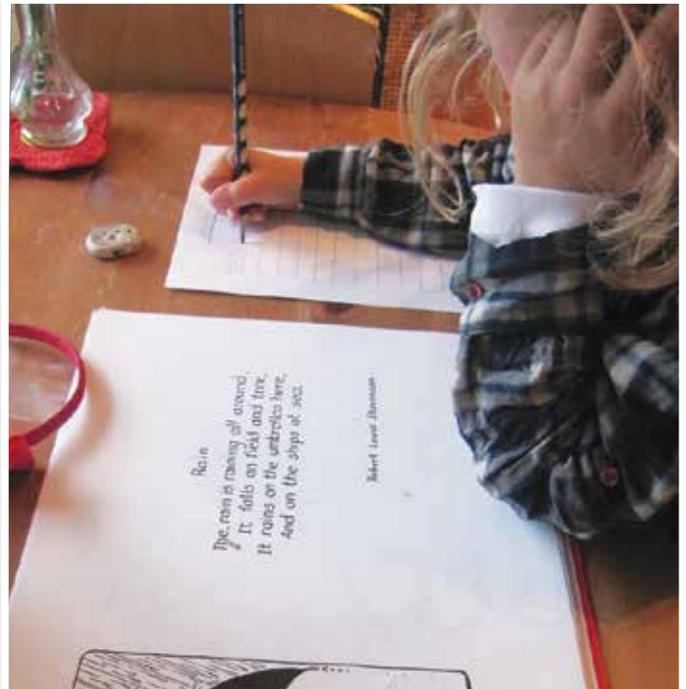


# Introduction to the Eight Intelligences



Inside: Overview of the eight intelligences, In the Montessori School,  
Harmonious Development

# The Eight Intelligences

## Howard Gardner

In the first book *Frames of Mind* (1983), the author Howard Gardner explains that he is seeking to undermine the common notion of intelligence as one general capacity or potential, which every human being possesses, to a greater or lesser extent. He also questions the assumption that you can measure intelligence with standardised IQ tests. This test, developed by the psychologist Alfred Binet, is 95 years old but is still commonly used and the traditional education system is mainly based on the skills tested. The disadvantage to this model is that children are taught a slim part of the linguistic and logical-mathematical intelligence. These were indeed the skills needed for postwar workers, but society has changed dramatically.

Gardner came to the conclusion that people have a "considerable wider range of performances that are valued throughout the world". In order for individuals to become flexible and function well in modern society this range of skills and abilities should be first of all acknowledged and secondly should be further developed by educators.

Intellectual competence, as described by Gardner, is related to problem solving. When an individual encounters a problem or difficulty and has the skills and abilities to find related knowledge and use this to make logical processes or effective products, the prerequisite for Intelligence are present. Factual knowledge is needed to answer questions; it is not a need in itself. Therefore having factual knowledge is not a sign of intelligence. It is about what the person does with that knowledge. Therefore the development of a variety of skills is important. Skills make knowledge useful.

Gardner analysed personalities and came to a classification and concept of multiple intelligences. He refers to these intelligences as ways of knowing and understanding oneself and the world surrounding us and additionally helps create conditions to change it.

His classification helps parents and educators to look for signs of innate precociousness in children and then to help develop these. These innate strengths can be used to 'enter the personality' and develop skills within the other intelligences



that are less obvious within that specific child. Gardner first outlined seven Intelligences that are 'semi-independent ways of solving problems and fashioning products' and then later added the eighth one being Naturalistic Intelligence.

The Intelligences are:

1) Musical Intelligence: These children might often be quietly singing, humming and drumming. They are often discriminating listeners. They might hear sounds that others miss. They have an ear for compositions and harmony. This mental modality is not just a talent, but also a full intelligence. The musical mind grasps subtlety and complexity. By means of making music or just hearing it, it analyses moods, meanings and feelings.



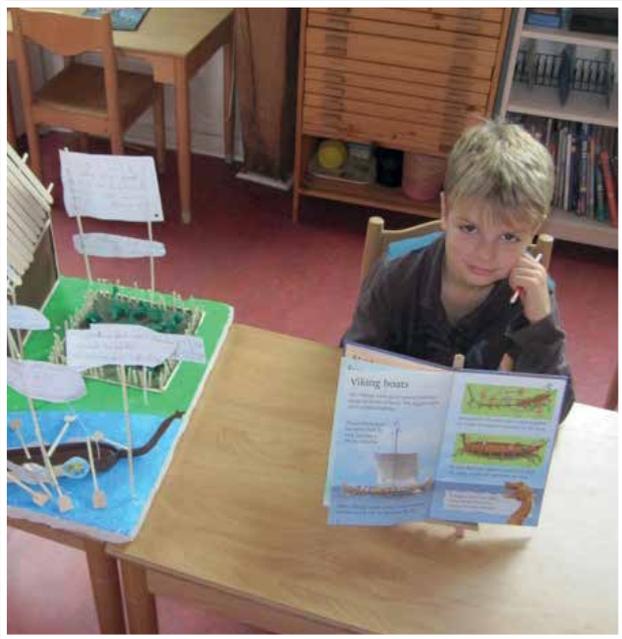
2) Logical-Mathematical Intelligence: These are children who apply logic easily; they are interested in patterns and relationships and reasons behind concepts. They work not only through numbers, symbols and patterns, but also have a strong sense of causes, relationships and series of steps to get to conclusions. This is essentially non-verbal and relates to intuition. They often love brainteasers, strategies and experiments. They try to find the reasons why. This facility finds its use in fields such as the sciences, music, sports, politics and economy.



3) Visual/Spatial Intelligence: People with strengths in this intelligence think in pictures and images. They are strong in physical relationships within shapes, distances, volume, area and colour and are good at three-dimensional thinking. Young children like mazes, puzzles, and Lego constructions. They are often very interested in art and in acquiring all sorts of techniques that can represent what they have observed. Spatial Intelligence is a very good aid to problem solving in many areas such as architecture, music, art, math, technology and engineering.



4) Linguistic Intelligence: Individuals that function best through verbal interaction and that enjoy talking, writing, reading and story telling. They are strong in their mother tongue and interested in poetry, novels, plays and literature. Second language acquisition comes easily and is often combined with interest in linguistic products of related cultures. They usually develop a rich vocabulary and enjoy the nuances of meanings.



5) Interpersonal Intelligence: Individuals who are strong at social relationships and are often leaders amongst their peers. They communicate well and perceive the needs, motivations, emotions and intentions of others. They are good listeners and show empathy for others. The interpersonally strong individuals are good at decision-making processes through consensus, since the opinion of all members of the group counts. They can be very talkative and love to be socially involved in groups.



6) Intrapersonal Intelligence: Individuals who are very aware of their own feelings. They have a good image of 'self', know their values and personal traits. They like to function alone and are reflective in thought. They can appear to be shy and introverted and lack interpersonal and linguistic skills. These individuals are often self-motivated and studious. A student strong in this intelligence can examine his own thought process well and arrive at solutions through research and reflective thought.



7) Bodily-Kinaesthetic Intelligence: Individuals who acquire knowledge through physical involvement. They gain insight, solve problems and integrate knowledge through movement. They are the doers and are often sporty and speedy. They are usually efficient but can be impatient. Hands-on experiences, visualisation and listening to 'gut feelings' are important ways of learning and processing.



Both at school and within the family it is important to recognise the uniqueness of each child. In order to rear successful children, parents cannot expect that their children will be good at the same things that they are good at. The challenge of the educators is to be in tune with the child and help them become whom they are meant to be. Mark Wahl describes it well in his book [Math for Humans](#) (1999) and says we need to be 'tapping processes that are strong and natural in the learner' and additionally educators need to help develop skills within the lesser-developed intelligences.

8) Natural Intelligence: Individuals who feel good outside. They need space and air and enjoy having time by themselves in nature. They have keen observing skills and are very interested in natural phenomena large and small. They are good at analysing, synthesising, understanding and organising patterns within the natural environment. These individuals can be keen researchers and have an eye for detail. At an emotional level, nature provides 'peace of mind'.



# In the Montessori School

In a Montessori classroom, teachers endeavour to help develop all aspects of the child's personality. One cannot do this when children sit still in rows and mostly listen to the teacher. Ken Robinson's TED Talk video named 'Changing Educational Paradigms' explains this beautifully.

In contradiction to all other species, human beings are unique, all different. Nature must have had a reason for that. The education system should not go against this. Children do not need to be formed in batches according to their own age. As a matter of fact, they have nothing to learn of children of the same age, since they are at the same level. Unhealthy competition, intimidation, shyness, lack of interest and motivation can all be consequences of students being treated as 'the same'.

But then what? They need to be able to move, talk, reflect, make music, have conflicts so they need to solve problems, interact, communicate, imagine, visualise and so on. They need to work through all eight intelligences.

Children learn a lot in groups made up of peers of different ages, cultures, languages, personality types and learning styles. When teachers treat differences as richness, interest and respect grow from within.

Within this series of documents each brochure will describe in detail how the different Intelligences are tapped into and developed at the different age ranges within the school.



# Harmonious Development

This introductory article is followed by eight documents, each discussing a different intelligence. The information can assist families in observing which intelligence to tap into, what are the child's strengths and challenges, what is the predominant learning style and how to assist in the development towards a successful human being.

Educators can also use the information to get to know themselves! The children we care for are not necessarily like us. In order to assist appropriately, we might need to go beyond our comfort zone.

And not to forget...the way we function is not the only way.

The information on the eight intelligences can assist in reflecting on the approach at home; the responsibilities given, the freedoms allowed and limits needed. Since children have different 'make-ups', freedoms and boundaries need to be adjusted per child. There is no such thing as treating children fairly when they are treated the same.

Some examples of issues that can lead to solutions with the knowledge of the eight intelligences:

- How much exposure to TV is good for this particular child strong in naturalistic Intelligence?
- What about screen related activity and social networking for my intrapersonally strong child?
- What kind of toys/activities should be available?
- How much dedicated time should I spend with my child?
- Is the level of independence allowed appropriate?
- Is my limit setting technique suitable?
- What do I expect of my child?

The information provided in each chapter is followed by a glimpse into the Montessori classroom. Individualised education makes it possible to help children develop their innate strengths. By tapping into these strengths, the teachers, being aided by a multi-faceted educational environment, can build on the intelligences that are lesser evolved. The child then has the opportunity to develop into a well-rounded, harmonious personality.





**Books by Howard Gardner:**

- Frames of Mind
- Multiple Intelligences
- Five minds for the future
- The unschooled mind
- The disciplined mind
- Creating minds

For more please visit:

[howardgardner.com/books/](http://howardgardner.com/books/)

By Mark Wahl:

Math for Humans

By Edward de Bono:

Intelligence is not enough