What does it mean to be an intelligent person? Philosophers, psychologists and everyday people have answered this question using a wide variety of definitions for intelligence since time immemorial. This question has particular significance for someone seeking a career path where the chances for success and satisfaction will be maximized.

In his landmark book, Frames of Mind: The Theory of Multiple Intelligences (1983), Howard Gardner provided extensive research to support his contention that human intelligence is multifaceted rather than singular. Gardner (1999a) redefined intelligence as, “a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture” (p. 34). To qualify as an intelligence in Gardner’s multiple intelligences (MI) theory, each ability has to satisfy a range of criteria: the potential for isolated breakdown of the skill through brain damage; the existence of savants, prodigies, and other exceptional individuals with this ability; support from psychological training studies and from psychometric studies, including correlations across tests; evolutionary plausibility; and a distinct developmental history culminating in a definable set of endstate performances. In
addition, each intelligence has to have an identifiable core operation or set of operations, as well as susceptibility to coding in a symbol system (e.g., language, mathematics, picturing, or musical notes) (Feldman, 1998).

Gardner uses eight basic criteria to identify several different intelligences that all humans have as part of their cerebral endowment. Of course, given that the normal human brain consists of approximately 100 billion neurons and each individual is exposed to an infinite variety of environmental stimuli influencing the course of intellectual growth, each person possesses his / her unique profile of strengths and limitations.

The eight intelligences identified by MI theory are Linguistic, Logical-mathematical, Spatial, Kinesthetic, Musical, Naturalist, Interpersonal and Intrapersonal. Each intelligence has its own memory system with cerebral structures dedicated to processing its specific contents (Gardner, 1993).

Linguistic and logical-mathematical intelligences are most often associated with academic accomplishment. The core features of linguistic intelligence include the ability to use words effectively for reading, writing and speaking. Linguistic skill is important for providing explanations, descriptions and expressiveness. Gardner describes the poet as the epitome of Linguistic ability. Other career fields requiring skill in this area include teaching, journalism, and psychology. Convergent aspects of Linguistic intelligence assessed by standard intelligence tests include vocabulary and reading comprehension. Activities requiring divergent thinking include story telling, persuasive speech, and creative writing.
Logical-mathematical intelligence involves skill in calculations as well as logical reasoning and problem-solving. People strong in this intelligence are usually the ones who are described as being “smart” (e.g., mathematicians, philosophers, logicians). Logical-mathematical intelligence is required for multi-step, complex problem-solving and mental math. Most IQ tests assess a person’s ability to reason and problem-solve quickly, but do not examine divergent and reflective aspects of Logical-mathematical intelligence, such as the identification of novel problems or the generation of new and worthy questions.

Musical intelligence includes sensitivity to pitch, rhythm, and timbre and the emotional aspects of sound as pertaining to the functional areas of musical appreciation, singing, and playing an instrument. A composer requires significant skill in many aspects of this intelligence—especially involving creative musical thinking. On the other hand, musical careers (e.g., instrumentalist, vocalist) generally require more circumscribed abilities that emphasize technical skill rather than creative output.

The Kinesthetic intelligence highlights the ability to use one's body in differentiated ways for both expressive (e.g., dance, acting) and goal-directed activities (e.g., athletics, working with one's hands). Well-developed kinesthetic ability for innovative movement is required for success in professions such as choreography, acting, and directing movies or plays. Precision, control, and agility are the hallmarks of athletes such as karate masters, professional soccer players, and gymnasts.

Spatial intelligence includes the ability to perceive the visual world accurately and to perform transformations and modifications upon one's own initial perceptions via mental imagery. Functional aspects of Spatial intelligence include artistic design, map
reading, and working with objects. Visual artists and interior designers exemplify creative spatial thinking, and a successful architect will need both the creative abilities as well as technical expertise. An automobile mechanic or engineer, on the other hand, does not need creative and artistic abilities to find the solution to a malfunctioning engine.

A person strong in the **Naturalist** intelligence displays empathy, recognition, and understanding for living and natural things (e.g., plants, animals, geology). Careers requiring strong Naturalist skills include farmer, scientist, and animal behaviorist. Skilled scientists use pattern recognition to identify an individual’s species classification, create taxonomies, and understand ecological systems. Empathic understanding is a related ability that allows people to care for and manage the behavior of living entities.

Unique contributions of the MI model to educational theory are the personal intelligences. The **Intrapersonal** and **Interpersonal** intelligences are presented as separate yet related functions of the human brain (especially the frontal lobes). They are described as two sides of the same coin, where Intrapersonal emphasizes self-knowledge and Interpersonal involves understanding other people.

Vital functions of **Intrapersonal** intelligence include accurate self-appraisal, goal setting, self-monitoring/correction, and emotional self-management. Results of research have highlighted the importance of metacognition for learning in the basic academic skills of reading and mathematics. Intrapersonal intelligence is not the same as self-esteem, but it may be a strong factor in promoting self-confidence and effective stress management. Well-developed Intrapersonal intelligence may well be essential to an individual’s sense of satisfaction and success. Careers that require skills in Intrapersonal self-management include pilots, police officers, writers, and teachers.
Interpersonal intelligence also plays a vital function in a person’s sense of well-being. It promotes success in managing relationships with other people. Its two central skills, the ability to notice and make distinctions among other individuals and the ability to recognize the emotions, moods, perspectives, and motivations of people, are known to be critical factors in successful employment. The ability to manage groups of people is required for managerial or leadership positions. Good teachers, counselors, and psychologists need to be adept at understanding a specific individual and then managing that relationship.

Career Implications of MI Theory

There are four very practical implications for applying MI to career planning, selection and development. First, the chances for maximum career development are increased when there is a good match between the job tasks and an individual’s MI strengths. Second, the strength and development of Intrapersonal intelligence is a key factor in positive career selection and advancement. Third, career development will be enhanced when the person’s significant others (parents, teachers, counselors, supervisors, peers, co-workers, etc.) are aware and supportive of the growth of and individual’s particular strengths. Fourth, the negative impact of the person’s weaknesses on career success will be minimized when strengths are emphasized and employed to bridge over any significant deficits.

The MIDAS Assessment

The Multiple Intelligences Developmental Assessment Scales (MIDAS) were developed in 1987 to provide an efficient means for obtaining a rich and descriptive understanding of a person’s multiple intelligences profile. Since then extensive research
around the world has established its reliability and validity along with its practical applications. It has been used for the past 10 years at the university level to assist confused college students to decide upon a major course of study and clarify career options best suited to one’s MI strengths. The MIDAS is also being used widely to assist high school students with enhancing self-knowledge, study skills and career awareness. Teachers also use the MIDAS to better understand the unique educational needs of “at risk”, typical and high ability students.

Further Readings and References


American Educational Research Association, New Orleans, LA.