

SkillCheck Behavioral

SkillCheck Behavioral – Instructions

The SkillCheck Behavioral test package includes four tests, each designed to measure a single, critical aptitude/attitude for success in various jobs. The four tests included in the SkillCheck Behavioral test package include:

Test	Test Name	Description
Reasoning	PSY - REAS-T	A test of a candidate's verbal and numeric reasoning, learning ability, problem-solving ability, and ability to understand and follow instructions (timed - 8 minutes)
Reliability	PSY - REL-T	A test of a candidate's ability to get jobs done with little follow-up or supervision, and attitudes towards work quality and thoroughness (untimed)
Risk	PSY - RSK-T	A test of a candidate's attitudes towards risk-related behaviors such as workplace policy non-compliance and theft (untimed)
Service	PSY - SER-T	A test of a candidate's workplace flexibility, attitude towards working with others and working in teams, and level of commitment to service to co-workers and customers (untimed)

The names of these four tests were chosen so as to not give away to the candidate the specific job aptitude/attitude covered in the test. Research has shown that knowing that they are being tested on reliability or risk-assessment, for example, may alter a candidate's approach to the questions presented in the test.

Using the SkillCheck Professional TestCenter, a test administrator can select any or all of the SkillCheck Behavioral tests to be given to a job candidate, and can give the tests either by themselves or in combination with other SkillCheck tests. For example, a candidate for a clerical position can be tested on typing, word processing, Reasoning and Reliability to create a complete profile of the candidate's skills, aptitudes and attitudes related to the job. Reporting capabilities of the SkillCheck Professional system allow test administrators to generate reports that include this complete profile information. (Information on giving SkillCheck tests and generating reports appears in the TestCenter portion of the SkillCheck documentation.)

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Reporting

At the end of a SkillCheck Behavioral Test, the following type of report will appear:

PSY - SER-T	
First Name: JON	
Last Name: HABER	
ID Number: 12345	
Date: 09/04/02	
Time: 4:17 PM	
Test Time: 2 minute(s)	
<hr/>	
SCALE SCORES	
SERVICE	
Total Score: 79	
Corresponding Percentile: 95	
Average Score: 68	
<hr/>	
This individual's service score is superior to that of most other people in the study sample. It is very likely that this individual enjoys helping others, is cooperative and non-confrontational. This is definitely an area of strength for this individual.	
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The report provides a total score for the candidate, which can be compared to the average score. The most important measurement on the report is the Corresponding Percentile, which ranks the candidate in comparison with those who took the test as part of the test's validation study. In the example above, the candidate scored in the 95 percentile for service. This means that the candidate ranked higher than 95% of other candidates who took the test, or that the candidate is in the top 5% of candidates in service ability.

Descriptive text appears below the statistical information providing a way to interpret the test score.

Validation information on the four SkillCheck Behavioral tests appears on the following pages.

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SkillCheck Behavioral – Reasoning Test (PSY - REAS-T)

Validity and Reliability

A test's level of effectiveness is directly related to its validity (the degree to which the test predicts job performance) and its reliability (the degree to which the test items measure what they are intended to measure in a consistent manner). The research described below demonstrates the validity and reliability of the Reasoning Test.

Validity Study #1

The SkillCheck Reasoning Test was administered to 78 employees in a variety of positions (e.g. computer programmers, engineers, secretary, office clerk, accounting clerk/bookkeepers, case managers, counselors, technicians, sales representatives, mechanics, machine operators, teachers, and managers) in various organizations. Supervisors were asked to rate the study participants on the three performance dimensions presented below.

	Very Low Level		Average Level				Very High Level	
1. Learning Ability Learns new ideas/concepts easily. Uses available Information to draw logical conclusions.	1	2	3	4	5	6	7	
2. Problem Solving Ability Resolves problems using logic and reasoning skills.	1	2	3	4	5	6	7	
3. Ability to Understand Instructions Interprets instructions correctly and uses knowledge and experiences to effectively complete the task at hand with minimal supervision.	1	2	3	4	5	6	7	

A principle components factor analysis of these three performance dimensions resulted in one factor. Therefore, an overall performance rating was calculated for the study participants by adding the performance ratings of these three dimensions and dividing by three. This average rating will be referred to as Overall Performance. Table 1 provides the correlations between test scores and the job performance ratings.

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Table 1
Correlations Between Reasoning Test Scores and Job Performance Ratings

Test	Work-related Behavior	Validity Coefficient	Significance Level	N
Reasoning Test	Learning Ability	.41	P<.001	78
	Problem-Solving Ability	.44	P<.001	78
	Ability to understand Instructions	.24	P<.003	78
	Overall Performance	.39	P<.001	78

These correlations indicated that, in general, those employees who scored high on the Reasoning Test received high ratings by their supervisors on three important job-related behaviors, as well as, on the overall job performance factor. Those employees who scored low on the test, received lower performance ratings. As a point of reference, research has shown the average correlation of the standard job interview with job performance to be .14.

Reliability

In addition to the validity study described above, a split-half reliability analysis was also performed to determine the consistency of the Reasoning Test items. First, the Reasoning Test items were “split” into two groups (odd versus even) for each study participant that participated in Validity Study #1. Then the total scores for these alternate halves were calculated producing two scores per person. These two scores were then correlated to determine the degree to which these alternate halves were related. This analysis yielded a correlation of .79 indicating a high degree of reliability within the Reasoning Test items.

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SkillCheck Behavioral – Reliability Test (PSY - REL-T)

Validity and Reliability of the Reliability Test

A test's level of effectiveness is directly related to its validity (the degree to which the test measures what it is supposed to measure) and its reliability (how consistent the test is at measuring what it is supposed to measure). The research described below demonstrates the validity and reliability of the Reliability Test.

Two types of validation studies were conducted: one using the concurrent method, the other utilized the construct methodology. Both validation strategies are accepted by the Uniform Guidelines on Employee Selection Procedures (Federal Testing Guidelines) as appropriate methods for determining a test's validity.

Validity Study #1 – Concurrent, Criterion-Related Validation

The concurrent, criterion-related validation method requires that the test be administered to current employees. Performance data is then gathered on those employees. If the test were a valid predictor of performance, one would expect a statistically significant correlation between test scores and the performance data collected. In other words, those employees who score high on the test are the same employees that demonstrate high levels of performance. Those employees who do poorly on the test would likely be those that demonstrate poor performance.

The Reliability Test was administered to 51 employees in a variety of positions (e.g. computer programmers, engineers, secretary, office clerk, accounting clerk/bookkeepers, case managers, counselors, technicians, sales representatives, teachers, and managers) in a variety of organizations. Supervisors were asked to rate the study participants on the two performance dimensions presented below.

	Very Low Level		Average Level			Very High Level	
1. Reliability Gets the job done with little follow-up or supervision.	1	2	3	4	5	6	7
2. Work Quality Work is thorough. This individual consistently strives for perfection.	1	2	3	4	5	6	7

An Overall Performance Rating was created by adding the ratings of the two performance dimensions. The Reliability Test scores were then statistically compared to the supervisors' performance ratings using correlation analysis. Table 1 provides the results of this analysis.

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Table 1
Correlations Between the Reliability Test Scores and Job Performance Ratings

Test	Work-related Behavior	Validity Coefficient	Significance Level	N
Reliability Test	Reliability	.34	P<.016	51
	Work Quality	.30	P<.041	51
	Overall Performance	.35	P<.012	51

These correlations indicate that, in general, those individuals who scored high on the Reliability Test demonstrated high levels of reliability on the job and were rated as having a high level of quality of work by their supervisors. Those that scored lower on the test were rated lower on these important job requirements. As a point of reference, research has shown the average correlation of the standard job interview with job performance to be .14.

Validity Study #2 – Construct Validation

In addition to the concurrent validation study described above, a construct validation study was also conducted. This validation strategy attempts to demonstrate the degree to which the instrument in question actually measures the psychological construct it is intended to measure (i.e., does the Reliability Test actually measure the reliability construct). The Reliability Test was administered to a group of 82 employees in jobs similar to the first study. In addition, the employees were asked to complete the NEO-5 (a highly respected personality assessment instrument primarily used in the clinical setting). The Reliability Test scores were then statistically compared to those of the NEO-5 Conscientiousness scale scores using correlation analysis. Table 2 provides the results of this analysis.

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Table 2
Correlation Between the Reliability Test Scores and the NEO-5 Conscientiousness Scale

Test	NEO 5 Construct	Validity Coefficient	Significance Level	N
Reliability Test	Conscientiousness	.45	P<.001	82

The resulting correlation indicated that, in general, those individuals who scored high on the Reliability Test also scored high on the NEO-5 Conscientiousness scale. Those employees that scored low on the Reliability Test also scored lower on the NEO-5 Conscientiousness scale.

The results presented in Tables 1 and 2 strongly suggest that the Reliability Test is a valid predictor of employee reliability behaviors on the job and its use should significantly increase an employer's ability to identify individuals with reliable dispositions.

Reliability

In addition to the validity studies presented above, an internal consistency analysis of the Reliability Test items was performed. Utilizing the samples from Validity Studies #1 and #2, a reliability coefficient was calculated for the 20 Reasoning Test items. This analysis yielded a coefficient of .65 indicating a moderate level of reliability (i.e., the test items are consistent in measuring the reliability construct).

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SkillCheck – Risk Test (PSY - RSK-T)

Validity and Reliability of the Risk Test

A test's level of effectiveness is directly related to its validity (the degree to which the test measures what it is supposed to measure) and its reliability (how consistent the test is at measuring what it is supposed to measure). The research described below demonstrates the validity and reliability of the Risk Test.

Two types of validation studies were conducted: one using the concurrent method, the other utilized the construct methodology. Both validation strategies are accepted by the Uniform Guidelines on Employee Selection Procedures (Federal Testing Guidelines) as appropriate methods for determining a test's validity.

Validity Study #1 – Concurrent Validation

The concurrent validation method requires that the test be administered to study participants. Performance data is then gathered on those individuals. If the test were a valid predictor of performance, one would expect a statistically significant correlation between test scores and the performance data collected. In other words, those individuals who score high on the test are the same individuals that demonstrate high levels of performance. Those individuals who do poorly on the test would likely be those that demonstrate poor performance.

The Risk Test was administered to 82 employees in a variety of positions (e.g. computer programmers, engineers, secretaries, office clerks, accounting clerks/bookkeepers, case managers, counselors, technicians, sales representatives, teachers, and managers) in a variety of organizations. These employees attended a university psychology course. As part of the course, they were asked to complete the test items and provide anonymous self-report ratings for the questions presented below.

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1. In the past year, how many times have you stolen from the company you work for. 0 1 2 3 4 5 + (Specify) _____ N/A
2. What value would you place on the merchandise you have stolen from your employer over the past year. \$ _____ N/A
3. In the past year, how many times did behave in a manner your supervisor disapproved of or would have disapproved of if he/she found out? 0 1 2 3 4 5 + (Specify) _____ N/A
4. What value would you place on the merchandise you have stolen from your employer over the past year. 0 1 2 3 4 5 + (Specify) _____ N/A
5. In the past year, how many times did your supervisor disapprove or your actions. 0 1 2 3 4 5 + (Specify) _____ N/A
6. In the past year, how many times did you behave in a manner your coworkers disapproved of or would have disapproved of if they found out? 0 1 2 3 4 5 + (Specify) _____ N/A
7. In the past year, how many times has it been brought to your attention that you were not following the company's policies and procedures? 0 1 2 3 4 5 + (Specify) _____ N/A
8. In the past year, how many unexcused absences have you had? N/A 0 1 2 3 4 5 + (Specify) _____
9. In the past year, how many times have you called in sick to work when you really were not? 0 1 2 3 4 5 + (Specify) _____ N/A
10. In the past year, how often did you work on personal matters on company time? 0 1 2 3 4 5 + (Specify) _____ N/A
11. In the past year, how many times did you go against your supervisor's directions? 0 1 2 3 4 5 + (Specify) _____ N/A
12. In the past year, how many work related rules and regulations have you not complied with? 0 1 2 3 4 5 + (Specify) _____ N/A

An Overall Performance Rating was created by adding the ratings of questions 1 and 3 through 12. Question 2 was not included in the Overall Rating because the answer values did not conform to the 1-5 likert scale rating format of the other eleven questions. The Risk Test scores were then statistically compared to the self-report ratings using correlation analysis. Table 1 provides the results of this analysis.

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Table 1
Correlations Between the Risk Test Scores and Anonymous Self-Report Ratings

Test	Work-related Behavior	Validity Coefficient	Significance Level	N
Risk Test	In the PAST YEAR HOW MANY			
	Times have you stolen from your company	-.20	P<.072	82
	Did you behave in a manner your supervisor disapproved	-.24	P<.034	82
	Did your supervisor disapprove of your actions	-.32	P<.004	82
	Did you behave in a manner your coworkers disapproved of.	-.21	P<.062	82
	Has it been brought to your attention that you were not following company policies	-.30	P<.007	82
	Unexcused absences have you had	-.26	P<.019	82
	Have you called in sick to work when you really were not	-.35	P<.002	82
	Times did you work on personal matters on company time	-.37	P<.002	82
	Did you go against your supervisor's directions	-.42	P<.001	82
	Work related rules and regulations have you not complied with	-.48	P<.001	82
	Times have you missed a work related deadline	-.21	P<.062	82
	Times have you disappointed yourself or others by not doing something you said you would	-.24	P<.032	82
	Overall Performance	-.49	P<.001	82

Note: The negative correlation indicates an inverse relationship between test scores and the self-report ratings (i.e., the higher the Risk Test score, the lower the self report rating).

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These correlations indicate that, in general, those individuals who scored high on the Risk Test, engaged in less negative workplace behaviors than those individuals that scored higher. As a point of reference, research has shown the average correlation of the standard job interview with job performance to be .14.

Validity Study #2 – Construct Validation

In addition to the concurrent validation study described above, a construct validation study was also conducted. This validation strategy attempts to demonstrate the degree to which the instrument in question actually measures the psychological construct it is intended to measure (i.e., does the Risk Test actually measure the risk construct). During the data collection described in Validity Study #1, study participants were asked to complete the NEO-5 (a highly respected personality assessment instrument primarily used in the clinical setting). The Risk Test scores were then statistically compared to those of the NEO-5 Conscientiousness scale scores using correlation analysis. Table 2 provides the results of this analysis.

Table 2
Correlation Between the Risk Test Scores and the NEO-5 Conscientiousness Scale

Test	NEO 5 Construct	Validity Coefficient	Significance Level	N
Risk Test	Conscientiousness	.33	P<.004	82

The resulting correlation indicated that, in general, those individuals who scored high on the Risk Test also scored high on the NEO-5 Conscientiousness scale. Those employees that scored low on the Risk Test also scored lower on the NEO-5 Conscientiousness scale.

The results presented in Tables 1 and 2 strongly suggest that the Risk Test is a valid predictor of risk and its use should significantly increase an employer's ability to identify individuals that will not engage in negative workplace behaviors.

Reliability

In addition to the validity studies presented above, an internal consistency analysis of the Risk Test items was performed. Utilizing the samples from Validity Studies #1 and #2, a reliability coefficient was calculated for the 20 Risk Test items. This analysis yielded a coefficient of .79 indicating a high level of reliability (i.e., the test items are consistent in measuring the risk construct).

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SkillCheck Behavioral – Service Test (PSY - SER-T)

Validity and Reliability of the Service Test

A test's level of effectiveness is directly related to its validity (the degree to which the test measures what it is supposed to measure) and its reliability (how consistent the test is at measuring what it is supposed to measure). The research described below demonstrates the validity and reliability of the Service Test.

Two types of validation studies were conducted: one using the concurrent method, the other utilized the construct methodology. Both validation strategies are accepted by the Uniform Guidelines on Employee Selection Procedures (Federal Testing Guidelines) as appropriate methods for determining a test's validity.

Validity Study #1 – Concurrent, Criterion-Related Validation

The concurrent, criterion-related validation method requires that the test be administered to current employees. Performance data is then gathered on those employees. If the test were a valid predictor of performance, one would expect a statistically significant correlation between test scores and the performance data collected. In other words, those employees who score high on the test are the same employees that demonstrate high levels of performance. Those employees who do poorly on the test would likely be those that demonstrate poor performance.

The Service Test was administered to 51 employees in a variety of positions (e.g. computer programmers, engineers, secretary, office clerk, accounting clerk/bookkeepers, case managers, counselors, technicians, sales representatives, teachers, and managers) in a variety of organizations. Supervisors were asked to rate the study participants on the four performance dimensions presented below.

	Very Low Level		Average Level				Very High Level	
1. Stress Management Demonstrates patience and calmness during times of stress with customers and/or coworkers.	1	2	3	4	5	6	7	
2. Flexibility Takes on new tasks as necessary. Can re-prioritize tasks as needed.	1	2	3	4	5	6	7	
3. Helping Disposition Willingly goes out of his/her way to assist coworkers and/or customers.	1	2	3	4	5	6	7	
4. Team Player Is liked by others. Works well with other's to achieve the team's/department's goal.	1	2	3	4	5	6	7	

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An Overall Performance Rating was created by adding the ratings of the four performance dimensions. The Service Test scores were then statistically compared to the supervisors' performance ratings using correlation analysis. Table 1 provides the results of this analysis.

Table 1
Correlations Between the Service Test Scores and Job Performance Ratings

Test	Work-related Behavior	Validity Coefficient	Significance Level	N
Service Test	Stress Management	.26	P<.068	51
	Flexibility	.29	P<.039	51
	Helping Disposition	.27	P<.059	51
	Team Player	.22	P<.128	51
	Overall Performance	.33	P<.018	51

These correlations indicate that, in general, those individuals who scored high on the Service Test demonstrated high levels of service on the job, were flexible, able to manage stress, had helping dispositions and were team players. Those that scored lower on the test were rated lower on these important job requirements. As a point of reference, research has shown the average correlation of the standard job interview with job performance to be .14.

Validity Study #2 – Construct Validation

In addition to the concurrent validation study described above, a construct validation study was also conducted. This validation strategy attempts to demonstrate the degree to which the instrument in question actually measures the psychological construct it is intended to measure (i.e., does the Service Test actually measure the service construct). The Service Test was administered to a group of 82 employees in jobs similar to the first study. In addition, the employees were asked to complete the NEO-5 (a highly respected personality assessment instrument primarily used in the clinical setting). The Service Test scores were then statistically compared to those of the NEO-5 Agreeableness scale scores using correlation analysis. The Agreeableness scale measures the following characteristics: trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness. Table 2 provides the results of this analysis.

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Table 2
Correlation Between the Service Test Scores and the NEO-5
Agreeableness Scale

Test	Work-related Behavior	Validity Coefficient	Significance Level	N
Service Test	Agreeableness – NEO 5	.29	P<.009	81

The resulting correlation indicated that, in general, those individuals who scored high on the Service Test also scored high on the NEO-5 Agreeableness scale. Those employees that scored low on the Service Test also scored lower on the NEO-5 Agreeableness scale.

The results presented in Tables 1 and 2 strongly suggest that the Service Test is a valid predictor of employee service behaviors on the job and its use should significantly increase an employer's ability to identify individuals with a service orientation.

Reliability

In addition to the validity studies presented above, an internal consistency analysis of the Service Test items was performed. Utilizing the samples from Validity Studies #1 and #2, a reliability coefficient was calculated for the 20 Service Test items. This analysis yielded a coefficient of .67 indicating a moderate level of reliability (i.e., the test items are consistent in measuring the service construct).