate that much of our consumer society exploits the naturalist intelligences, which can be mobilised in the discrimination among cars, sneakers, kinds of makeup, and the like. The kind of pattern recognition valued in certain of the sciences may also draw upon naturalist intelligence.

Gardner’s view of intelligences affects the way in which we teach in our classrooms. He challenges our ideas of what is intelligent behaviour, in particular, the emphasis in schools on the development of verbal and mathematical abilities of children to the exclusion of a broader range of intelligent behaviours.

The essentials of a multiple intelligence perspective for education:

For teachers

- Present material to be learnt in authentic environments.
- Encourage all children to develop competencies across all intelligences.
- Utilise mentoring and apprenticeships with experts in the area of development.
- Develop an interdisciplinary curriculum to facilitate the interconnections between the intelligences.
• Encourage the cooperation of parents and community in students’ education.
• Ground education in the cultural institutions and practices of our society

**Implications for assessment**

• Integrate curriculum and assessment.
• Be flexible in assessment practices to allow individuals to demonstrate their various competencies.
• Develop authentic assessments.
• Develop alternative assessments such as portfolios and work samples.
• Develop intrinsically interesting assessments.
• Set fair assessments that do not depend on other competencies as intermediaries.

Below is an example of Spelling Activities based on Gardner’s Multiple Intelligences: Credited to Debbie Draper, Williamstown Primary School, South Australia

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**Verbal Linguistic:**
Select words from the text
Say them – Look – Say – Cover – Write – Check
Make – crosswords – wonderwords – jumbled words
Add – endings – prefixes – suffixes
Dictionary work – alphabetical order

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**Logical Mathematical:**
Write your words in code
Do word webs
Identify patterns in your list words
Rank your words in terms of – length – difficulty
Classify your words in several different ways

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**Visual/Spatial:**
Draw the words – illustrate the meaning
Write the word in fancy lettering styles
Play “Pictionary”
Arrange your words into – chains – ladders
Draw the words as they sound

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**Body Kinaesthetic:**
Act out the words
Play charades
Say your words in sign language – deaf alphabet
Dance out the meaning of the word
Clap out the syllables of the words

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**Musical/Rhythmic:**
Tap out the syllables
Create a rap incorporating the list words
Learn Morse code and tap out the words
Write a song and sing the words
Play the sound of the words on a musical instrument

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**Interpersonal:**
Work with a partner to say/spell words
Do mimes of list words
Form peer coaching teams to help learn words
Play word games in small groups
Games – Scrabble – Memory – Hangman – Boggle – Up Words

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**Intrapersonal:**
Look at your spelling work – do a P.M.I.
Set goals for improving one aspect of your work
Think about the ways you learn best – what helps/hinders you?
How do you feel about school subjects? Where do you rate spelling?
look back over your spelling assignments – do a self-evaluation