

The Purpose of Intelligence Testing

Intelligence tests are psychological tests that are designed to measure a variety of mental functions, such as reasoning, comprehension, and judgment (Encyclopedia of Mental Disorders, 2011). Intelligence tests are most helpful (and probably most appropriate) when they are used to determine specific skills, abilities, and knowledge that a child either has or does not have. When such information is combined with other evaluation data, it can be directly applied to school programming. Intelligence tests attempt to measure a number of skills, including the following:

- Social judgment
- Level of thinking
- Language skills
- Perceptual organization
- Processing speed
- Spatial abilities
- Common sense
- Long- and short-term memory
- Abstract thinking
- Motor speed
- Word knowledge

Many of these skills depend on the experience, culture, training, and intact verbal abilities of the child being tested. However, responses to items concerning perceptual organization, processing speed, and spatial abilities depend less on experience and verbal skill than on hand–eye coordination and reasoning abilities.

Intelligence tests can yield valuable information about a student's ability to process information. In order to learn, every person must take in, make sense of, store, and retrieve information from memory in an efficient and accurate way. Each of us can process certain kinds of information more easily than others. In school, children need certain skills to function effectively, such as listening attentively so that other movements, sounds, or sights do not distract them. They must be able to understand the words spoken to them. This often requires children to hold multiple pieces of information in memory (e.g., page number, questions to answer) in order to act upon them. For example, they must be able to find the words they need to express themselves and, ultimately, commit these words to paper. This involves another whole series of processing skills such as holding a writing implement, coordinating visual and motor actions, holding information in memory until it can be transferred to paper, transforming sounds into written symbols, and understanding syntax, punctuation, and capitalization rules. They also must be able to interpret the nonverbal messages of others, such as a frown, a smile, a shake of the head. Moreover, they must do all of these things quickly and accurately and often in a setting with many distractions.

A thorough interpretation of an intelligence test can yield information about how effectively a child processes and retrieves information. Most individually administered intelligence tests can determine, at least to some degree, a child's ability to attend, process information quickly, distinguish relevant from less relevant details, put events in sequence, and retrieve words from memory. Ultimately, the goal of intelligence tests is to obtain an idea of the person's intellectual potential (Encyclopedia of Mental Disorders, 2011).