

# Intelligence: Seven ways to look at it

By Jeff Kunerth 2140

OF THE SENTINEL STAFF

The child who plays an instrument well has a talent for music. The kid who excels in sports has a gift for athletics. A student who can draw is artistically inclined.

But a child who does well at taking tests is intelligent.

Intelligence is viewed in American society as the mastery of academics. It embraces reading, writing and arithmetic, but excludes artistic aptitudes. Thus we find children who can draw intricate pictures laboring in classes for learning disabled students because they aren't reading at the same level as other children their age.

But some educators are starting to re-evaluate the concept of intelligence, and with it our ideas about what constitutes a learning disability. Among them is Thomas Armstrong, a former learning disabilities teacher whose book *In Their Own Way* (Jeremy Tarcher Inc./St. Martin's Press, 1987), distinguishes seven types of intelligence and disputes the idea of learning-disabled children.

As a learning-disabilities teacher, Arm-

strong found that many of his students were not unintelligent but simply learned at a slower pace or processed information in a different way than other children. This led him to question the validity of the learning-disability concept, and to explore the idea that there are different types of intelligence that are not being tapped by the schools.

Armstrong prefers the idea of "learning differences" over "learning disabilities." By determining a child's particular type of intelligence, and then developing it as a style of learning, parents and teachers could prevent many students from becoming discouraged with school and turned off to learning.

Armstrong believes the educational system should be adapted to fit the different learning styles of the children rather than trying to change the child to fit the educational system. Parents and teachers should utilize the children's learning strengths instead of focusing on their weaknesses.

But not all learning problems are simply a question of intelligence or learning styles, said Marty Beech, state program specialist for specific learning disabilities.

"There are many different reasons why students have difficulties learning in

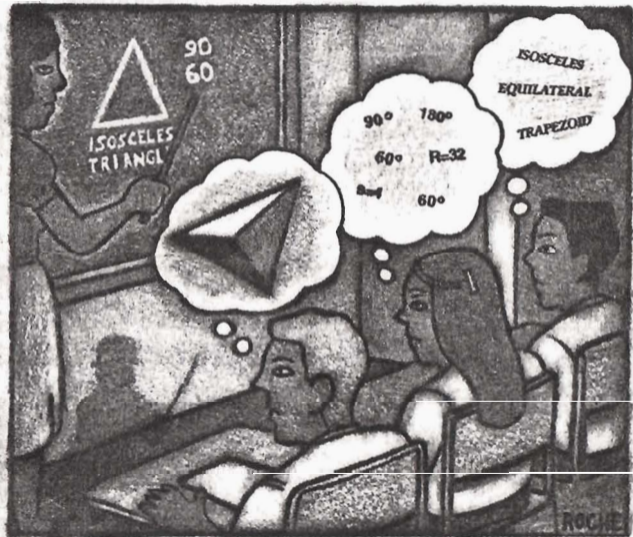
schools. That doesn't preclude the fact [that] there are students whose learning processes are disordered," Beech said. "It's kind of like saying people with vision disorders just have a different way of seeing."

First identified by Harvard University psychologist Howard Gardner in 1983, the seven intelligences used by Armstrong are linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal and intrapersonal.

Linguistic intelligence is defined as the language-based aptitude required of reading and writing. Logical-mathematical intelligence deals with concepts, patterns and symbols. Spatial intelligence uses mental imagery to absorb knowledge. Bodily-kinesthetic intelligence processes knowledge through movement, physical repetition, and "gut" feelings. Interpersonal intelligence is a group leadership type of "street smarts." Intrapersonal intelligence refers to a solitary, intuitive style of learning.

"There are many ways of being intelligent. Musical talent shows intelligent behavior. Being good at athletics shows intelligent behavior," said Armstrong, in a

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telephone interview from his home in Santa Rosa, Calif. "Our culture has unfairly relegated athletic and musical and artistic abilities to the lower rungs of the intelligence hierarchy. We need to give more weight to more intelligences."

The notion that test scores don't accurately measure a person's intelligence is not new. The New York-based Johnson O'Connor Research Foundation has been evaluating people's non-academic aptitudes for nearly 50 years.

The foundation, which tests about 8,000 people a year, has determined that success in school depends upon a few aptitudes, including memorization and the speed by which a child completes assignments. Standardized tests fail to measure the true abilities of students who are not adept at those skills, said Sandra Larson, director of the foundation's Tampa office.

"We firmly believe that school puts some people at a disadvantage," Larson said. "People who lack the natural ability to memorize and get through clerical tasks many times don't get the chance to show their intelligence."

Everyone possesses all seven types of intelligences, and no one uses one type to the exclusion of all others, Armstrong said. But each individual may be inclined more toward one type of intelligence than another, and it is that tendency that can cause problems in the classroom.

An athlete can learn a book of football plays by physically enacting the pass routes or blocking assignments, but can have a hard time memorizing a list of spelling words while sitting at a desk. A child who learns easily in the iso-

lation of his or her room may feel distracted and uncomfortable in a classroom situation.

"Everybody has areas of learning difficulties," said Armstrong. "That is part of what makes us unique as learners."

Because the educational system leans heavily toward instruction that rewards the abilities of the linguistic and logical-mathematical thinkers, Armstrong contends that parents must provide an environment at home that promotes their child's particular learning style.

Linguistically gifted children should be provided lots of books, records and tapes. Children with a logical-mathematical style of learning should have access to strategy games, logical puzzles, science kits and the raw materials for experimentation.

For children with a bodily-kinesthetic intelligence, parents should encourage role play, physical activities, crafts and model-building. Parents of children with musical intelligence should provide them with records, tapes and musical instruments.

Children strong in interpersonal intelligence should be encouraged to help teach other children, join clubs, attend after-school programs and engage in volunteer work. For the children with intrapersonal intelligence, parents should provide a special, private place where they can pursue hobbies and interests in solitude.

While encouraging children to develop their own type of intelligence, parents should make learning activities at home an enjoyable experience. Whenever possible, the activities should be unrelated to school homework.

"It is really important for parents not to put crippling expectations on their children," said Armstrong. "Don't push children too fast into academic learning, and don't put negative or low expectations on your child."