

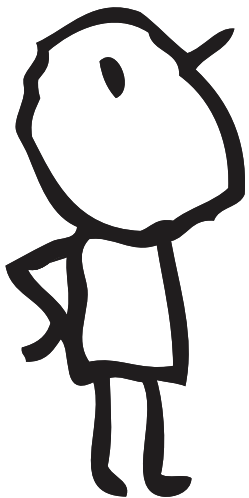
Zero in

ON KNOWLEDGE

Top 10 Ways to Evaluate an Instrument

Written by Wendy Gordon

When it comes to testing in organizations, no shortage of questionnaires promise to be the “scientific” and “research-based” answer you’re looking for. But how do you choose an assessment that has real scientific merit? Here, industry experts offer 10 principles that take the guesswork out of selecting an instrument that will provide the greatest impact.



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#1. ASSESS RELIABILITY

In using a test or inventory, you can only have confidence in the information it provides if it has reproduce-ability and is a true measure of differences in characteristics you are interested in. In psychology, reliability refers to whether an instrument consistently measures what it is designed to measure. Look for information on two basic types:

1. Internal consistency is the degree to which items of a particular scale measure the same thing. For example, on a spelling test, it determines that all the questions measure spelling rather than reading or writing.
2. Test-retest reliability refers to a test's ability to yield similar results when administered twice within a short period of time.

#2. EVALUATE VALIDITY

Yielding consistent results however, is not enough to make an instrument effective. While it may be reliable—you know it's measuring something—it still may not be valid. Validity refers to the extent to which a questionnaire measures what it purports to measure. An instrument may be valid, for example, because it correlates well with other measures of the same topic (concurrent validity), because it corresponds to another distinct kind of rating or observation such as sales performance (external validity), because it distinguishes between groups (discriminant validity), and because it does not correlate with constructs that are theoretically unrelated (divergent validity). There are many forms of validity, and each type provides information about how well the questionnaire measures the topic of interest and in what ways it might be used in decision making. The ultimate index of validity is determined by a collection of validity studies

Norms are a set of test scores that serve as a benchmark for this comparison. For example, many IQ tests have an average score of 100; based on this, it is possible to determine if an individual's score is above or below average, and how much.

#3. EXAMINE THE INSTRUMENT'S NORMATIVE SAMPLE

Any survey can gather raw data about a group of people. But how do you determine what the results actually mean? The interpretation of any one person's test score gets its meaning by comparing the individual's scores to a large group of people, known as the normative population.

To develop norms for a test, responses must be obtained from a large sample of individuals from the population of interest. The sample must be carefully constructed to represent the target population in major categories, including gender, age, ethnicity, and geography. Tests with no normative data may be cheap and simple to customize, but without a relevant yardstick, results are simply numbers and may potentially be useless.

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Look for tests with published data on how they are related to performance or effectiveness. You might also wish to examine research indicating whether targeted development initiatives achieve measurable results.

#4. FIND EVIDENCE THAT TEST RESULTS ARE RELATED TO REAL OUTCOMES

When making the business case for implementing your questionnaire, the most important question you'll have to address is whether or not the test results are related to improvement in the bottom line. Few vendors can offer real-life accounts that demonstrate ROI, but these can be powerful cases that reinforce your choice of instrument.

#5. ENSURE THE TEST IS BASED ON AN ESTABLISHED THEORETICAL MODEL

Professionally developed tests use empirical methods to examine a specific theory. A test's power is never derived from an individual's answer to any single question, but from grouping the answers together in sets to ensure that a single answer does not get overemphasized. Without such theoretical underpinnings, the meaning of test scores cannot be clear. Supporting materials that group related skills or factors together can facilitate interpretation. Look for tests that have literature on patterns, typical combinations, inverse correlations, and their significance to increase the efficacy of your interpretation and development planning.

#6 . CHOOSE A TEST THAT ADJUSTS FOR RESPONSE STYLES

When evaluation of any kind has the power to affect a person's job, some people will naturally misrepresent themselves (or others) in an overly favorable or unfavorable light. Occasionally, outright deception is a major concern. Tests used in such circumstances are constructed with checks and balances that identify haphazard, overly self-critical, or self-aggrandizing answers. These checks and balances alert the test professional that an individual has attempted to answer the questions deceptively. If the test doesn't identify positive and negative impression, omission rates, and random responding, ask what features are in place that will alert you to inconsistent or exaggerated claims.

#7 . LOOK FOR ACTIVE RESEARCH INTEREST

Use questionnaires created by psychological testing specialists who are members of professional groups that have published standards for test development and use. Responsive vendors also publish tests that reflect current innovations in testing theory.

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Good questionnaires will be thoroughly tested by experts in the industry. Ask whether other thought leaders have reviewed the test's theoretical model, or whether colleagues have performed statistical analyses or other research involving the instrument.

#8 . ASK ABOUT APPLICATION-ORIENTED MATERIALS

So employees in your organization completed a questionnaire. What next? Despite initial enthusiasm in development initiatives, interest often wanes over time. Save yourself time, money, and frustration by looking for an instrument that has training and coaching materials aligned with the model upon which the test is based. With industry experts offering best-practice applied principles, you'll get firsthand knowledge about how to best leverage the test results to get sustainable outcomes.

#9 . ENSURE IT COMPLIES WITH YOUR LOCAL LEGISLATION

Published tests must adhere to strict guidelines that govern the psychological industry (e.g., American Psychological Association, British Psychological Association) as well as comply with local employment legislation. Look for a vendor that keeps up-to-date with laws dealing with relevant issues such as adverse impact and a respondent's rights to access test information. No vendor should claim that its test will fully replace existing selection or development methods.

#10 . CHECK USER-QUALIFICATION REQUIREMENTS

Psychiatric assessment users need to be aware of all ethical and legal issues, and know how to deliver results in a way that won't be harmful to the respondent. For these reasons, many tests require that users have a certain level of post-secondary education or training in the test itself. If you don't meet the qualification level, or you require an in-depth understanding of the test, look for a test with a broad offering of cost-effective certification workshops with trainers in your area.

Be wary of employee tests with no qualification requirements. Human resources can be a litigious field, especially when assessments can affect a person's chance of getting a job.

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Effecting sustainable change in an organization can be a formidable task. Armed with these 10 indicators of psychometric strength, you'll be well equipped to gauge the potential efficacy of your assessment processes. While no test is perfect, publishers are always looking to maximize the return you get on your investment. You will find that a few inquiries upfront will mean a big payoff for you in the long run. Contact your vendor today to discover the testing options that best suit your needs.



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