

# Gardner's theory on multiple intelligences

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Howard Gardner's theory of Multiple Intelligences utilizes aspects of cognitive and developmental psychology, anthropology, and sociology to explain the human Intellect. Although Gardner had been working towards the concept of Multiple Intelligences for many years prior, the theory was introduced in 1983, with Gardner's book, *Frames of Mind*. Originally, the theory accounted for seven separate intelligences. Subsequently, with the publishing of Gardner's *Intelligence Referred* in 1999, two more intelligences were added to the list. The intelligences are Verbal/Linguistic, Logical/Mathematical, Visual/Spatial, Bodily-Kinesthesia, Musical, Interpersonal, Interpersonal, Naturalistic, and Existential. Intelligence, term usually referring to a general mental capability to reason, solve problems, think abstractly, learn and understand new material, and profit from past experience. Intelligence can be measured by many different kinds of tasks. Likewise, this ability is expressed in many aspects of a person's life. Intelligence draws on a variety of mental processes, including memory, learning, perception, decision-making, thinking, and reasoning.

**Verbal/Linguistic Intelligence** Verbal/Linguistic intelligence refers to an individual's ability to understand and manipulate words and languages. Everyone is thought to possess this intelligence at some level. This includes reading, writing, speaking, and other forms of verbal and written communication. Teachers can enhance their students' verbal/linguistic intelligence by having them keep journals, play word games, and by encouraging discussion. People with strong rhetorical and oratory skills such as poets, authors, and attorneys exhibit strong Linguistic intelligence.

Linguistic intelligence and Logical/Mathematical Intelligence have been highly valued in education and learning environments. An example who possesses this was Martin Luther King, Jr & T. S. Eliot. 2.

**Logical/Mathematical Intelligence** Logical/Mathematical intelligence refers to an individual's ability to do things with data: collect, and organize, analyze and interpret, conclude and predict. Individuals strong in this intelligence see patterns and relationships. These individuals are oriented toward thinking: inductive and deductive logic, numeration, and abstract patterns.

They would be a contemplative problem solver; one who likes to play strategy games and to solve mathematical problems. Being strong in this intelligence often implies great scientific ability. This is the kind of intelligence studied and documented by Piaget. Teachers can strengthen this intelligence by encouraging the use of computer programming languages, critical-thinking activities, linear outlining, Paginating cognitive stretching exercises, science-fiction scenarios, logic puzzles, and through the use of logical/sequential presentation of subject matter.

Some real life samples people who are gifted with this Intelligence are Albert Einstein, Niels Bohr, and John Dewey. 3. **Visual/Spatial Intelligence** model.

Individuals with strength in this area depend on visual thinking and are very imaginative. People with this kind of intelligence tend to learn most readily from visual presentations such as movies, pictures, videos, and demonstrations using models and props. They like to draw, paint, or sculpt their ideas and often express their feelings and moods through art. These individuals often daydream, imagine and pretend.

They are good at reading diagrams and maps and enjoy solving mazes ND Jigsaw puzzles. Teachers can foster this intelligence by utilizing charts, graphs, diagrams, graphic organizers, videotapes, color, art activities, doodling, microscopes and computer graphics software. It could be characterized as right-brain activity. Pablo Picasso & Bobby Fischer are some examples of people gifted with this intelligence. 4. Bodily/Kinesthesia

**Intelligence** Bodily/Kinesthesia intelligence refers to people who process information through the sensations they feel in their bodies.

These people like to move around, touch the people they are talking to and act things out. They are good at small and large muscle skills; they enjoy all types of sports and physical activities. They often express themselves through dance. Teachers may encourage growth in this area of intelligence through the use of touching, feeling, movement, improvisation, "hands-on" activities, permission to squirm and wiggle, facial expressions and physical relaxation exercises. Some examples of people who are gifted with this intelligence are Michael Jordan and Jim Carrey. . **Musical Intelligence** Musical intelligence refers to the ability to understand, create, and interpret musical itches, timbre, rhythm, and tones and the capability to compose music.

Teachers can integrate activities into their lessons that encourage students' musical intelligence by playing music for the class and assigning tasks that involve students creating lyrics about the material being taught. Composers and instrumentalists are individuals with strength in this area. Wolfgang Amadeus Mozart and Louis Armstrong are examples. 6.

Interpersonal Intelligence Although Gardner classifies interpersonal and interpersonal intelligences separately, there is a lot of interplay between the two and they are often grouped together. Interpersonal intelligence is the ability to interpret and respond to the moods, emotions, motivations, and actions of others. Interpersonal intelligence also requires good communication and interaction skills, and the ability show empathy towards the feelings of other individuals. Teachers can encourage the growth of Interpersonal Intelligences by designing lessons that include group work and by planning cooperative learning activities.

Counselors and social workers are professions that require strength in this area. Some examples of people with this intelligence include Gandhi, Ronald Reagan, and Bill Clinton. . Interpersonal Intelligence Interpersonal Intelligence, simply put, is the ability to know oneself. It is an internalized version of Interpersonal Intelligence. To exhibit strength in Interpersonal Intelligence, an individual must be able to understand their own emotions, motivations, and be aware of their own strengths and weaknesses.

Teachers can assign reflective activities, such as Journaling to awaken students' Interpersonal Intelligence. Its important to note that this intelligence involves the use of all others. An individual should tap into their other intelligences to completely express their ND Frederick Douglass are examples of individuals who exhibited strong Interpersonal Intelligence in their lifetimes. 8. Naturalist Intelligence Naturalistic intelligence is seen in someone who recognizes and classifies plants, animals, and minerals including a mastery of taxonomies.

They are holistic thinkers who recognize specimens and value the unusual. They are aware of species such as the flora and fauna around them. They notice natural and artificial taxonomies such as dinosaurs to algae and cars to clothes. Teachers can best foster this intelligence by using relationships among systems of species, and classification activities. Encourage the study of relationships such as patterns and order, and compare-and-contrast sets of groups or look at connections to real life and science issues. Charles Darwin and John Emir are examples of people gifted in this way. . Existential Intelligence There is a ninth intelligence that has yet to experience full acceptance by educators in the classroom. This is Existential intelligence, which encompasses the ability to pose and ponder questions regarding the existence including life and death. This could be in the domain of philosophers and religious leaders. Benefits of Multiple Intelligences Using Multiple Intelligences theory in the classroom has many benefits: ; As teacher and learner you realize that there are many ways to be " smart" ; All forms of intelligence are equally celebrated.

By having students create work that is displayed to parents and other members of the community, your school could see more parent and community involvement. ; A sense of increased self-worth may be seen as students build on their strengths and work towards becoming an expert in certain areas ; Students may develop strong problem solving skills that they can use real life situations Learning Styles The term " learning styles" is commonly used throughout various educational fields and therefore, has many connotations.

In general, it refers to the uniqueness of how each learner receives and processes new information through their senses. The National Association of Secondary School Principals defines learning style as, " the composite of characteristic cognitive, affective, and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment. " Other phrases are used interchangeably with learning styles. Some include perceptual styles, learning modalities, and learning preferences.

Each person is born with certain preferences toward particular styles, but culture, experience, and development influence these preferences. Once a person's learning style is ascertained, accommodations can be made to increase academic achievement and creativity, as well as improve attitudes toward learning. The Dunn and Dunn Learning Styles Model difficult information and ideas. The majority of us are most confident and successful when we approach difficult tasks by using our strengths.

The Dunn and Dunn Learning Style Model indicates a range of variables proven to influence the achievements of individual learners from kindergarten age to adulthood. Each learner has his or her own unique combination of preferences. Some preferences may be strong, in which case the learner will benefit significantly if the need is addressed when he or she is learning challenging content. Others preferences may be moderate - worth addressing if learning isn't progressing smoothly. For some variables, no preference may be indicated.

The learner's ability to engage with the work and to achieve success may depend on extraneous factors or his/her level of interest in the subject - or it may be that that particular variable has no real bearing on the learner's ability to concentrate and study. Dunn and Dunn: School-Based Learning Styles One of the oldest and most widely used approaches to learning styles is that proposed by Rata and Kenneth Dunn(1978, AAA, Bibb, and Dunn, 1986). Through their work in schools, they observed distinct differences in the ways students responded to instructional materials.

Some liked to learn alone, while others preferred learning in groups or from a teacher. Out of this preliminary work, they identified five key dimensions on which student learning styles differed: 1) environmental, 2) emotional support, 3) sociological composition, 4) physiological, and 5) psychological elements. 1. Environment The environmental strand refers to these elements: lighting, sound temperature, and seating arrangement. The Duns noted that students differed in terms of their definition of an ideal place to learn.

Some wanted a warm, brightly lit place with sees, many people, and much verbal interaction, while others preferred cooler, more subdued lighting with a quieter, more informal environment. Though many teachers believe that they have little control over these elements, Dunn and Dunn describe how the standard square box of a classroom can be partitioned into separate areas with different environmental climates. 2. Emotional The emotional dimension strand includes the following elements: motivation, persistence,



responsibility, and structure. It centers on the extent to which students are self-directed learners.

At one end of the continuum are self-starters who can be given a long-term project and who monitor and pace themselves until finishing the job. At the other end are students who need considerable support and have to have their assignments in small chunks with periodic due dates. Semester-long projects without periodic checks would be disastrous with these students. Understanding your students' apparent needs for support allows you to design learning experiences that help students succeed and learn more effectively. 3. Sociological Students also differ in how they react to peer interaction.

Some dislike group projects, preferring instead to learn by themselves; others thrive on the companionship and support provided by group work. Still others prefer the more traditional approach of learning from an adult. You can capitalize on these preferences by varying your teaching techniques based on different learning configurations. 4. Physiological Another important dimension identified by the Duns relates to individual element here is learning modality; some of us are visual; others prefer auditory channels. Mobility, or the ability to periodically move around, is another element ere.

Another important element in this dimension is time. Some of us are morning people, while others don't function fully until later in the day. Teachers accommodate this dimension when they set up learning centers that allow student movement. This dimension may be one of the hardest for teachers

to accommodate. What do you do if you teach a class of afternoon people at 7: 45 in the morning? 5. Psychological A fifth, and final learning style dimension is psychological. This dimension refers to the general strategies students use when attacking learning problems.

Some attack hem globally, looking at the big picture, while others prefer to address individual elements of a problem separately. In a similar way, some students jump into problems, figuring things out as they go along, while others are more reflective, planning before beginning. Global learners prefer to work in an environment with soft lighting and informal seating. People with this processing style need breaks, snaking, mobility and sound. Analytic learners prefer to work in an environment with bright light and formal seating. They work best with few or no interruptions, in a quiet environment, and little or no snacking.