

Gardner's theory of multiple intelligences

[Technology](#), [Artificial Intelligence](#)



Theory of multiple Intelligence Intelligence can be defined as the combined or comprehensive capability of an individual to act purposefully, rationally and to manage effectively within the environment (Heckler, 1944).

Intelligence is also conceived as the sum of three parts: abstract, mechanical and social intelligence (Thorner 1920; Thorner, Bergman, Cob, & Woodward, 1927). However, Howard Earl Gardner perceived intelligence as the capacity to solve problems or to fashion products that are valued in one or more cultural setting' (Gardner & Hatch, 1989 as cited in Smith, M.

K. 2002). He then proposed a theory that there are different types of intelligences although; intelligence is often viewed as one's knowledge or logic (Gardner, 2003). He continues stating that each Individual is differed to be proficient at certain intelligences. 'These Intelligences are not exclusive to one another; they all exist in each of us. What differs from person to person is the level of development of each Intelligence. ' (Armstrong, T. , & Welted, R. 2002) For example, a student excels in academics but struggles in co curricular activities.

Therefore, educators should consider an alternate way in their teaching style that connects to most or all of the intelligences. Gardner (1983) initially devised a list of seven intelligences. The first intelligence is verbal-linguistic, where an individual is usually good at reading and writing. They have a high sensitivity in the spoken and written language. The second intelligence, visual-spatial involves those who are capable in perceiving things or objects differently through their eyes, and are able to recognize spatial relationships.

Logical-mathematical intelligence is another intelligence theorized by Gardner, where an individual will be comfortable with numbers, capable to analyse problems and come up with a logical solution. However, for bodily-kinesthesia intelligence entails the muscular movement to solve problems. Individuals with this intelligence are able to coordinate body movements proficiently. Musical Intelligence-the fifth Intelligence listed in Gardner's theory, includes skill in recognizing musical rhythms, pitch and have interpersonal intelligence are sensitive to other people's moods, needs and intentions.

They comprehend the motivations and will usually work and solve conflicts within a group. Whereas for interpersonal intelligence, individuals are able to develop a deep understanding towards themselves. This self-reflective capacity helps predict human reactions to others. After a few following researches, an additional type of intelligence was placed into the original seven intelligences as proposed by Gardner himself. (Gardner 1998) The newest addition, Naturalistic intelligence allows a person to cultivate, classify and recognize the major patterns of plants and animals around one's surroundings.

Gardner has actually considered spiritual, moral and existential intelligence but did not have enough evidence (Gardner 2000). Gardner's theory of multiple intelligences has caused a revolution in the education field all over the world. Educators have been inspired to conduct this theory in classrooms among students, especially 'The theory of multiple intelligences (MI) provides a useful framework for understanding both the basic competencies of all

people as well as the unique strengths of individuals. (Chain, 2004) A brain research using nonrecurring method shows that there is brain activity in the left side of the anterior and posterior cortex and the cerebellum when reforming an auditory task. However, when a mathematical task is presented to the person, different areas of the brain are active. This suggests that different intelligences are maneuvered by different parts of the brain (Poster 2004). Gardner himself has also conducted a research with two groups and discovered that one of the groups, adults who suffer from strokes are still able to accomplish tasks even though they have lost the ability to do other tasks. Gardner 1998) Furthermore, Chain (2004) conducted a research on 133 gifted students to investigate their learning and motional needs by filling out a questionnaire which yielded results that fit the theory. Chain conducted another study between genders and discovered that boys are inclined to report a gain in logical-mathematical intelligence, whereas girls inclined to account a benefit in interpersonal intelligence. (Chain 2006) This proves that each individual possesses a different type of intelligence regardless of one's sex. Although there is evidence supporting Gardener's theory of multiple intelligence, it is still merely a theory.

The major criticism towards Gardener's theory is the lack of empirical evidence. (Waterholes, 2006) questions Gardner that he failed to specify which multiple intelligence is supported by what proof for which neural system or adapted cognition module. Waterholes also stated that Gardner failed to provide evidence to certify the intelligences he theorized because the act of applying Multiple Intelligence theory merely assumes the validity

of the intelligences. Furthermore, Waterholes claimed that Gardener's theory has not gone through any traditional tests requiring pencil and papers.

Moreover, Sternberg disagrees with Gardner as he repose a trichina theory of intelligence that acknowledged analytic, creative, and practical intelligence Sternberg (1985, 1990 as cited in Howard, B. C. , McGee, S. , Shin, N. , & Shih, R. 2001). This differs from Gardener's eight types of intelligence. Researchers declared that the relationship between Gardener's theory of multiple intelligences and I. Q is only positively-correlated, showing that they are categorized under general intelligence. (Brand, 1996; Sternberg, 1983 as cited in Klein, P. , 1997). Attracting parents and increasing tuition fees claiming that their school has a

Multiple Intelligence foundation (Chin, 2006). Gardner has also received various criticism regarding the lack of instructions on how to apply his theory in classes and schools also giving children the impression that they are smart (Willingham 2004; Collins 1998). However, Armstrong argues that the theory was not originally planned by Gardner as an educational model to be applied in the classroom (Armstrong, 2005). In conclusion, although the balance between the pros and cons of this theory is still unsure, it shows a simplistic view on intelligence. Gardener's theory did not fail o impact education reform.

Hence, he is still contributing to society. We are wasting talent in much the same way we would be wasting money if we threw money in a trash can. ' (Sternberg, R. J. , 1998) It is better to realize what we are capable of at an

earlier age, although it is claimed that children will not only leave their multiple intelligence after puberty but instead develop it further (Armstrong, 1994). Gardner's theory of multiple intelligence still needs a lot of research and evidence in order to fully support it. I hope the term 'intelligence' can be defined without any objections in the near future and educators worldwide can fully implement it.