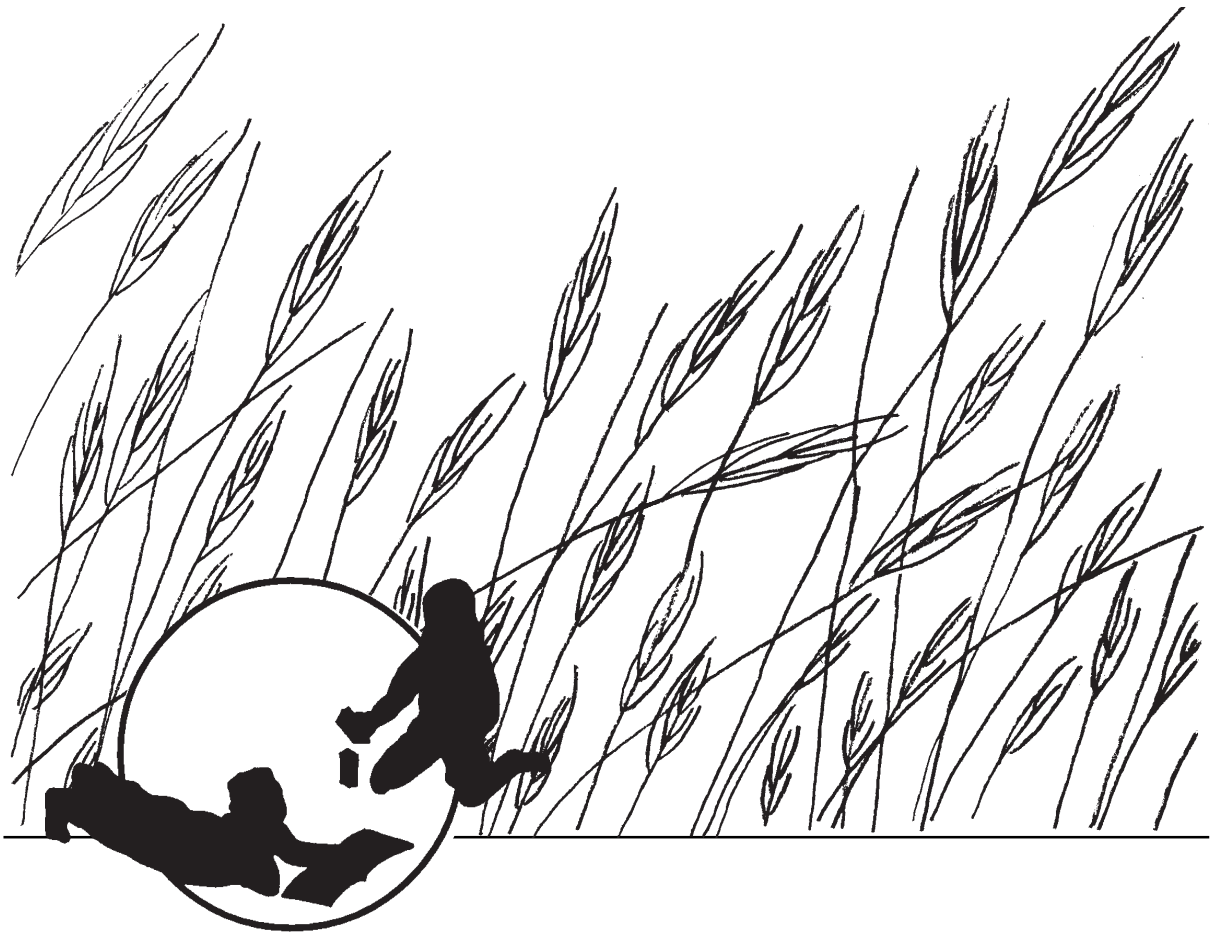


Iowa DE/AEA Early Childhood Network

Fact Sheet

on

Multiple Intelligences



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Multiple Intelligences

History:

Dr. Howard Gardner, a cognitive psychologist at Harvard University, presented a theory of multiple intelligences in 1983 in his book *Frames of Mind*. The goal was to broaden the scope of human potential beyond the confines of an IQ score which had been developed eighty years before. Dr. Gardner and his colleagues at Project Zero spent years studying developmental histories of savants, prodigies, and brain damage cases; they studied human growth as it related to social anthropology and through the philosophies of science, education and language. Dr. Gardner was the first in this group to publish some of the findings of this collaborative research. He focused on a framework of seven different intelligences, gave a list of eight distinct criteria under which each intelligence was defined, and provided a detailed description for each particular intelligence. These are:

- linguistic — the ability to think in words and to use language to express and appreciate complex meanings;
- logical-mathematical - the ability to calculate, quantify, consider propositions and hypotheses, and carry out complex mathematical operations;
- spatial — the ability to think in three dimensions, e.g., mental imagery, spatial reasoning, graphic and artistic skills, and an active imagination;
- bodily-kinesthetic — the capacity to manipulate objects and use a variety of physical skills;
- musical — the capacity to discern pitch, rhythm, timbre, and tone;
- interpersonal — the ability to understand and interact effectively with others; and
- intrapersonal — the capacity to understand oneself.

(the naturalist was added later, Checkley 1997).

The theory of multiple intelligences became a cognitive model that describes a set of human abilities we all share. The key points of MI Theory are:

- each person possesses all seven intelligences;
- most people can develop each intelligence to an adequate level of competency;
- intelligences usually work together in complex ways; and
- there are many ways to be intelligent within each category.

Definition:

Dr. Howard Gardner formulated a definition of intelligence that challenges our old, entrenched concept of intelligence as an I.Q. score. He states, “**An intelligence is the ability to solve problems, or to create products, that are valued within one or more cultural settings.**” (Gardner, 1983, p. x) To elaborate, Gardner sees human intelligence encompassing three components:

- a set of skills that enables an individual to resolve genuine problems encountered in one’s life;
- the ability to create an effective product or offer a service that is of value in one’s culture;
- the potential for finding or creating problems - thereby laying the ground-work for the acquisition of new knowledge.

Applying Multiple Intelligences:

Dr. Gardner admits to being purposefully provocative with his theory. He called each an intelligence instead of a talent or an aptitude to challenge our current beliefs (Weinreich-Haste 1986). Although looking to add to the knowledge of other cognitive psychologists, he was unprepared for the large and mostly positive reaction to the theory among educators.

As Gardner shares his theory with teachers, he is convinced that there is no right way to conduct a multiple intelligences program of education. However, he finds that some current efforts may go against the spirit of MI. For example, not all topics of study can easily be applied to all of the seven intelligences. He says, “. . .it is a waste of effort and time to attempt to do this.” (Gardner, 1995) An over simplification of MI Theory is the use of background music in the classroom to demonstrate musical intelligence. Another misconception is to perceive interpersonal intelligences as a license for cooperative learning or applied to individuals who are extroverted.

Dr. Gardner finds three positive ways in which MI can be used in the schools:

1. Schools should cultivate those skills and capacities that are valued in the community and in the broader society. This may be playing an instrument or doing service work in the community.
2. Schools will try to approach a concept, subject matter, or discipline in a variety of ways. Gardner is convinced that schools are attempting to cover far too much material and that superficial understandings are the result. Time is better spent with key concepts, generative ideas and essential questions which allow students to become thoroughly familiar with these notions and their implications.
3. By far the most exciting is the movement that MI has given toward the personalization of education. “. . .we are not all the same, we do not all have the same kinds of minds” (p. 208). Education is best when differences in intelligences and strengths are taken into account rather than denied or ignored.

When teachers reflect on Howard Gardner’s theory, they realize that education has a very limited range in which students can demonstrate their intellectual capacities. Our educational system may have kept many children from developing their full range of abilities. Thomas Armstrong (1994) states, “At heart, the theory of multiple intelligences calls for nothing short of a fundamental change in the way schools are structured. It delivers to educators every-where the strong message that students...have the right to be provided with experiences that activate and develop all of their intelligences.” (p. 107) Howard Gardner maintains that education should require a climate which challenges students’ minds to the point where it can apply existing knowledge to new ways and into wider contexts.

Howard Gardner’s theory of multiple intelligences steers us away from the framework of “how smart are you,” toward a framework of “how are you smart.” He helps conceptualize a more functional intelligence that could be idealized in a variety of ways for all kinds of learners.



How Educators Have Applied MI Theory:

The number of schools using the MI Theory is growing. Below are examples of two schools using this theory.

The Key School, Indianapolis, Indiana

“The Key School is the most innovative education experiment in the country,” says Howard Gardner (Lytle 1991). The Key School in Indianapolis began as an idea put forward by eight elementary school teachers in 1984 and became a reality in 1987. The unique magnet school has a staff of 20 and a heterogeneous student body of 150 students from kindergarten through grade 6. The student body was 40 percent black and more than 40 percent come from single-parent homes; one-third are eligible for free lunches.

The Key School design is a complex blend of ideas drawn from the works of many scholars: James Macdonald, Gardner, Mihaly Csikszentmihalyi and David Feldman. The Key School curriculum calls for central themes to be shaped by the interaction of different groups...the students and parents have input, area artists, businesses and governmental leaders have influence and the involvement of other cultural institutions and organizations. Other intended priorities help define this unique school: a focus on enrichment rather than remediation, support for intrinsic motivation, extensive use of technology, a second language for all, a fully integrated arts program, extensive use of community resources, and qualitative evaluation of the program and students by means of weekly staff planning and evaluation sessions. (Balaños, 1990)

The New City School, St. Louis, Missouri

The New City School, an independent school with 355 students, begins at age 3 and continues through sixth grade. Drawing from 47 zip codes in the St. Louis area, the school has a 26% minority population and provides financial assistance to approximately 20% of its students. The curricular foundation is the MI Theory. Principal Tom Hoerr and staff, excited about the concepts in Dr. Gardner’s *Frames of Mind*, selected the intrapersonal and interpersonal intelligences as critical factors in determining success of their students. Knowledge of the intrapersonal intelligence helps students know themselves better and reflect on their strengths and weaknesses. “The MI approach is wonderful because it focuses on kids’ strengths,” Dr. Hoerr states. “Most schools miss what’s really important in life. People who get ahead in life do so because of interpersonal qualities: working with others, having confidence, being tenacious.” (NCES, 1994).

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