

MultipleIntelligence

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Introduction

The theory of multiple intelligences was proposed by Howard Gardner in 1983 as a model of intelligence that differentiates intelligence into various specific modalities, rather than seeing it as dominated by a single general ability. He argues that there is a wide range of cognitive abilities, and that there are only very weak correlations among them. For example, the theory predicts that a child who learns to multiply easily is not necessarily generally more intelligent than a child who has more difficulty on this task. The child who takes more time to master simple multiplication 1) may best learn to multiply through a different approach, 2) may excel in a field outside of mathematics, or 3) may even be looking at and understanding the multiplication process at a fundamentally deeper level, or perhaps as an entirely different process. Such a fundamentally deeper understanding can result in what looks like slowness and can hide a mathematical intelligence potentially higher than that of a child who quickly memorizes the multiplication table despite a less detailed understanding of the process of multiplication.

The theory has been met with mixed responses. Traditional intelligence tests and psychometrics have generally found high correlations between different tasks and aspects of intelligence, rather than the low correlations which Gardner's theory predicts. Nevertheless many educationalists support the practical value of the approaches suggested by the theory.

Life History of Howard Gardner

Howard Earl Gardner (born July 11, 1943 in Scranton, Pennsylvania) is an American developmental psychologist who is a professor of Cognition and Education at Harvard Graduate School of Education at Harvard University, Senior Director of Harvard Project Zero Language in India www.languageinindia.com

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and author of over twenty books translated into thirty languages. He is the son of Ralph Gardner and Hilde Weilheimer (Hilde Gardner since her marriage to Ralph Gardner). Since 1995, he has been the co-director of the Good Work Project. He is best known for his theory of multiple intelligences. He received the Prince of Asturias Award 2011 in Social Sciences for the development of this theory.

What Are Multiple Intelligences?

Multiple intelligences states not only do human beings have several different ways of learning and processing information, but these methods are relatively independent of one another: leading to multiple "intelligences" as opposed to a general intelligence factor among correlated abilities. Since 1999, Gardner has identified eight intelligences: linguistic, logic-mathematical, musical, spatial, bodily/kinesthetic, interpersonal, intrapersonal, and naturalistic. Gardner is still considering a ninth, or existential intelligence (the intelligence of "big questions"), but has not, as yet, added it. He thinks it will have something to do with seeing what you're working with.

When you hear the word intelligence, the concept of IQ testing may immediately come to mind. Intelligence is often defined as our intellectual potential; something we are born with, something that can be measured and a capacity that is difficult to change. In recent years, however, other views of intelligence have emerged. One such conception is the theory of multiple intelligences proposed by Harvard psychologist Howard Gardner.

This theory suggests that traditional psychometric views of intelligence are too limited. Gardner first outlined his theory in his 1983 book *Frames of Mind: The Theory of Multiple Intelligences*, where he suggested that all people have different kinds of "intelligences."¹ Gardner proposed that there are eight intelligences, and has suggested the possible addition of a ninth known as "existentialist intelligence"².

In order to capture the full range of abilities and talents that people possess, Gardner suggests that people do not have just a intellectual capacity, but have many different intelligences including musical, interpersonal, spatial-visual and linguistic intelligences³

While a person might be particularly strong in a specific area, such as musical intelligence, they most likely possess a range of abilities. For example, an individual might be strong in verbal, musical and naturalistic intelligence.

Gardner's theory has come under criticism from both psychologists and educators. These critics argue that Gardner's definition of intelligence is too broad, and that his eight different "intelligences" simply represent talents, personality traits and abilities. Gardner's theory also suffers from a lack of supporting empirical research⁴.

Howard Gardner's Multiple Intelligence

Gardner articulated several criteria for a behavior to be an intelligence. These were that the intelligences:

1. Potential for brain isolation by brain damage,
2. Place in evolutionary history,
3. Presence of core operations,
4. Susceptibility to encoding (symbolic expression),
5. A distinct developmental progression,
6. The existence of savants, prodigies and other exceptional people,
7. Support from experimental psychology and psychometric findings.

He initially formulated a list of seven intelligences. His listing was provisional. The first two have been typically valued in schools; the next three are usually associated with the arts; and the final two are what Howard Gardner called 'personal intelligences' they are,

Linguistic Intelligence

It involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals. This intelligence includes the ability to effectively use language to express oneself rhetorically or poetically; and language as a means to remember information. Writers, poets, lawyers and speakers are among those that Howard Gardner sees as having high linguistic intelligence.

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Logical-mathematical Intelligence

It consists of the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically. In Howard Gardner's words, it entails the ability to detect patterns, reason deductively and think logically. This intelligence is most often associated with scientific and mathematical thinking.

Musical Intelligence

It involves skill in the performance, composition, and appreciation of musical patterns. It encompasses the capacity to recognize and compose musical pitches, tones, and rhythms. According to Howard Gardner musical intelligence runs in an almost structural parallel to linguistic intelligence.

Bodily-kinesthetic Intelligence

It entails the potential of using one's whole body or parts of the body to solve problems. It is the ability to use mental abilities to coordinate bodily movements. Howard Gardner sees mental and physical activity as related.

Spatial Intelligence

It involves the potential to recognize and use the patterns of wide space and more confined areas.

Interpersonal Intelligence

It is concerned with the capacity to understand the intentions, motivations and desires of other people. It allows people to work effectively with others. Educators, salespeople, religious and political leaders and counselors all need a well-developed interpersonal intelligence.

Intrapersonal Intelligence

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It entails the capacity to understand oneself, to appreciate one's feelings, fears and motivations. In Howard Gardner's view it involves having an effective working model of ourselves, and to be able to use such information to regulate our lives.

Alternative Ways of Thinking

The response to Howard Gardner is paralleled by the adoption of Kolb's model of experiential learning by adult and informal educators. While significant criticism can be made of the formulation it does provide a useful set of questions and 'rules of thumb' to help educators to think about their practice. The way in which Howard Gardner's theory of multiple intelligences has been translated into policy and practice has been very varied. Howard Gardner did not, initially, spell out the implications of his theory for educators in any detail. Subsequently, he has looked more closely at what the theory might mean for schooling practice. From this work three particular aspects of Gardner's thinking need noting here as they allow for hope, and an alternative way of thinking, for those educators who feel out of step with the current, dominant product orientation to curriculum and educational policy.

A Broad Vision of Education

All seven intelligences are needed to live life well. Teachers, therefore, need to attend to all intelligences, not just the first two that have been their tradition concern. As Kornhaber has noted it involves educators opting 'for depth over breadth'. Understanding entails taking knowledge gained in one setting and using it in another. 'Students must have extended opportunities to work on a topic'.

Developing Local and Flexible Programmers.

Howard Gardner's interest in 'deep understanding', performance, exploration and creativity are not easily accommodated within an orientation to the 'delivery' of a detailed curriculum planned outside of the immediate educational context. 'An "MI setting" can be undone if the curriculum is too rigid or if there is but a single form of assessment'. In this respect

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the educational implications of Howard Gardner's work stands in a direct line from the work of John Dewey.

Looking to Morality

'We must figure out how intelligence and morality can work together', Howard Gardner argues, 'to create a world in which a great variety of people will want to live'. While there are considerable benefits to developing understanding in relation to the disciplines, something more is needed.

Additional Intelligences

Since Howard Gardner's original listing of the intelligences in Frames of Mind, there has been a great deal of discussion as to other possible candidates for inclusion. Subsequent research and reflection by Howard Gardner and his colleagues has looked to three particular possibilities: a naturalist intelligence, a spiritual intelligence and an existential intelligence. He has concluded that the first of these 'merits addition to the list of the original seven intelligences'.

Naturalist Intelligence

It enables human beings to recognize, categorize and draw upon certain features of the environment. It 'combines a description of the core ability with a characterization of the role that many cultures value'.

Spiritual Intelligence

It is far more complex. According to Howard Gardner there are problems, for example, around the 'content' of spiritual intelligence, its privileged but unsubstantiated claims with regard to truth value, 'and the need for it to be partially identified through its effect on other people'. It seems more responsible to carve out that area of spirituality closest 'in spirit' to the other intelligences and then, in the sympathetic manner applied to naturalist intelligence, ascertain how this candidate intelligence fares. In doing so, I think it best to put aside the term spiritual, with

its manifest and problematic connotations, and to speak instead of an intelligence that explores the nature of existence in its multifarious guises. Thus, an explicit concern with spiritual or religious matters would be one variety - often the most important variety - of an existential intelligence.

Existential Intelligence

It is a concern with 'ultimate issues', is, thus, the next possibility that Howard Gardner considers - and he argues that it 'scores reasonably well on the criteria'. However, empirical evidence is sparse - and although a ninth intelligence might be attractive, Howard Gardner is not disposed to add it to the list. 'I find the phenomenon perplexing enough and the distance from the other intelligences vast enough to dictate prudence - at least for now'.

Moral Intelligence

In his exploration, he begins by asking whether it is possible to delineate the 'moral domain'. He suggests that it is difficult to come to any consensual definition, but argues that it is possible to come to an understanding that takes exploration forward. Central to a moral domain, Howard Gardner suggests, 'is a concern with those rules, behaviors and attitudes that govern the sanctity of life - in particular, the sanctity of human life and, in many cases, the sanctity of any other living creatures and the world they inhabit'. If we accept the existence of a moral realm is it then possible to speak of moral intelligence? If it 'connotes the adoption of any specific moral code' then Howard Gardner does not find the term moral intelligence acceptable. Furthermore, he argues, researchers and writers have not as yet 'captured the essence of the moral domain as an instance of human intelligence'.

One's Behavior towards Others

As he construe it, the central component in the moral realm or domain is a sense of personal agency and personal stake, a realization that one has an irreducible role with respect to other people and that one's behavior towards others must reflect the results of contextualized

analysis and the exercise of one's will. The fulfillment of key roles certainly requires a range of human intelligences, including personal, linguistic, logical and perhaps existential - but it is fundamentally a statement about the kind of person that has developed to be. It is not, in itself, an intelligence. 'Morality' is then properly a statement about personality, individuality, will, character and, in the happiest cases, about the highest realization of human nature.

Conclusion

While there may be some significant questions and issues around Howard Gardner's notion of multiple intelligences, it still has had utility in education. It has helped a significant number of educators to question their work and to encourage them to look beyond the narrow confines of the dominant discourses of skilling, curriculum, and testing. For example, Mindy Kornhaber and her colleagues at the Project SUMIT (Schools Using Multiple Intelligences Theory) have examined the performance of a number of schools and concluded that there have been significant gains in respect of SATs scores, parental participation, and discipline (with the schools themselves attributing this to MI theory). To the extent that Howard Gardner's multiple intelligences theory has helped educators to reflect on their practice, and given them a basis to broaden their focus and to attend to what might assist people to live their lives well, then it has to be judged a useful addition.

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