David Wechsler

(1896-1981)

Psychologist

Definition of Intelligence

“Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment (Wechsler, 1944, p. 3).”

Major Contributions

- Developed several assessments, including two widely-used intelligence scales:
  - Wechsler Intelligence Scale for Children (WISC)
  - Wechsler Adult Intelligence Scale (WAIS)
- Verbal and Performance Tasks
- Established the use of the deviation IQ, or “DQ” (1939)

Ideas and Interests

David Wechsler is best known for developing several widely-used intelligence tests, including the Wechsler Intelligence Scale for Children (WISC) and the Wechsler Adult Intelligence Scale (WAIS). Updated versions of these tests remain popular in the 21st century and new tests founded on Wechsler’s work continue to be developed by other researchers. Wechsler is also notable for his use of the deviation quotient (DQ), a technical innovation that replaced the use of mental ages in computing IQ scores. This greatly improved the utility of normative comparisons when intelligence tests are used with adult examinees (Edwards, 1994).

When the United States entered the World War I, David Wechsler was finishing up his master’s degree in psychology. He joined the Army, and while awaiting his induction Wechsler volunteered to score the Army Alpha test, one of the two group intelligence tests developed by the Committee on the Psychological Examination of Recruits, and it is here that he met Yerkes and Thorndike. Later Wechsler became an individual psychological examiner, and was charged with administering the Stanford-Binet to recruits who had performed poorly on the group intelligence tests (Fancher, 1985). In 1918 the Army sent him to London to work with Spearman and Pearson.

Wechsler eventually concluded that Spearman’s theory of general intelligence (g) was too narrow. Unlike Spearman, Wechsler viewed intelligence as an effect rather than a cause, and asserted that non-intellective factors, such as personality, contribute to the development of each person’s intelligence. His personal definition, “Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment” reflects this broader view (Edwards, 1994; Wechsler, 1940).

The Wechsler Intelligence Scale for Children—Fourth Edition® (WISC-IV®) was published in 2003. It has been normed for use with children aged six through sixteen years and eleven months. It yields a full-scale IQ score and four index scores: Verbal Comprehension (e.g. similarities, vocabulary and comprehension activities), Perceptual Reasoning (e.g. matrix reasoning, block design and picture concepts). Working
Memory (e.g., letter-number sequencing and digit-span) and Processing Speed (e.g., symbol search and coding). The *Wechsler Adult Intelligence Scale—3rd Edition* (WAIS-III®) was published in 1997, and it can be used with adults between the ages of 16 and 89 years. Several other Wechsler tests are also available to qualified psychologists:

The latest (2008) edition of the WAIS consists of 15 **verbal and nonverbal (performance)** subtests, including:

- Similarities—Reasoning the commonality of two objects or concepts, such as "In what way are wool and cotton alike?"
- Vocabulary—Naming pictured objects, or defining words ("What is a guitar?")
- Block Design—Visual abstract processing, such as "Using the four blocks, make one just like this."
- Letter-Number Sequencing—On hearing a series of numbers and letters, repeat the numbers in ascending order, and then the letters in alphabetical order: "R-2-C-I-M-3."

The WAIS yields not only an overall intelligence score, as does the Stanford-Binet, but also **separate scores for verbal comprehension, perceptual organization, working memory, and processing speed**. Striking differences among these scores can provide clues to cognitive strengths or weaknesses. For example, a low verbal comprehension score combined with high scores on other subtests could indicate a reading or language disability. Other comparisons can help a psychologist or psychiatrist establish a rehabilitation plan for a stroke patient. In such ways, these tests help realize Binet’s aim: to identify opportunities for improvement and strengths that teachers and others can build upon. Such uses are possible, of course, only when we can trust the test results.

**SOURCE:** [http://intelltheory.com/alphalindex.shtml](http://intelltheory.com/alphalindex.shtml)

**References**

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