Skills Profiler

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Administrator's Manual



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To ensure that you are obtaining the full benefits available to you from the use of HR•Assessments[®] products, please read all information contained in this manual carefully. By using this assessment product, you are acknowledging that you have read and understand the general guidelines provided in this manual, and that if you have any specific questions, you have referred them to a competent testing and/or legal expert for advice. The test developer and publisher do not assume liability for any unlawful use of this product.

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Assessment Products: An Investment in Your Company's Future

The decision to use assessment products in the employment process is one that can be very beneficial to your company in many ways. A well-designed, properly validated assessment, when used in conjunction with other employment screening tools, can save your company from investing training resources in an applicant who is not suited to perform the job for which he or she was hired, and, as a consequence, can help protect your company from negligent-hiring lawsuits.

Each assessment has been researched and developed by our own in-house staff of assessment professionals, which includes experienced, industrial psychologists.

Use of Assessment Products as "Tools"

Validity studies of the assessment products we offer have shown them to be predictive of job performance and therefore quite useful during the selection process. It is important to remember that assessment should be used in conjunction with other, equally important employment screening tools – such as criminal background checks, work histories and employer references – to present a balanced picture of the particular job candidate. Only when used in coordination with one another, will you be able to truly determine a "fit" between the candidate and the particular job for which he or she is applying.

Employment assessment, as defined in this manual, can be of several varieties, including trustworthiness or integrity tests, skills-oriented tests and personality tests. Each test can emphasize one of these elements, or may include several different components, testing a variety of factors. Choosing the proper assessment product for your needs is a key factor in making your selection process more effective.

Legal Aspects of Assessment Use and Administration

Although employment assessments have been in use for more than 40 years, their use became more prevalent after the passage of the Employee Polygraph Protection Act (EPPA) of 1988, which made it illegal for most private employers to use polygraph examinations as a routine pre-employment screening tool. Employment assessments that are not prohibited by the EPPA are designed to give the employer a legal way to gauge an employee's job-related skills and personality traits as an alternative to the polygraph test. Whereas the polygraph test is designed to monitor an applicant's physiological reaction to certain questions, the employment assessments seek to gain information on the job candidate through a series of questions designed to measure certain job-related attributes.

Today, the use of employment assessments continues to increase. Many of the country's largest corporations use these screening devices on a regular basis and have found great success in using them to hire and promote the best candidates.

Assessment Products and "Adverse Impact"

A common misperception of these assessments is that they all tend to discriminate against certain classes of applicants, in violation of state and federal laws against discrimination in employment decisions. In fact, this is not the case. Though there is evidence of poorer test performance by some members of protected classes on some skills assessments that include language and mathematical components, the use of such tests is still justified if the skills assessed by the assessments are essential for the successful performance of one or more of the job's key functions. In addition, researchers have found no evidence that well-constructed personality assessments discriminate on any unlawful basis.



However, it is incumbent upon employers who use assessment products to continually monitor selection procedures to ensure that no "adverse impact" is occurring in the overall selection process. Adverse impact is defined as a situation in which there is a substantially different rate of selection in hiring, promoting or other employment decisions that works to the disadvantage of members of a race, sex or ethnic group. If adverse impact does occur, the employer needs to be able to demonstrate the job-relatedness of the selection process. For further guidance in this area, read the *Assessment Selection and Follow-Up Procedures* section of this manual.

Federal Laws

There are federal laws and regulations governing the use of "selection" tools, such as employment assessments, insofar as they have any "adverse impact" on the employment opportunities of protected classes of individuals. Some of the more subtle aspects of these laws as they apply to the selection process are discussed in the section of this manual entitled *Using Job Analysis to Justify Use of Assessment and Its Sections (Legal Implications).*

Title VII

Title VII of the Civil Rights Act of 1964 (Title VII), covering employers with 15 or more employees, prohibits discrimination in employment decisions on the basis of race, sex, color, religion and national origin. Title VII authorizes the use of "any professionally developed ability test provided that such test, its administration or action upon the results is not designed, intended or used to discriminate" on any unlawful basis. In 1971, the U.S. Supreme Court, in *Griggs v. Duke Power Co.* (401 U.S. 424), adopted the standard that employer practices that had an adverse impact on minorities and were not justified by a business necessity violated Title VII. Congress amended Title VII in 1972, adopting this legal standard.

As a result of these developments, the government sought to produce a unified governmental standard on the regulation of employee selection procedures because the separate government agencies had enforcement powers over private employers and each used different standards. This resulted in the adoption of the Uniform Guidelines on Employee Selection Procedures (Guidelines), codified at 29 CFR Part 1607, which establishes a uniform federal position in prohibiting discrimination in employment practices on the grounds of race, color, religion, sex or national origin, and applies to all public and private employers covered by Title VII, Executive Order 11246, the State and Local Fiscal Assistance Act of 1972, the Omnibus Crime Control and Safe Streets Act of 1968, and the Intergovernmental Personnel Act of 1970.

Highlights of the Guidelines include:

- Provision of a uniform set of principles governing use of employee selection procedures that is consistent with applicable legal standards.
- Setting out validation standards for employee selection procedures generally accepted by the psychological profession.

The Guidelines do not require a validation of the selection device unless evidence of adverse impact exists. It is important to note also that compliance with the Guidelines does not remove the affirmative action obligations for assessment users, including federal contractors and subcontractors.



The Americans with Disabilities Act

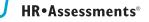
The Americans with Disabilities Act (ADA) provides that an employer "shall not conduct a medical examination or make inquiries of a job applicant as to whether such applicant is an individual with a disability or as to the nature or severity of such disability" (42 USC Sec. 12112(d)(2)(A); see also 29 CFR Sec. 1630.13). Inquiries into a person's disabilities are prohibited at the pre-offer of employment stage, except in a very narrowly defined situation when the applicant has *voluntarily* disclosed a medical condition requiring accommodation. The ADA protects a disability, not a characteristic that an employer may consider to be a personal flaw or undesirable aspect of an applicant's personality. The ADA does not prohibit inquiries into such personality attributes as propensity for honesty, ability to get along with others, organizational skills or management skills, to name a few examples. No question or series of questions designed to elicit information about a person's mental impairment (as defined by the ADA), or questions that would even tend to elicit such information, should appear on a testing product. Each HR•Assessments[®] product has been carefully reviewed under this standard to avoid any conflict with the ADA guidelines.

Recordkeeping Requirements

Various federal laws require employers to retain tests and test results for at least one year from the date the test is administered or from the date of any personnel action related to the testing, whichever is later.

State and Local Laws

Due to the wide variety, complexity and ever-changing nature of state laws, it is impossible to summarize each state's requirements in this brief overview. If you are unfamiliar with the state and local laws governing the use of screening devices applicable in your locale, consult a qualified labor law attorney or testing specialist who may provide competent guidance on this topic.





Assessment Selection and Follow-Up Procedures

Selection

Generally, when selecting a test or any other selection tool, you should choose one that has been designed specifically to measure the skills or traits necessary for the position in question. It is recommended that a thorough job analysis be performed to determine the connections between job functions and the attributes the testing product is designed to measure.

Monitoring

Monitor your selection process to ensure compliance with all applicable federal, state and local laws, checking your selection process for evidence of adverse impact. This should be conducted on a continual basis. HR•Assessments[®] testing products include testing logs that can be used to record each test taker's scores, as well as other important data that may be used to compute your own test norms and adverse-impact statistics.

Validation

If your monitoring results indicate that adverse impact is occurring in the selection procedures, you should determine in which component of the selection process this is happening. If the use of a certain testing product is found to be the cause, you will need to conduct a validation study of the test. Qualified testing professionals may be contacted to help in conducting a validity study. These professionals will be able to help determine whether the test is the cause of the adverse impact and whether the test is emphasizing a bona-fide occupational qualification for the job. In some instances, tests that in some contexts may be considered discriminatory may be lawful to use in others, if the test is centered on a bona-fide occupational qualification.

Scoring

Cutoffs and suggested "pass" or "fail" scores are not provided with these tests. Instead, norms and, in some instances, average test scores for various levels of job performance are provided. This information is provided for the elements the test is designed to measure. This information is a result of the testing universe used in the validation studies performed by the developer and is for demonstrative purposes only. Test results always should be interpreted, along with other information gathered through your selection process, to ensure that you get a complete picture of the job candidate or employee. It is recommended that you administer the test to your current employees so you may develop your own companyspecific norms for test performance. These norms then can be used as benchmarks during your testing and selection process.



The Importance of Basic Skills

In an increasingly competitive business environment, jobs are not the static entities they used to be. Dynamic market conditions require that employees take on multiple and frequently changing work assignments. Employees no longer are constrained to work on a fixed set of duties within a particular functional area of the organization, nor are they limited to master a single form of technology. Instead, the evolving nature of their assignments requires them to be cross-functionally competent and to possess a solid array of basic skills that can be transferred from assignment to assignment. Employees who possess these skills, as well as the capability to apply them to various problems, can secure a competitive business advantage. Identifying these abilities during the applicant pre-screening process should be part of the corporate effort toward competitiveness.

The HR•Assessments[®] Skills Profiler is a short, practical instrument intended to provide an accurate assessment of basic skills. Its emphasis is on skills application rather than knowledge possession. As mentioned, the diverse nature of today's work assignments demands employees who are able to transfer their skills from problem to problem and learn new assignments quickly. The Skills Profiler assesses the following six job-related skills:

- 1. Writing Skills ability to express thoughts in a clear and concise manner.
- 2. **Math and Reasoning Skills** ability to reason and think logically and to solve problems by performing basic mathematical calculations, such as addition, subtraction, division and multiplication.
- 3. Language Skills ability to rapidly and accurately recognize errors in word usage, spelling, punctuation and capitalization.
- 4. Attention to Detail ability to identify differences and similarities in two pieces of information.
- 5. Vocabulary Skills ability to effectively use basic office vocabulary.

This test may be used in two specific ways:

- To select job applicants with the necessary skills to successfully perform the job
- To determine the skills of current employees and whether training is needed

Selecting Top Applicants

Have you ever hired an applicant and later learned that he/she did not have the basic skills needed to hold the job? The Skills Profiler can help you predict the job performance of an applicant before your company hires him/her. The basic abilities measured apply to virtually any job, varying from entry-level through management. Thus, the Skills Profiler provides you a cost-effective and practical means of applicant evaluation.



Determining Current Skill Levels

Besides assisting you in hiring capable applicants, the Skills Profiler also can help you assess the skill levels of your current employees. Determining these skill levels will help you identify the training and development needs of your workforce, as well as employee strengths upon which your organization may want to capitalize. This type of employee assessment is needed to ensure the workforce needed to succeed in an increasingly competitive business environment.

The Skills Profiler also can be used to evaluate internal candidates for promotion. As in other testing applications, it is imperative that the requirements of the position be carefully analyzed and that the skills measured by the Skills Profiler be clearly related to the important or critical job functions.

Description of the Skills Profiler

The Skills Profiler provides a reliable measurement of the basic skills that underlie a majority of entry-level and supervisory positions. These skills have been identified by the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS): thinking skills, such as problem solving and knowing how to learn, as well as basic skills, such as reading, writing and mathematics.

One of the primary advantages of the Skills Profiler is its ease of administration and scoring, which is key to the test users' acceptability. Quick and clear scoring procedures are incorporated to make it accessible to all kinds of businesses, regardless of size or industry. Similarly, time spent on test completion is a valuable resource because test takers need to be monitored and timed by test users. Thus, test administration is done in a short time without sacrificing the technical qualities (reliability, validity) of the test.

The Skills Profiler should provide a significant return on investment for its users. A comparison of the cost of this test and the hidden costs associated with the recruitment and promotion of ability-deficient applicants would reveal that personnel testing is very cost-effective. Indeed, the training and time investment in employees who turn out to be unqualified represents a very significant hidden cost.



Using Job Analysis to Justify Use of Assessment and Its Sections (Legal Implications)

From a legal standpoint, if a test is to be used for selection or promotion purposes, it is important that users of the test take the necessary steps to establish a clear connection between the job tasks and the occupational environments measured by the test. This relevance should exist to meet the principles outlined in the Uniform Guidelines on Employee Selection Procedures (1978) and other federal employment-related legislation, such as Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, and the American with Disabilities Act of 1990.

The tasks that are crucial or essential to the job in question should be identified first. Then, the occupational environment that matches the job in question can be determined. This process should be carefully documented to justify the appropriateness of the test administered in the employee selection process.

The following are examples that indicate the relationship between job tasks and the occupational environments described in this manual:

| Task | Section |
|---|---------------------------|
| Troubleshoots packaging equipment to ensure continuity of manufacturing operations. | Math and Reasoning Skills |
| Plans delivery schedule according to work order for the day. | Math and Reasoning Skills |
| Reviews batch records to detect erroneous information. | Attention to Detail |
| Gives appropriate amount of change to customer. | Math and Reasoning Skills |
| Reads manual describing standard operating procedures to ensure quality standards. | Vocabulary Skills |
| Writes description of day's events for next shift to ensure continuity of manufacturing operations. | Language Skills |



As a general guideline for compliance with federal discrimination and disability laws, test users should not subject test takers to any adverse employment decision based on a test result, unless the test result and other factors considered in the decision-making process reveal that the person does not possess qualifications that are crucial or essential to the job in question. To illustrate, if a test taker performs poorly on a test section designed to measure inspection skills, and inspection skills are not crucial or essential to the position for which the test taker is being considered, the test result should not serve as a basis for excluding the test taker from the position. Similarly, if a test result indicates that a test taker is unable to perform certain physical tasks that are not crucial or essential to the job position at issue, the test taker should not be excluded from that position on the basis of the test result.¹ Test users can avoid such a scenario altogether by carefully identifying the tasks that are essential to the job position at issue, and administering only those tests or test sections that are appropriate and relevant to the position's requirements.

Test sections measuring proficiency in the English language also should be administered in accordance with these principles. Thus, if spelling, grammar, vocabulary or reading comprehension skills are not essential to a job position, a test taker should not be subjected to an adverse employment decision based on poor test results in those areas. Requiring employees or applicants to be fluent in English may constitute national origin discrimination in violation Title VII of the Civil Rights Act if the requirement is not justified by business necessity or directly related to job performance. There are some limited exceptions to this rule for jobs involving dangerous work requiring a heightened understanding of written or verbal safety instructions in English, or service positions that require significant communication in English with the public. Test users should consult with an attorney before subjecting any test taker to an adverse employment decision on the basis of English language deficiencies.

1 If the test taker's ability to perform a particular physical task is essential to the job position at issue, the Americans with Disabilities Act may require the test user to provide certain accommodations to facilitate the test taker's performance of the task at issue. Test users should consult an attorney before making any adverse employment decision based upon a test taker's physical inability to perform a task measured by a test result.





Administration Instructions for Paper Tests

Please read the following instructions before administering the Skills Profiler:

If you are using the software version of this test, please refer to the software's technical manual for administration and scoring instructions.

- 1. Decide on the number and kinds of assessment instruments to be used in evaluating applicants or employees. The Skills Profiler may be one of them. Other valuable evaluation instruments may be the application form, an employment interview, reference checks and other tests.
- 2. Decide the sections that will be administered beforehand. Make sure to select only jobrelated sections as described in the previous section titled, *Using Job Analysis to Justify the Use of Assessment and Its Sections.*
- 3. Before testing, you should be familiar with the test and testing instructions. Be prepared to answer any questions that may be asked.
- 4. The test should be administered in a quiet room, free from distractions and interruptions.
- 5. Provide to all test takers (applicant or employee) a ballpoint pen to ensure clear markings on the answer sheets. Instruct them to press firmly when marking their answers.
- 6. Distribute the test and have the test takers complete the information on the front cover (i.e., name, Social Security number and date).
- 7. Introduce the test to the test takers. Say, "This test is designed to evaluate the basic skills required for the job. There are four sections, each concerned with a different skill. You will have a specific number of minutes to answer each section. In addition, you will be asked to provide a sample of your writing by completing the *Writing Sample* section of the test."

Test users who are subject to the Americans with Disabilities Act of 1990 may be required to provide accommodations to disabled test takers who need assistance during the testing process. This may include, for example, relaxing the time limitations of timed tests, offering visual or audio assistance, or providing special lighting or seating arrangements. Test users who are uncertain of their obligations under the Americans with Disabilities Act should consult an attorney if an accommodation is requested in the testing process.

- 8. Have the test takers (applicant or employee) read the instructions for the first section you are going to administer (e.g., *Writing Sample*). The test takers should read only the instructions. Do not let the test takers read any of the other sections' questions.
- 9. Time the test administration. Give the test takers only the exact amount of time specified for the section that is being taken.
- 10. When the test takers' time for a section is up, say, "Stop!" Do not let the test takers answer any more questions in that section.
- 11. Repeat steps 8 to 10 for each one of the sections you have identified as job-related.
- 12. When you are done with all sections, ask test takers to turn in their tests and say, "Thank you. We appreciate your taking the time to complete this test."



Scoring Instructions for Paper Tests

Scoring the Skills Profiler is straightforward and time-efficient. Just follow the steps listed below:

- 1. Open the test and tear off the perforated tab on the right side of the test. Carefully separate the test cover from the answer sheet.
- 2. The first section of the test (*Writing Sample*) is intended to provide you a sampling of the test taker's writing ability and style. You can evaluate this section as you feel it is appropriate to the position being applied for.
- 3. For the remaining sections, the applicant's answers should appear as checkmarks on the carbonless answer key. An answer is correct when the check appears inside the preprinted answer boxes on the answer key. If an applicant checks off two answers for the same question, this should be counted as incorrect.
- 4. Add the number of correct responses and write this number in the space provided at the end of each test section. Total the section scores to obtain an overall test score.





Administration Instructions for Web-based Tests

Please read the following instructions before administering this test.

To access the Online Testing website: Make sure to be using Internet Explorer to access the site

1. Open your web browser and go to http://www.mytests.hrdirect.com

2. Click Administrator Login

3. Enter the user name and password we've provided you via e-mail.

Step 1 - Create applicant(s)

It is important that you complete this step first as most of the other screens will not be functional until applicant names have been entered into the system.

In the Applicant Setup tab, fill out the form with the applicants information and click the **Save** button at the bottom left of the page. You should receive the message "You have successfully created a new applicant." If you wish to create more applicants, click on the **Create New Applicant** button at the bottom of the page for a blank form and don't forget to click the **Save** button after entering each applicant.

Step 2 – Assign a test to an applicant

Click the "Assign Test" tab and select the applicant you would like to assign a test to from the drop-down list. Below you will see a list of tests that are available to the selected applicant. To the right of each test is a link to view his/her respective Administrator's Manuals. Click the checkbox next to the test you wish to assign, then click the **Assign Test** button at the bottom of the page.

Step 3 – Administer a test

Please inform your applicants:

1. Take the test using only Internet Explorer.

2. Make sure pop-up blockers are inactivated as the system will open a new screen.

3. Do not use the back button on the task bar during the test, as this will kick the applicant out of the test.

Click the "Administer Test" tab. Select an applicant, with previously assigned tests, from the drop-down list. Select the test that you want to administer. You may administer the test in one of three formats:

The Begin Test Now button will start the test immediately.

The **Send Email** button will e-mail an applicant the URL to our testing site along with a unique Session ID for them to enter to take the test.

The **Print Access Info** button will print out the URL to our testing site along with a unique Session ID, for the applicant, to enter to take the test.





Scoring Instructions for Web-based Tests

All web-based tests are scored automatically. Please read the following instructions to view the scores of a test.

View Test Results

Once a test has been completed, log in as an administrator and click the "Test Results" tab. You may view test results in one of two ways:

 Select the applicant's name from the "Applicant Name:" drop-down list and click the Show Tests for Applicant button. This presents all tests taken by the selected applicant. Click on one of the tests to present its results.

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 Select the test from the "Test Name:" drop-down list and click the Show Applicants for Test button. This presents all applicants who have taken the selected test. Click on the applicant's name to present test results.

At any time in the future you may go back and view past applicants' test results. They are saved in our system indefinitely.

Interpreting the Test Results

There are five tabs on a test's results page:

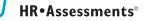
Test Scores: Presents raw score, corresponding percentile with interpretive text and the average score for each test scale.

Test Score Graphs: Presents the same information as Test Scores along with the graphical view of the corresponding percentile score.

Interview Questions: Presents suggested follow-up questions to help you further evaluate the candidate's responses to particular test items. If the test does not include this feature, clicking on this tab will result in the following message: "There are no follow-up interview questions for this test."

Candidate Responses: Lists each test question along with the applicant's response. If a test includes multiple scales, the test questions and applicants' responses are separated by Scale.

Utilities: Allows you to change your online testing password and print the various test result sections.





Interpretation and Use of Assessment Scores

Use the test score to evaluate the test taker. An applicant/employee with a low test score indicates that there is a strong probability that he/she possesses limited ability in the skill area the test assesses. A high test score indicates there is a strong probability that the applicant/ employee possesses strong ability in the skill area measured. For example, a score of 5 on the Vocabulary section indicates the applicant/employee possesses limited ability in understanding the definitions of commonly used words. Conversely, a score of 20 on the same test indicates the applicant/employee possesses strong skills.

Norms

Norms also can provide a point of reference regarding the relative test performance of each test taker when interpreting test scores. Norms represent average scores obtained by different samples of test takers. These norms can be compared to those obtained by your applicants or employees to ascertain their relative standing.

Tables 1 to 5 on the following pages contain norms obtained from studies conducted to validate the Skills Profiler. With the exception of the *Writing Sample* section, tables are provided for each individual test section as well as for the overall test score. These norms offer assistance when evaluating each applicant's/employee's test scores.

Each table consists of two columns of numbers. The first column is the raw test score. The second column is the percentile rank of that particular score or score range. The percentile rank is the percentage of test takers in the sample who obtained scores lower than the corresponding test score. For example, a test taker obtaining a score of 15 on the Math and Reasoning Skills section scored in the 65th percentile. This means that the applicant or employee scored higher than 65% of the test takers in the norm sample.

With regard to evaluating the *Writing Sample* section, before the applicant/employee takes the position being filled. Once the minimal writing skills have been established, you can evaluate the *Writing Sample* section to determine whether the applicant/employee has the necessary skills.





Skills Profiler Total Score

| JKILLS FIUTILE | i iotal score |
|----------------|-----------------------------|
| Test Score | Corresponding Percentile |
| 92 or above | 100 |
| 91 | 99 |
| 90 | 98 |
| 89 | 97 |
| 88 | 95 |
| 87 | 92 |
| 86 | 89 |
| 85 | 86 |
| 84 | 83 |
| 83 | 79 |
| 82 | 75 |
| 81 | 72 |
| 80 | 68 |
| 79 | 64 |
| | 60 |
| 78 77 | |
| 77 | 56 |
| 76 75 | 53 |
| 75 | 49 |
| 74 | 46 |
| 73 | 43 |
| 72 | 40 |
| 71 | 37 |
| 70 | 35 |
| 69 | 32 |
| 68 | 30 |
| 67 | 28 |
| 66 | 26 |
| 65 | 23 |
| 64 | 21 |
| 63 | 19 |
| 62 | 17 |
| 61 | 16 |
| 60 | 15 |
| 59 | 14 |
| 58 | 13 |
| 57 | 11 |
| 55-56 | 10 |
| 54 | 9 |
| 53 | 8 |
| 51-52 | |
| 49-50 | 7 6 |
| 48 | |
| 45-47 | 5 4 |
| 43-44 | |
| 39-42 | 3 2 |
| 38 or less | 1 |
| Average Score | 73 |

| Average Score | 73 |
|------------------------|-------|
| Standard Deviation | 12.47 |
| Number of Participants | 6436 |

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Skills Profiler



Table 2 Language Skills Score

| 5 5 | |
|---|-----------------------------|
| Test Score | Corresponding Percentile |
| 20 | 100 |
| 19 | 99 |
| 18 | 97 |
| 17 | 92 |
| 16 | 85 |
| 15 | 76 |
| 14 | 67 |
| 13 | 58 |
| 12 | 50 |
| 11 | 42 |
| 10 | 35 |
| 9 | 28 |
| 8 | 23 |
| 7 | 18 |
| 6 | 13 |
| 5 | 9 |
| 4 | 6 |
| 3 | 4 |
| 2 | 2 |
| 1 | 1 |
| Average Score Standard Deviation Number of Participants | 12 4.34 6932 |



Table 3Math and Reasoning Skills Score

| Test Score | Corresponding Percentile |
|---|-----------------------------|
| 20 | 100 |
| 19 | 99 |
| 18 | 95 |
| 17 | 88 |
| 16 | 77 |
| 15 | 65 |
| 14 | 52 |
| 13 | 41 |
| 12 | 31 |
| 11 | 23 |
| 10 | 17 |
| 9 | 12 |
| 8 | 9 |
| 7 | 6 |
| 6 | 3 |
| 5 | 2 |
| 4 or less | 1 |
| Average Score Standard Deviation Number of Participants | 14 3.42 6771 |



Table 4Attention-to-Detail Score

| Test Score | Corresponding Percentile |
|---|-----------------------------|
| 35 | 100 |
| 34 | 75 |
| 33 | 56 |
| 32 | 45 |
| 31 | 39 |
| 30 | 34 |
| 29 | 28 |
| 28 | 22 |
| 27 | 18 |
| 26 | 15 |
| 25 | 13 |
| 24 | 10 |
| 23 | 8 |
| 22 | 6 |
| 21 | 4 |
| 20 | 3 |
| 18-19 | 2 |
| 17 or less | 1 |
| Average Score Standard Deviation Number of Participants | 31 4.55 6573 |

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Table 5 Vocabulary Skills Score

| Test Score | Corresponding Percentile |
|---|-----------------------------|
| 20 | 100 |
| 19 | 81 |
| 18 | 62 |
| 17 | 48 |
| 16 | 37 |
| 15 | 30 |
| 14 | 24 |
| 13 | 20 |
| 12 | 16 |
| 11 | 13 |
| 10 | 11 |
| 9 | 9 |
| 8 | 7 |
| 7 | 5 |
| 6 | 4 |
| 5 | 3 |
| 3-4 | 2 |
| 2 or less | 1 |
| Average Score Standard Deviation Number of Participants | 16 4.13 6473 |

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You can use the information in Tables 1 to 5 as a guide in selecting the best job candidate; however, we strongly recommend that you collect and validate your own test data. The applicant/employee pool in your organization may differ from the study sample presented in this manual. Factors such as geographic location, business category and job responsibilities may have a significant effect on test scores.

One way to develop your own norms and benchmarks is to administer the Skills Profiler to your current employees. This will allow you to compare the scores of your top performers with those of your less-productive employees. The information then can serve as a guide during your applicant evaluation process.

In addition, if you can establish and document that, in general, high scorers on the test are also your better-performing employees, this can serve as an initial step in establishing the validity of the Skills Profiler within your organization.

If you do administer the Skills Profiler to your employees for establishing company-specific norms, make sure your employees understand that the results of your study will be used for norm development only and that their employment status will in no way be affected by their test scores.

The EEOC and the Uniform Guidelines of Employee Selection Procedures recommend that the job analyses be performed in conjunction with validation studies to determine the job-relatedness of each test and other selection tools used throughout the hiring process. It is the employer's responsibility to periodically monitor the employment screening process to ensure that it is fair and valid.





Giving Feedback and Discussing Test Scores

Providing feedback to test takers is a delicate process that should be taken seriously. Test takers are entitled to accurate and honest feedback. Note that communicating test scores to test takers may not be a good idea because they may lack sufficient knowledge about statistics and psychological measurements to interpret the results. Your organization should develop a procedure so test takers can be told what the next step in the hiring process is, regardless of their scores on the Skills Profiler or any other test. You should emphasize that the test results are only one of the criteria used to make selection or promotion decisions. Remind the applicant that there are many people applying for the same position, and that each applicant will be considered based on the extent to which all their qualifications and experience match the position requirements. The test score is only one such measurement.

Blaming a test for the rejection of an applicant should not be done. Hiring decisions never should be based solely on any single test score. It is the interviewer's responsibility to review all of the information gathered from the various components of the screening process, such as the employment application, the interview, reference checks, and other tests, to formulate a decision about the applicant's match to the position. Feeling that one is the victim of a single test score may provoke unnecessary resentment on the applicant's part.

The employer assumes full responsibility for the proper use of the Skills Profiler as described in this manual. This includes establishing job-relatedness to the job in question. If you have any questions about the proper use of employment tests, contact an employment testing specialist.





Validity

Effective applicant/employee evaluation procedures need to be valid. Validity can be defined as the extent to which the measure helps in predicting a criterion of interest as in job performance. In other words, validity can be conceptualized as to whether there is a relationship between test scores and job performance. The research studies described next have been conducted to determine the validity of the Skills Profiler.

The form of validation design conducted here is known as concurrent validation. A professionally conducted concurrent validation study is found to be an acceptable means of test validation, as described by the Uniform Guidelines on Employee Selection Procedures. Essentially, this approach requires that the test be administered to current employees and, concurrently, data on the performance of these employees be gathered. If the test is valid, one would expect a statistically significant correlation between individual scores on the test and job performance. In other words, those employees scoring highly on the test would be those who also perform best on the job; those who do poorly on the test also would be likely to receive poorer performance evaluations.





Validity Study #1

The Skills Profiler was administered to 188 employees in a variety of positions (e.g., secretary, office clerk, accounting clerk, customer service representative, telemarketing representative and staff professionals). Supervisors were asked to rate the study participants on the eight performance dimensions presented below.

| | Ve | rv | | | | V | erv |
|---|------------|----|-----|--------|-------|------|---------|
| | | | Ave | rage L | Level | High | 1 Level |
| 1. Learning Ability Learns from on-the-job experiences. Grasps new ideas/materials with ease. Uses information available to draw correct inferences. | w 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Problem-Solving Ability Adapts well to problems encountered. Uses information and resources available to resolve problem situations effectively and efficiently. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Ability to Understand Instructions Interprets instructions correctly and uses knowl and experiences to effectively complete the task at hand with minimal supervision. | ledge 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Math Skills Ability to perform basic computations, including adding, subtracting, multiplying, dividing, plus using decimals and percentages. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Attention to Detail Has the ability to verify and/or match letters and/or numbers (e.g., addresses, account numbers, invoices, purchase orders) quickly and accurately. Makes few mistakes when working with numbers and/or letters. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Proofing Skills Ability to identify errors in spelling, punctuation phrasing, and capitalization. Makes few errors when composing letters or memos. | on, 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Language Ability to use proper punctuation, spelling, word use and grammar during conversation and/or writing. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. Vocabulary Ability to use appropriate vocabulary in work-related situations. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Factor analyses of these eight dimensions resulted in one factor. Therefore, an overall performance rating was calculated for each study participant by adding the performance ratings of these eight dimensions and dividing by eight. This average rating will be referred to as Overall Performance in the following tables.

Table 6 provides the significant (p<.05) correlations between the Skills Profiler section scores and total score and the performance ratings collected. As a point of reference, the average correlation coefficient for the standard interview has been found to be $.14.^2$

2 Hunter, J. E. & Hunter, R. F. (1984). Validity and Utility of Alternative Predictors of Job Performance. Psychological Bulletin, 96, 72-96.



Table 6

Correlations Between Skills Profiler and Job Performance Ratings

| Skills Profiler | Work-Related Behavior | Validity Coefficient | Significance Level | Ν |
|---------------------|------------------------------------|-------------------------|-----------------------|------------|
| Math and Reasoning | Learning Ability | .25 | p<.002 | 160 |
| 0 | Problem-Solving Ability | .30 | p<.001 | 160 |
| | Ability to Understand Instructs. | .35 | p<.001 | 160 |
| | Math Skills | .32 | p<.001 | 141 |
| | Attention to Detail | .41 | p<.001 | 160 |
| | Proofing Skills | .40 | p<.001 | 154 |
| | Language Skills | .53 | p<.001 | 159 |
| | Vocabulary | .47 | p<.001 | 161 |
| | Overall Job Performance | .46 | p<.001 | 136 |
| Language | Learning Ability | .34 | p<.001 | 160 |
| | Problem-Solving Ability | .37 | p<.001 | 160 |
| | Ability to Understand Instructs. | .28 | p<.001 | 160 |
| | Math Skills | .26 | p<.003 | 141 |
| | Attention to Detail | .31 | p<.001 | 160 |
| | Proofing Skills | .38 | p<.001 | 154 |
| | Language Skills | .34 | p<.001 | 159 |
| | Vocabulary | .29 | p<.001 | 161 |
| | Overall Job Performance | .41 | p<.001 | 136 |
| Attention to Detail | Problem-Solving Ability | .20 | p<.012 | 160 |
| | Ability to Understand Instructs. | .17 | p<.028 | 160 |
| | Attention to Detail | .15 | p<.050 | 160 |
| | Proofing Skills | .19 | p<.017 | 154 |
| | Language Skills | .30 | p<.001 | 159 |
| | Vocabulary | .27 | p<.001 | 161 |
| | Overall Job Performance | .23 | p<.008 | 136 |
| Vocabulary | Learning Ability | .27 | p<.002 | 160 |
| | Problem-Solving Ability | .31 | p<.001 | 160 |
| | Ability to Understand Instructs. | .30 | p<.001 | 160 |
| | Math Skills | .30 | p<.001 | 141 |
| | Attention to Detail | .35 | p<.001 | 160 |
| | Proofing Skills | .36 | p<.001 | 154 |
| | Language Skills | .43 | p<.001 | 159 |
| | Vocabulary | .41 | p<.001 | 161 |
| T 10 | Overall Job Performance | .41 | p<.001 | 136 |
| Total Score | Learning Ability | .30 | p<.001 | 160 |
| | Problem-Solving Ability | .36 | p<.001 | 160 |
| | Ability to Understand Instructs. | .33 | p<.001 | 160 |
| | Math Skills | .31 | p<.001 | 141 |
| | Attention to Detail | .36 .41 | p<.001 | 160 154 |
| | Proofing Skills Language Skills | .41 .49 | p<.001 | 154 159 |
| | Language Skills Vocabulary | .49 .44 | p<.001 | 159 |
| | Overall Job Performance | .44 .46 | p<.001 p<.001 | 136 |
| | Overall job renormance | .40 | p<.001 | 130 |

Note: N equals the number of participants in the analysis.

These correlations indicated that, in general, those individuals who scored highly on the four sections that make up the Skills Profiler received high ratings by their supervisors on numerous and important job-related behaviors, as well as, on overall job performance. Those employees who scored lower on the test received lower performance ratings.



Validity Study #2

The Skills Profiler was developed with the intent to be able to measure important mental skills and abilities required for successful job performance. It was hypothesized that these mental skills and abilities would also be positively correlated with measures of cognitive ability and/ or intelligence. This hypothesis was tested by administering the original (5-section) version of the Skills Profiler to 112 employees employed in a variety of positions (e.g., secretary, office clerk, accounting clerk, customer service representative, telemarketing representative and staff professional). These employees also took the Personnel Ability Test. It has proved to be an accurate measure of intelligence (see Personnel Ability Test Administrator's Manual). Scores on the sections of the Skills Profiler were correlated with scores obtained on the Personnel Ability Test. The results of this analysis indicated a strong relationship between all sections of the Skills Profiler and the Personnel Ability Test (see Table 7). In other words, each section of the Skills Profiler was found to be strongly associated with cognitive ability, or intelligence. In addition, a statistically significant correlation was found between the Personnel Ability Test score and the total score on the Skills Profiler (r=.72, p<.001). Thus, an individual's score on the Skills Profiler can be said to be highly indicative of his/her overall intelligence level.

Table 7 Correlation Between Skills Profiler and the Personnel Ability Test

| Skills Profiler | Validity Coefficient | Significance Level | N |
|----------------------------|-------------------------|-----------------------|-----|
| Vocabulary Skills | .33 | p<.001 | 112 |
| Perceptual Skills | .31 | p<.001 | 112 |
| Math Skills | .73 | p<.001 | 112 |
| Logic and Reasoning Skills | .65 | p<.001 | 112 |
| Language Skills | .40 | p<.001 | 112 |
| Total Test Score | .72 | p<.001 | 112 |

Note: N equals the number of participants in the analysis.

Validity Study #3

Additional evidence of the validity of the Skills Profiler came from the statistically significant positive correlation between test scores and college grade-point average (GPA) obtained in a study conducted among 93 college students in their junior year (r = .37, p < .01). In general, those students that scored highest on the Skills Profiler also had the highest GPAs.

In conclusion, these research findings indicate that the Skills Profiler is a valid test in the context of employee selection and evaluation and has been found to be predictive of overall cognitive ability.

While HR•Assessments were designed to help predict various aspects of human behavior, score results are presented in terms of probabilities. False Positives and False Negatives are expected. EDI and the test developer are not liable for test taker, applicant or employee behaviors.

To order the Skills Profiler Test or any other HR•Assessments[®] product, or if you have any questions, call toll-free 800-264-0074.