

Selecting the Best Employees for Your Organization

Leonard A. White, Mark C. Young, and Robert N. Kilcullen

Specialized new employment tests are now available to help you choose the best employees possible – whether you're seeking a CEO or a linebacker.

A critical challenge for most organizations is to select applicants who will perform well on the job. *Downsizing, job sharing, and the "team-o-mania" sweeping the nation have created new pressures on both employees and employers to master multiple work roles and accomplish more with less.* Hiring and retaining talented, high-quality people is essential to any organization's ability to profit from these new directions in an increasingly competitive marketplace.

What

The eighties and nineties have been a period of intense personnel

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selection research activity. Much has been learned about using tests of ability, temperament, and other personal characteristics to make hiring decisions. This article explains how these developments can help employers make informed decisions about personnel selection programs for their respective organizations.

For many jobs, including lower-level ones, the difference in productivity between the top and bottom performers is in the tens of thousands of dollars annually. At one major fast-food chain, the difference in the annual output of the most and least productive store managers was \$75,800.00.¹ Large disparities in the output of high (vs. low) performers have been documented for numerous occupations including computer programmers, salespersons, military personnel, clerks, and managers. *The spread in employees' contribution to the bottom line grows as jobs become more complex and higher paying.*

How

Organizations use employment tests to select those applicants most likely to perform best on the job. In large organizations like the Armed

Services that hire many new people every year, the benefits of employment testing are well documented. But the financial impact of valid selection tests can be high, even for moderately sized organizations. For example, it was estimated that one year's use of an ability test for hiring officers saved the Philadelphia Police Department \$18 million.² Valid selection procedures also minimize the

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effort and legal expenses associated with terminating poor performers and the costs of recruiting and training replacements. The gains or losses from a selection decision are cumulated over the tenure of the person hired and the time spent in subsequent jobs if the person is promoted.

The high-quality employees an employer selects today can benefit an organization for many years to come.

There are also a number of ways to increase a company's payoff from using tests. Over time, the employer can improve the tests' ability to predict job performance, select more and more employees with high test scores, become more adept at hiring people who will stay with the company for longer periods of time, and reduce the costs of administering the tests.

Who

Given the complex, specialized nature of personnel selection, it is not surprising that most organizations do not have the in-house expertise to develop valid selection programs. They must, therefore, shop for personnel selection services. Studies show, however, that personnel managers and potential human resource managers (business students) can be easily duped into choosing a worthless "selection test."³

Some organizations have paid for selection tests and services for years, and later established that they were useless. In one company, a test was still being used to screen applicants even after it was found to be worthless. The reason given was that there were still many unused test booklets in the storage cabinet! The lesson here is that organizations need to adopt aggressive human resources practices to determine early on if a test is cost-effective, and then retain competent staff to monitor the testing.

Not surprisingly, psychologists have spent an enormous amount of time and energy developing employee selection tests: personnel managers can choose from a wide variety. But all tests do not work equally well for all jobs because the knowledge, skills, abilities, and other characteristics required for successful performance vary from job to job and from one organizational level to another.

Where

To choose the best program for a particular job, the personnel manager must first define the job and then determine what behaviors are required for the effective performance of that job. This procedure is called a job analysis. A good selection program is one that selects applicants

Teamwork is also less relevant if an individual works alone. But the other aspects of performance are important in every job that has been studied.

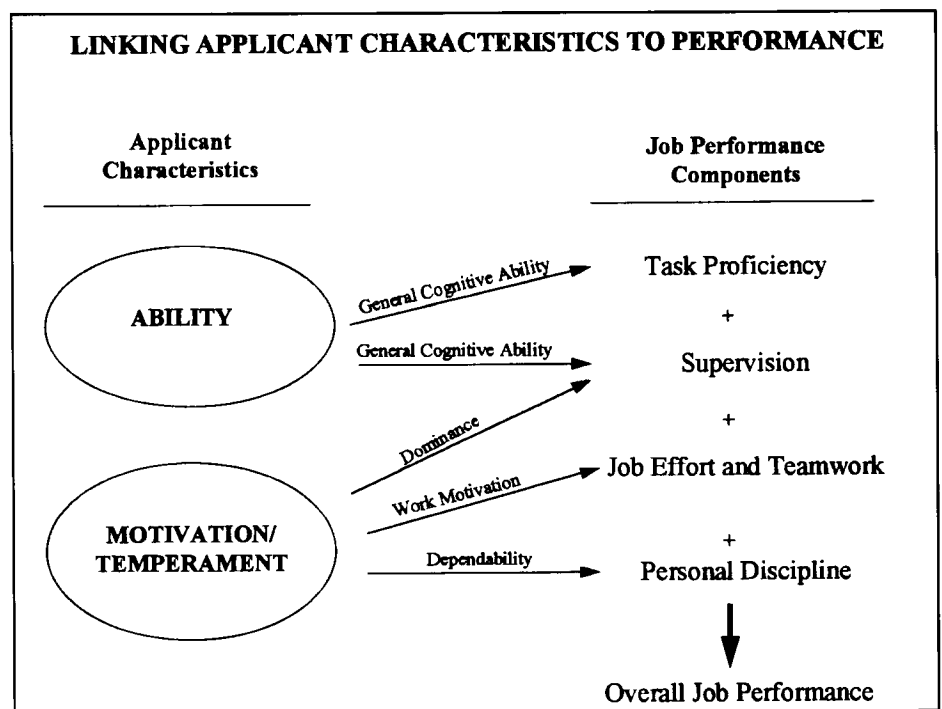
Task proficiency refers to the skill an individual has for performing the tasks central to a particular job. Operating a drill press, driving a

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based on the characteristics that will have the most influence on future job performance.

While some employee characteristics do vary from job to job, there are a few that are important for almost all jobs. These include task proficiency, supervision, job effort and teamwork,

truck, writing a computer program, and doing word processing are examples. General cognitive ability has been shown in hundreds of studies, involving over 250,000 U.S. workers, to be a good indicator of an individual's subsequent performance. High ability workers (as compared to



and personal discipline. In the figure below, linked to each performance area are the applicant characteristics most critical to that aspect of performance.⁴ Of course, some jobs do not have a supervisory component.

low) are more trainable and more apt to know the steps and procedures required to do their jobs.

Both ability and motivation/temperament are important to supervisory performance which includes the

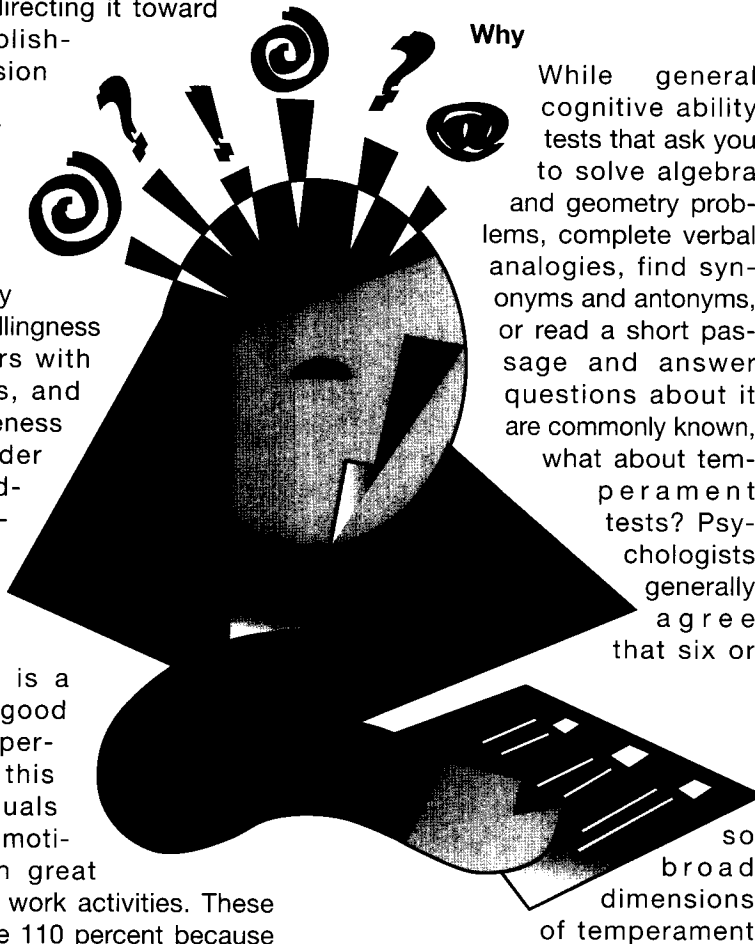
full domain of interpersonal influence and interaction. Persons high in dominance enjoy positions of leadership and influence, and are self-confident and assertive in interpersonal situations. Effective supervisors are proficient at maintaining the work group while directing it toward the accomplishment of mission objectives.

Job effort/teamwork refers to the consistency of a worker's day-to-day effort, their willingness to help others with job problems, and their effectiveness working under stress or adverse conditions. Work motivation (sometimes called conscientiousness) is a consistently good predictor of performance in this area. Individuals high in work motivation attach great importance to work activities. These individuals give 110 percent because they derive a great deal of personal pride and satisfaction from accomplishing work objectives.

Workers who exhibit high personal discipline generally stay out of trouble, are courteous to others, are respectful of authority, and to a greater extent avoid negative behavior such as alcohol or substance abuse or excessive absenteeism. The level of dependability a person brings to the job in the first place is a good predictor of their personal discipline in the workplace.

Overall job performance is the sum of an individual's performance in these critical areas. Ability and temperament are important to different aspects of performance. So, both

need to be considered in selection decisions. An applicant's ability and temperament scores can also be combined into an overall score that provides a measure of the individual's overall likelihood of performing well on the job.



Why
While general cognitive ability tests that ask you to solve algebra and geometry problems, complete verbal analogies, find synonyms and antonyms, or read a short passage and answer questions about it are commonly known, what about temperament tests? Psychologists generally agree that six or

so broad dimensions of temperament (sometimes called personality) are relevant to predicting performance in the workplace. We have already discussed those that are important for almost all jobs. Other characteristics like extraversion for a sales position are more job specific.

But obtaining an accurate assessment of one's temperament is not so clear-cut. Résumés and unstructured interviews are generally poor ways of measuring these attributes because applicants also recognize the desirability of these characteristics and may tailor their résumés and interview responses accordingly.

An alternative is to assess temperament using psychological tests. While this is a potentially useful

approach, there are common pitfalls of which employers should be aware. First, some "off-the-shelf" personality tests are designed to detect psychopathology (i.e., abnormal personalities), and are less relevant to determining suitability for employment. As a result, psychologists have been kept very busy developing tests to measure work motivation, dominance, dependability, and other attributes in "normal" adults. Data from these tests reveal that they are better than tests of abnormal personality for predicting job performance.

Can these available measures for assessing temperament in the normal range be made more useful to employers? We think so. These tests typically ask very broad, general questions, often about a person's attitudes or feelings. Since the statements aren't job specific, the same test can be marketed to many different clients. We believe this one-size-fits-all approach to assessment is not optimal for employers who wish to use the test. Why? Because the best predictor of someone's future work behavior is past behavior under similar circumstances. Thus, a better assessment of an applicant's work motivation or dependability is obtained by asking questions about past behaviors (as opposed to attitudes or feelings) targeted to the job environment of interest.

Our approach to measuring motivation and temperament is illustrated by a test we recently developed for assessing National Football League (NFL) draft prospects. Pro football scouts have good information on the physical skills of these players, and technical skills can be evaluated using game films and staged workouts. Our challenge was to measure the less visible attributes of mental toughness and dedication thought to be critical to success in the NFL. The test was administered to college football stars, some of whom were eventual first-round draft choices. As a further check on the validity of our measure we also administered the test to players on a Division I top 20

team. Results showed that the test provided a very good assessment of the player's dedication, personal integrity, and performance under pressure. Unlike available off-the-shelf measures, the items on our test focused on the manifestation of these characteristics on the football field.

We have also developed and used job-specific assessments of work motivation, personal integrity, stress tolerance, and other important characteristics for a variety of entry-level and supervisory positions with great success.⁵ Recently, we administered a measure of work motivation to 2,000 first-line supervisors nationwide. It proved to be a strong predictor of supervisory performance. As a *potential user of employment tests, you should be sure any measure you use is relevant to your company's positions and applicant pool.*

As individuals advance to senior leadership positions, the problems encountered on the job become progressively more complex, are less

complex task demands placed on senior leaders. Individuals who score well on tests of general cognitive ability are more proficient at reasoning, planning, and problem solving as compared with those scoring lower. However, ability tests alone do not provide a complete assessment because they are not designed to measure other characteristics (e.g., motivation, interpersonal skills) essential to senior-level performance.

A useful addition to measuring general cognitive ability we have been using for senior leaders is called the Career Path Appreciation (CPA). The CPA is a complex interview designed to measure an individual's capacity for complex organizational decision making. High conceptual capacity at senior-leader levels may be the sine qua non of what is called "strategic vision." The CPA assessment consists of a computer simulation task, a card sort exercise, and a structured analysis of prior work experiences. Highly trained interpreters are provided with a detailed picture of the individual's problem-solving capacities, interpersonal/communication skills, and capacity for working effectively in unstructured, novel environments. The evidence collected so far suggests this new test provides added value in predicting advancement and performance in senior-leader positions.

When

Selection tests, when carefully developed and administered, can substantially benefit most organizations. To develop a valid selection system, a company must make an initial investment in measuring performance and collecting data to link test scores (preferably of applicants) and performance criteria. A well-conceived job performance assessment will not rely on a single index of performance, but will probably include some but not all of the following: rating scales, information

from personnel files, measures of proficiency at critical job tasks, and such other criteria as job tenure, absenteeism, and/or sales.

For some small companies, entry-level work can be moderately complex and ill defined. This is particularly true of consulting firms. In these instances an assessment involving temperament, cognitive ability, and complex problem-solving skills may be required for entry-level positions.

Some organizations have decided to abandon tests for all but a few occupations. Another approach is to set very low cutoff scores for the test and then select from among those who pass using less valid techniques like a "seat-of-the-pants" interview. Your competitors will thank you for using these approaches!

Whether your organization is large or small, you can build a better-performing work force and save on hiring/terminating and remedial training costs by simply selecting the right individual for the job in the first place. □

¹Mark C. Young, "Measurement and Prediction of Job Performance Among Restaurant Managers: A Test Validation and Utility Analysis" (Ph.D. diss., Georgia State University, 1987).

²John E. Hunter and F. L. Schmidt, "Ability Tests: Economic Benefits Versus the Issue of Fairness," *Industrial Relations* 21 (1982): 293-308.

³Ross Stagner, "The Gullibility of Personality Managers," *Personnel Psychology* 11 (1958): 347-352; and Warren S. Blumenfeld and G. A. Leveto, "Gullibility's Travels," *Academy of Management Journal* 18 (1975): 370-374.

⁴John P. Campbell and others, "A Theory of Performance," in *Personnel Selection in Organizations*, ed. Neal Schmitt and Walter Borman (San Francisco: Jossey-Bass, Inc., 1993), 35-71.

⁵Robert N. Kilcullen, Leonard A. White, Michael D. Mumford, and Harriet Mack, "Assessing the Construct Validity of Rational Biodata Scales," *Military Psychology* 7 (1995): 17-28.

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well structured, are harder to understand, and less often have clear-cut solutions. Because of this, successful performance at these levels requires greater use of cognitive skills related to complex problem solving. At senior leadership levels, the ideal candidate is also willing to take calculated risks, is comfortable with uncertainty, and possesses a strong work motivation.

Not surprisingly, tests of general cognitive ability are good indicators of an individual's ability to handle the