

### **Test of Nonverbal Intelligence, Fourth Edition (TONI-4)**

This language-free intelligence test requires no reading, writing, speaking, or listening on the examinee's part. The fully revised Fourth Edition measures intelligence, aptitude, abstract reasoning, and problem solving. It is completely nonverbal and largely motor free: the test taker merely points, nods, or blinks to indicate the chosen response.

Designed for both children and adults, the TONI-4 can be individually administered in just 15 to 20 minutes. Its language-free format makes it ideal for testing those who have previously been difficult to assess--people with communication disorders, learning disabilities, or problems caused by mental retardation, autism, stroke, head injury, neuropsychological impairment, or disease. It also accommodates the needs of individuals who are not proficient in English.

Test items present a variety of problem-solving tasks, in ascending order of difficulty. Each item incorporates one or more of eight salient characteristics: shape, position, direction, rotation, contiguity, shading, size, and movement. The abstract, figural content of these items, along with the elimination of language, reduces the cultural loading of the test. Performance is not affected by prior information or exposure. Administration instructions are provided in English as well as Spanish, French, German, Chinese, Vietnamese, Korean, and Tagalog.

The Fourth Edition was standardized on a nationally representative sample of more than 2,200 people, aged 6 through 89, with norms stratified by age, gender, race, ethnicity, geographic location, and SES (based on family income and educational attainment). New reliability and validity data are provided for the entire norm group and for specific subgroups. The TONI-4 was analyzed for bias at both item and test levels. Item difficulty was compared across demographic variables, and item curve characteristics were determined. Potential bias was found to be insignificant, and floor effects were eliminated.

Backed by decades of research establishing its reliability and validity, the TONI-4 offers both sound psychometrics and quick, convenient administration. This popular nonverbal assessment is highly useful in educational, neuropsychological, forensic, and research contexts. Because it is available in two equivalent forms, the TONI-4 is ideal for progress monitoring as well as pre- and posttesting.

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#### **Wording:**

The index score for the TONI-4 has a distribution with a mean of 100 and standard deviation of 15 – a distribution chosen because it is widely used in other tests of intellectual abilities. An average to high index score (i.e., 90 and above) indicates that the person tested has reasoning and problem-solving skills consistent with or better than his or her age mates. These people can see logical and abstract relationships, can reason without words, consult mental puzzles that involve complex elements, and can form meaningful associations between objects and designs. Usually, people with high scores are well-connected subjects.

A low index score (i.e., below 90) indicates that the person is performing below age expectations. Depending upon how far below average their scores are, the person tested can be expected to have trouble managing nonverbal information, organizing spatially oriented material, and mastering abstract properties of visual symbols. Usually, people with low scores

struggle academically in school and, again, depending on how low their scores are, may have difficulty competing in some occupational and professional endeavors.

People are relatively consistent in their cognitive abilities. Individuals who are good (or poor) in one cognitive ability tended good (or poor) in other cognitive abilities. Therefore, an individual's TONI-4 index score should closely resemble his or her Full Scale, Verbal Scale, and Performance Scale quotients on the Wechsler Adult Intelligence Scale – Fourth Edition.