



Theory of Multiple Intelligences

from:

Frames of Mind: The Theory of Multiple Intelligences

by Howard Gardner

Gardner's theory argues that intelligence, as it is traditionally defined, does not adequately encompass the wide variety of abilities humans display. The theory suggests that, rather than relying on a uniform curriculum, schools should offer "individual-centered education", with curricula tailored to the needs of each child. (This includes working to help students develop the intelligences they are weaker in.) Gardner believes that the eight intelligences he has identified are independent, in that they develop at different times and to different degrees in different individuals. They are, however, closely related, and many teachers and parents are finding that when an individual becomes more proficient in one area, the whole constellation of intelligence may be enhanced.

For this reason, it is important to encourage children to explore and exercise all of their intelligences. Creating a rich, nurturing, and stimulating environment filled with interesting materials, toys, games, and books lays the foundation for healthier, happier, brighter children. Students who have these kinds of experiences know many ways to learn almost anything!

As ski instructors we need to understand who our student is before we will find much success teaching the student. Using the theory of multiple-intelligences works as both a tool for identifying/understanding our student, and as a tool to facilitate our lesson. In the end we hope to have affected the kinesthetic realm in their skiing ability, but use as many of these avenues as you can to accommodate the whole person.

Following are some characteristics of the different intelligences (The more you understand these intelligences, the easier it is to use them! This works with adults too...):

Linguistic

Verbal-linguistic intelligence has to do with words, spoken or written. People with verbal-linguistic intelligence display a facility with words and languages. They are typically good at reading, writing, telling stories, and memorizing words and dates. They tend to learn best by reading, taking notes, and listening to lectures, and via discussion and debate. They are also frequently skilled at explaining, teaching, and oration or persuasive speaking. Those with verbal-linguistic intelligence learn foreign languages very easily as they have high verbal memory and recall and an ability to understand and manipulate syntax and structure. Careers which suit those with this intelligence include writers, lawyers, philosophers, politicians, and teachers.

Logical-Mathematical

This area has to do with logic, abstractions, inductive and deductive reasoning, and numbers. While it is often assumed that those with this intelligence naturally excel in mathematics, chess, computer programming, and other logical or numerical activities, a more accurate definition places emphasis less on traditional mathematical ability and more reasoning capabilities, abstract pattern recognition, scientific thinking and investigation, and the ability to perform complex calculations. Those who automatically correlate this intelligence with skill in mathematics criticize this intelligence by arguing that logical ability is often more strongly correlated with verbal rather than mathematical ability: for example, the old Analytic section of the Graduate Record Examination correlated more strongly with the Verbal section than the Mathematical. One possibility is that formal, symbolic logic, and strict logic games are under the command of mathematical intelligence, while skills such as fallacy hunting, argument construction, etc. are under the command of verbal intelligence. Careers which suit those with this intelligence include scientists, mathematicians, doctors, and economists.

Spatial

This area has to do with vision and spatial judgment. People with strong visual-spatial intelligence are typically very good at visualizing and mentally manipulating objects. They have a strong visual memory and are often artistically inclined. Those with visual-spatial intelligence also generally have a very good sense of direction and may also have very good hand-eye coordination, although this is normally seen as a characteristic of the bodily-kinesthetic intelligence.

Some critics point out the high correlation between the spatial and mathematical abilities, which seems to disprove the clear separation of the intelligences as Gardner theorizes. Since solving a mathematical problem involves visually manipulating symbols such as numbers, spatial intelligence is involved. A thorough understanding of the two intelligences precludes this criticism, however, as the two intelligences do not precisely conform to the definitions of visual and mathematical abilities. Although they may share certain characteristics, they are easily distinguished by several factors, and there are many with strong logical-mathematical intelligence and weak visual-spatial, and vice versa. Careers which suit those with this intelligence include artists, engineers, and architects.

Bodily-kinesthetic

This area has to do with movement and doing. In this category, people are generally adept at physical activities such as sports or dance and often prefer activities which utilize movement. They may enjoy acting or performing, and in general they are good at building and making things. They often learn best by physically doing something, rather than reading or hearing about it. Those with strong bodily-kinesthetic intelligence seem to use what might be termed muscle memory; i.e., they remember things through their body, rather than through words (verbal memory) or images (visual memory). It requires the skills and dexterity for fine motor movements such as those required for dancing, athletics, surgery, craftmaking, etc. Careers which suit those with this intelligence include athletes, dancers, actors, comedians, builders, and artisans.

Musical

This area has to do with rhythm, music, and hearing. Those who have a high level of musical-rhythmic intelligence display greater sensitivity to sounds, rhythms, tones, and music. They normally have good pitch and may even have absolute pitch, and are able to sing, play musical instruments, and compose music. Since there is a strong aural component to this intelligence, those who are strongest in it may learn best via lecture. In addition, they will often use songs or rhythms to learn and memorize information, and may work best with music playing. Careers which suit those with this intelligence include musicians, singers, conductors, and composers.

Naturalistic

This area has to do with nature, nurturing, and classification. This is the newest of the intelligences and is not as widely accepted as the original seven. Those with it are said to have greater sensitivity to nature and their place within it, the ability to nurture and grow things, and greater ease in caring for, taming, and interacting with animals. They are also good at recognizing and classifying different species. The theory behind this intelligence is often criticized, much like the spiritual or existential intelligence (see below), as it is seen by many is not indicative of an intelligence but rather an interest. Careers which suit those with this intelligence include scientists, naturalists, conservationists, gardeners, and farmers.

Interpersonal

This area has to do with interaction with others. People in this category are usually extroverts and are characterized by their sensitivity to others' moods, feelings, temperaments, and motivations and their ability to cooperate in order to work as part of a group. They communicate effectively and empathize easily with others, and may be either leaders or followers. They typically learn best by working with others and often enjoy discussion and debate. Careers which suit those with this intelligence include politicians, managers, social workers, and diplomats.

Intrapersonal

This area has to do with introspective and self-reflective capacities. Those who are strongest in this intelligence are typically introverts and prefer to work alone. They are usually highly self-aware and capable of understanding their own emotions, goals, and motivations. They often have an affinity for thought-based pursuits such as philosophy. They learn best when allowed to concentrate on the subject by themselves. There is often a high level of perfectionism associated with this intelligence. Careers which suit those with this intelligence include philosophers, psychologists, theologians, and writers.

Other intelligences

Other intelligences have been suggested or explored by Gardner and his colleagues, including spiritual, existential and moral intelligence. Gardner excluded spiritual intelligence due to its failure to meet a number of his criteria. Existential intelligence (the capacity to raise and reflect on philosophical questions about life, death, and ultimate realities) meets most of the criteria with the exception of identifiable areas of the brain that specialize for this faculty. Moral capacities were excluded because they are normative rather than descriptive.

<p>● Verbal/Linguistic Intelligence</p>	<p>Involves reading, writing, speaking, and conversing in one's own or foreign languages. It may be exercised through reading interesting books, playing word board or card games, listening to recordings, using various kinds of computer technology, and participating in conversation and discussions.</p>
<p>● Logical/Mathematical Intelligence</p>	<p>Involves number and computing skills, recognizing patterns and relationships, timeliness and order, and the ability to solve different kinds of problems through logic. It may be exercised through classifying and sequencing activities, playing number and logic games, and solving various kinds of puzzles.</p>
<p>● Visual/Spatial Intelligence</p>	<p>Involves visual perception of the environment, the ability to create and manipulate mental images, and the orientation of the body in space. It may be developed through experiences in the graphic and plastic arts, sharpening observation skills, solving mazes and other spatial tasks, and exercises in imagery and active imagination.</p>
<p>● Bodily/Kinesthetic Intelligence</p>	<p>Involves physical coordination and dexterity, using fine and gross motor skills, and expressing oneself or learning through physical activities. It may be exercised by playing with blocks and other construction materials, dancing, playing various active sports and games, participating in plays or make-believe, and using various kinds of manipulatives to solve problems or to learn.</p>
<p>● Musical Intelligence</p>	<p>Involves understanding and expressing oneself through music and rhythmic movements or dance, or composing, playing, or conducting music. It may be exercised by listening to a variety of recordings, engaging in rhythmic games and activities, and singing, dancing, or playing various instruments.</p>
<p>● Interpersonal Intelligence</p>	<p>Involves understanding how to communicate with and understand other people and how to work collaboratively. It may be exercised through cooperative games, group projects and discussions, multicultural books and materials, and dramatic activities or role-playing.</p>
<p>● Intrapersonal Intelligence</p>	<p>Involves understanding one's inner world of emotions and thoughts, and growing in the ability to control them and work with them consciously. It may be exercised through participating in independent projects, reading illuminating books, journal-writing, imaginative activities and games, and finding quiet places for reflection.</p>
<p>● Naturalist Intelligence</p>	<p>Involves understanding the natural world of plants and animals, noticing their characteristics, and categorizing them; it generally involves keen observation and the ability to classify other things as well. It may be exercised by exploring nature, making collections of objects, studying them, and grouping them.</p>

While the theory of multiple intelligences is a powerful way to think about learning, it's also important to understand the research that supports it. Howard Gardner's Eight Intelligences. The theory of multiple intelligences challenges the idea of a single IQ, where human beings have one central "computer" where intelligence is housed. Howard Gardner, the Harvard professor who originally proposed the theory, says that there are multiple types of human intelligence, each representing different ways of processing information: Verbal-linguistic intelligence refers to an individual's ability to use words and language. The theory of multiple intelligences proposes the differentiation of human intelligence into specific "modalities of intelligence", rather than defining intelligence as a single, general ability. The theory has been criticized by mainstream psychology for its lack of empirical evidence, and its dependence on subjective judgement. According to the theory, an intelligence 'modality' must fulfill eight criteria: potential for brain isolation by brain damage. place in evolutionary history. general intelligence nor the only theory. to conceive of intelligence as pluralistic. Among others, Thorndike (1920; Thorndike, Bregman, Cobb, & Woodyard, 1927) conceived of intelligence as the sum of three parts: abstract intelligence, mechanical intelligence, and social intelligence. For Gardner's own claims. In this chapter, The theory of multiple intelligences 487. however, we focus principally on MI theory and practices as put forth by Gardner.