The nine types of intelligence

War, Intelligence



The Nine Types of Intelligence 1. Naturalist Intelligence (" Nature Smart") Designates the human ability to discriminate among living things (plants, animals) as well as sensitivity to other features of the natural world (clouds, rock configurations). This ability was clearly of value in our evolutionary past as hunters, gatherers, and farmers; it continues to be central in such roles as botanist or chef. It is also speculated that much of our consumer society exploits the naturalist intelligences, which can be mobilized in the discrimination among cars, sneakers, kinds of makeup, and the like. 2. Musical Intelligence (" Musical Smart") Musical intelligence is the capacity to discern pitch, rhythm, timbre, and tone. This intelligence enables us to recognize, create, reproduce, and reflect on music, as demonstrated by composers, conductors, musicians, vocalist, and sensitive listeners. Interestingly, there is often an affective connection between music and the emotions; and mathematical and musical intelligences may share common thinking processes. Young adults with this kind of intelligence are usually singing or drumming to themselves. They are usually quite aware of sounds others may miss. 3. Logical-Mathematical Intelligence (Number/Reasoning Smart) Logical-mathematical intelligence is the ability to calculate, quantify, consider propositions and hypotheses, and carry out complete mathematical operations. It enables us to perceive relationships and connections and to use abstract, symbolic thought; sequential reasoning skills; and inductive and deductive thinking patterns. Logical intelligence is usually well developed in mathematicians, scientists, and detectives. Young adults with lots of logical intelligence are interested in patterns, categories, and relationships. They are drawn to arithmetic problems, strategy games and

experiments. 4. Existential Intelligence Sensitivity and capacity to tackle deep questions about human existence, such as the meaning of life, why do we die, and how did we get here. 5. Interpersonal Intelligence (People Smart") Interpersonal intelligence is the ability to understand and interact effectively with others. It involves effective verbal and nonverbal communication, the ability to note distinctions among others, sensitivity to the moods and temperaments of others, and the ability to entertain multiple perspectives. Teachers, social workers, actors, and politicians all exhibit interpersonal intelligence. Young adults with this kind of intelligence are leaders among their peers, are good at communicating, and seem to understand others' feelings and motives. 6. Bodily-Kinesthetic Intelligence (" Body Smart") Bodily kinesthetic intelligence is the capacity to manipulate objects and use a variety of physical skills. This intelligence also involves a sense of timing and the perfection of skills through mind—body union. Athletes, dancers, surgeons, and craftspeople exhibit well-developed bodily kinesthetic intelligence. 7. Linguistic Intelligence (Word Smart) Linguistic intelligence is the ability to think in words and to use language to express and appreciate complex meanings. Linguistic intelligence allows us to understand the order and meaning of words and to apply meta-linguistic skills to reflect on our use of language. Linguistic intelligence is the most widely shared human competence and is evident in poets, novelists, journalists, and effective public speakers. Young adults with this kind of intelligence enjoy writing, reading, telling stories or doing crossword puzzles. 8. Intra-personal Intelligence (Self Smart") Intra-personal intelligence is the capacity to understand oneself and one's thoughts and feelings, and to use

such knowledge in planning and directioning one's life. Intra-personal intelligence involves not only an appreciation of the self, but also of the human condition. It is evident in psychologist, spiritual leaders, and philosophers. These young adults may be shy. They are very aware of their own feelings and are self-motivated. 9. Spatial Intelligence (" Picture Smart") Spatial intelligence is the ability to think in three dimensions. Core capacities include mental imagery, spatial reasoning, image manipulation, graphic and artistic skills, and an active imagination. Sailors, pilots, sculptors, painters, and architects all exhibit spatial intelligence. Young adults with this kind of intelligence may be fascinated with mazes or jigsaw puzzles, or spend free time drawing or daydreaming. Three Aspects of Intelligence According to the triarchic theory, intelligence has three aspects: analytical, creative, and practical. Analytical intelligence. Analytical intelligence is involved when the components of intelligence are applied to analyze, evaluate, judge, or compare and contrast. It typically is involved in dealing with relatively familiar kinds of problems where the judgments to be made are of a fairly abstract nature. In one study, an attempt was made to identify the information-processing components used to solve analogies such as: A is to B as C is to: D1, D2, D3, D4 (e.g., lawyer is to client as doctor is to [a] nurse, [b] medicine, [c] patient, [d] MD). There is an encoding component, which is used to figure out what each word (e.g., lawyer) means, while the inference component is used to figure out the relation between lawyer and client. Research on the components of human intelligence has shown that although children generally become faster in information processing with age, not all components are executed more

rapidly with age. The encoding component first shows a decrease in processing time with age, and then an increase. Apparently, older children realize that their best strategy is to spend more time in encoding the terms of a problem so that they later will be able to spend less time in making sense of these encodings. Similarly, better reasoners tend to spend relatively more time than do poorer reasoners in global, up-front metacomponential planning when they solve difficult reasoning problems. Poorer reasoners, on the other hand, tend to spend relatively more time in detailed planning as they proceed through a problem. Presumably, the better reasoners recognize that it is better to invest more time up front so as to be able to process a problem more efficiently later on. Creative intelligence. In work with creativeintelligence problems, Robert Sternberg and Todd Lubart asked sixty-three people to create various kinds of products in the realms of writing, art, advertising, and science. For example, in writing, they would be asked to write very short stories, for which the investigators would give them a choice of titles, such as "Beyond the Edge" or "The Octopus's Sneakers." In art, the participants were asked to produce art compositions with titles such as "The Beginning of Time" or "Earth from an Insect's Point of View." Participants created two products in each domain. Sternberg and Lubart found that creativity is relatively, although not wholly, domain-specific. In other words, people are frequently creative in some domains, but not in others. They also found that correlations with conventional ability tests were modest to moderate, demonstrating that tests of creative intelligence measure skills that are largely different from those measured by conventional intelligence tests. Practical intelligence. Practical intelligence

involves individuals applying their abilities to the kinds of problems that confront them in daily life, such as on the job or in the home. Much of the work of Sternberg and his colleagues on practical intelligence has centered on the concept of tacit knowledge. They have defined this construct as what one needs to know, which is often not even verbalized, in order to work effectively in an environment one has not been explicitly taught to work in and that is often not even verbalized. Sternberg and colleagues have measured tacit knowledge using work-related problems one might encounter in a variety of jobs. In a typical tacit-knowledge problem, people are asked to read a story about a problem someone faces, and to then rate, for each statement in a set of statements, how adequate a solution the statement represents. For example, in a measure of tacit knowledge of sales, one of the problems deals with sales of photocopy machines. A relatively inexpensive machine is not moving out of the showroom and has become overstocked. The examinee is asked to rate the quality of various solutions for moving the particular model out of the showroom. Sternberg and his colleagues have found that practical intelligence, as embodied in tacit knowledge, increases with experience, but that it is how one profits, or learns, from experience, rather than experience per se, that results in increases in scores. Some people can work at a job for years and acquire relatively little tacit knowledge. Most importantly, although tests of tacit knowledge typically show no correlation with IQ tests, they predict job performance about as well as, and sometimes better than, IQ tests. In a study in Usenge, Kenya, Sternberg and colleagues were interested in school-age children's ability to adapt to their indigenous environment. They devised a test of practical

intelligence for adaptation to the environment that measured children's informal tacit knowledge of natural herbal medicines that the villagers used to fight various types of infections. The researchers found generally negative correlations between the test of practical intelligence and tests of academic intelligence and school achievement. In other words, people in this context often emphasize practical knowledge at the expense of academic skills in their children's development. In another study, analytical, creative, and practical tests were used to predict mental and physical health among Russian adults. Mental health was measured by widely used paper-and-pencil tests of depression and anxiety, while physical health was measured by self-report. The best predictor of mental and physical health was the practical-intelligence measure, with analytical intelligence being the second-best measure and creative intelligence being the third.