



The Value of Taking a Modular Approach to Employment Testing

*By Jesse Llobet, Ph.D., Industrial Psychologist, and
Jon Haber, Senior Vice President, First Advantage*

Synopsis: The following white paper explains the concepts and benefits of modular assessments, which are optimized to generate maximum information on specific candidate traits within a reduced timeframe. It includes a case study of an employer's use of modular assessments in its large-scale employment initiatives.

Behavioral assessments are an important piece of the overall hiring process, as they allow employers to gather important information from numerous job candidates in a consistent manner. Assessments are not designed to replace in-person interviews, but to augment the process of helping HR managers find the best pool of applicants with whom to devote personal time. This aspect is particularly important to companies with high-volume employment needs. However, no matter how valuable, employers and applicants alike complain about the length of time required to complete in-depth assessments. Today's new modular approach to behavioral assessments solves that issue by generating maximum information on specific traits in a much shorter time frame.

The "I" Word

The correlation between success on an interview and job performance, generally thought to hover around the 0.14 range, is an interesting statistic to ponder: Interviews are labor intensive and subjective in scoring, but, based on the statistics, they are no better at predicting job success than tossing a dart at a wall full of resumes.

However, jettisoning in-person interviews from the hiring process would be considered blasphemous for most employers, and rightly so, as that they represent one of the few human points of contact during a recruiting process that is becoming more automated by the day. While a successful interview may not always predict general job performance, the face-to-face connection between recruiter and job candidate can divulge detail that is difficult to collect using any other technique.

The following exchange, part of a sketch performed by British comics Dudley Moore and Peter Cook in 1961 (a less sensitive era), highlights the power of the interview to zero in on critical details that might not be spotted by even the most sophisticated of job boards:

Peter: "Yes... if you'd like to remain motionless for a moment, Mr. Spigott. Please be stood? Now, Mr. Spigott you are, I believe, auditioning for the part of Tarzan?"

Dudley: "Right."



Peter: “Now, Mr. Spigott, I couldn't help noticing almost at once that you are a one-legged person.”

Dudley: “You noticed that?”

Peter: “I noticed that, Mr. Spigott. When you have been in the business as long as I have you come to notice these things almost instinctively. Now, Mr. Spigott, you, a one-legged man, are applying for the role of Tarzan – a role which, traditionally, involves the use of a two-legged actor.”

The absurdity of this situation highlights a valid point: The most powerful computer cannot rival the human mind's ability to rapidly take in and process sensory input, apply vast data banks of experience to that input to transform data into knowledge, and generate and prioritize options to formulate responses.

Imagine an automated process designed to screen out one-legged actors from the Tarzan interviewing process. An online survey attached to a job-board application could certainly include a question on the subject. But how many questions must a survey include to cover every possible scenario for which an employer might want to screen? In this case, it was the human mind of the interviewer that was able to quickly identify and manage the unexpected. Hiring managers need to have access to data so that they can make the right decisions.

Bridging the Gap Between People and Technology

Decades of effort have been put into finding the right balance between technology and humanity in order to maximize the efficiency and accuracy of pinpointing the right hires in a pool of job candidates. Behavioral interviewing techniques, for example, attempt to bring the consistency and quantification associated with automation into the person-to-person interviewing process.

Other procedures involve separation-of-labor models, where automated tools such as online job application programs screen applicants using sophisticated key-word searches, or online skill- and behavioral-assessment tools gather data from many job candidates and provide synthesized results. Recruiters then apply their own "human resource" – the brain – during interviewing and decision-making steps in the screening and hiring process.

Separation-of-labor models work increasingly well with larger pools of candidates and with simple or predictable jobs. While hiring a key executive may justify elaborate, human-intensive testing and interviewing models, when it comes time to screen 10,000 candidates for 500 call-center positions, an automatically filtered and ranked list of candidates is valuable to a recruiter. Even when numbers are not so staggering, the ability



to screen out and order candidates based on scientific measures can help a recruiter make informed decisions.

Across the 5th (or 8th or 16th) Dimension

If a salesperson offered to help interviewers double or triple the correlation between interview results and job success, most employers would jump for joy. Yet few employers are as excited about assessments, even though their results can predict job success two, three, or even five times better than in-person interviews.

Part of this has to do with the general attitude most people have toward testing. Many people have negative memories about being tested in school and dislike the process of faceless evaluation. From the employer's perspective, testing also offers a specific aspect of the hiring process that can be scrutinized, criticized and – in worst cases – made the subject of employment-related lawsuits.

This has not stopped employers from using testing instruments for pre-employment purposes, as well as for making other important organizational decisions. Decades of experience have demonstrated that assessments can be used effectively, safely and legally to inform the hiring process, a trend illustrated by the fact that more than 500 companies provide skills and behavioral assessment products and services

These products measure all types of dimensions: skills dimensions, such as typing speed and accuracy, or the ability to use high-level computer programming languages; behavioral dimensions, such as the ability to work independently or in teams; risk dimensions, such as attitudes toward illegal drug use and workplace violence and theft; or cognitive dimensions, such as verbal and mathematical reasoning skills.

Assessments in this vast marketplace vary in quality, flexibility and price. While assessments of skill and knowledge frequently use content validity as a starting point, many behavioral products are based on specific theories of human behavior encapsulated in a commercial assessment instrument. It's common to measure 5, 10, or 16 personality factors in a single test, or to assess a battery including specific behavioral constructs along with specific cognitive or knowledge areas, leaving it up to the recruiter to synthesize test results into useful information.

Striking a Balance for Time

Assessment product providers frequently hear of the challenges faced by people trying to fit assessment into their hiring processes. About three quarters of these issues boil down to the same query: "Why do these tests take so long?"

This is not an idle question; even the most sophisticated users of assessment tools are seeing their recruitment and hiring processes move from the recruiter's desktop to online spaces such as electronic mail, job boards, in-store kiosks and virtual lands, such as MySpace and YouTube.



The first interaction a candidate has with a potential employer is often through the company's job board, a system normally powered by an applicant tracking system (ATS). This is a sophisticated program that allows employers to capture data, scan submitted resumes, perform criminal or educational background checks, as well as assess candidates using behavioral and skills assessment tools.

Today's potential employees are used to short bursts of interaction with numerous automated systems and online activities. After spending a half hour sending a dozen e-mails, instant messaging six friends, uploading their latest rock video to YouTube, updating their MySpace account and playing a game of *Doom* – sometimes simultaneously – few are prepared to devote 90 minutes on a job board taking a lengthy assessment that asks 300 items and measures two dozen job dimensions.

Just as a screening process is designed to filter and rank candidates, the testing process requires employers and test developers to set priorities. An assessment, no matter how valid and reliable, needs to be modular enough to meet both screening and time constraints. Employers no longer want to require candidates to take the whole test for the 25 percent of the results that are relevant.

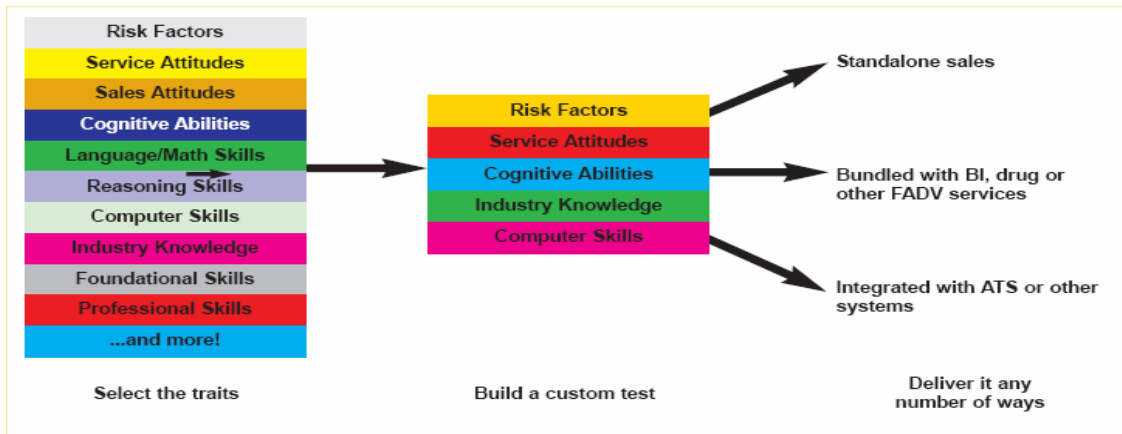
First Advantage Identity – Modularity

First Advantage has been in the business of modular skills assessment for more than 10 years (formerly as SkillCheck, Inc.) and has identified a new approach toward employee assessments. In the case of skills assessments, modular tests break a product such as Microsoft Word into a set of discreet objective-based items, each corresponding to a product feature such as setting margins or using the Print Preview option.

In the case of behavioral traits and cognitive abilities, the smallest unit of measurement is not the single skill, but the trait (e.g., a single behavioral characteristic or cognitive ability). First Advantage developed *Identity*, an assessment product that tests on multiple traits – personality, skill and knowledge factors – and consists of discreet, modular assessments or *scales* that provide employers with the building blocks they need to create assessments that fit the evaluation and time requirements of a particular screening process.



The following illustrates the concept behind *Identity*:



This approach uses pre-validated, modular, discreet scales that can be assembled into specific assessments and enable employers to create and use assessments that match their specific measurement and time requirements. The following case study illustrates the benefits of this approach.

Assessing Retail Candidates with a Modular Approach

One of the nation's leading supermarket chains implemented the First Advantage HMS applicant tracking system to power its job board, which handles more than 50,000 job applicants per year. Given its large number of job openings, the organization wanted to be able to identify candidates with the behavioral tendencies most suitable for the job before progressing them on to the next phase of the screening process.

An analysis of key positions within the company identified a set of traits needed to succeed on the job, including attendance, customer service, reliability and willingness to follow company rules and guidelines. Recruiters also specified that all assessments needed to be available in both Spanish and English, and that an assessment should take 15 minutes or less to complete.

Working with First Advantage industrial psychologists and test developers, the organization chose four of the 30 pre-validated, self-contained *Identity* behavioral scales as the basis for analysis. With the data already available for these four scales, the organization also decided to perform a separate validation study based on its own employees.

First Advantage combined the four scales to create a single assessment and administered it to 198 existing employees. In addition to taking the assessment, the candidates were also independently rated based on a carefully constructed survey measuring five dimensions, including reliability, attendance and punctuality, helping disposition, trustworthiness and rules compliance. The survey correlated analyses against each



dimension and then combined them to create a single performance factor correlated with test scores.

Correlation between individual scales varied between 0.22 and 0.32. Correlation of test scores with the single performance factor total score was 0.35 with statistical significance of $p < 0.001$.

The test was also assigned a cut score based on both validation data and the human resource needs of the company. The supermarket chain needed to hire 6,000 people per year, wanted to conduct six or seven interviews per job opening and estimated it would screen 60,000 applicants in total. First Advantage calculated a cut score that was both statistically valid and would “pass” approximately 39,000 candidates. Operational validity at this cut point was calculated at 0.37 with significance at $p < 0.001$.

First Advantage integrated the test into the applicant tracking system with the cut score and other components, including online application, screening for tax credits, criminal background checks and drug testing. As requested, the assessment added less than 15 minutes to the length of the online screening process.

In addition to specifying candidates above and below the cut score, and ranking candidates by score, the report for this assessment also provided recruiters with a custom set of behavioral test questions based on answers provided during the assessment to help in the interviewing process.

Putting the Pieces Together

Behavioral assessments allow employers to gather important information from numerous job candidates in a consistent manner. A solid assessment program balances the best features of automation – consistency, efficiency, cost-effectiveness, global availability – with the best features of human interaction – flexibility, spontaneity, creativity and wisdom.

Integrating those assessments into an automated system, such as an applicant tracking program, means that scientifically derived data on candidate potential is delivered to the recruiter in a form that is easy to interpret and helpful in guiding subsequent phases of the interviewing and review processes.

The ability to create a custom test that fits the needs of a specific employer and the time requirement for candidates has been available for quite some time, but mostly as a costly process that only larger organizations could afford.

“Off-the-shelf” assessments have filled the needs of those who cannot afford custom test development, although they often involve compromises in terms of quality, efficiency or relevance for a particular purpose.



Through the use of modular, trait-based, pre-validated testing scales, First Advantage's *Identity* makes test customization an affordable option, even for smaller enterprises. In addition, *Identity* was designed to interact with HRIS systems, including ATS, enabling employers of all sizes and resources to integrate purpose-built custom assessments within their existing talent management processes.

Today's hiring managers can streamline the hiring process by delivering on the promise of automation while respecting human judgment and wisdom, all with a manageable and cost-effective approach.

About the Authors

Dr. Jesse Llobet, PhD, Industrial Psychologist, earned his B.S. in Psychology from the University of Florida and his doctorate in Industrial/Organizational Psychology from the University of South Florida. Dr. Llobet has over a decade of experience in researching and developing targeted assessment tools designed to identify the most promising candidates for optimal performance. His experience in employment screening includes having consulted with Fortune 500 companies across the U.S., and his tests have been used by over 10,000 companies, ranging from small, entrepreneurial firms to corporate giants. Dr. Llobet also works closely with several well-known professional and collegiate sports organizations during the athlete recruitment and draft process. His proprietary athlete testing instruments provide coaches and scouting personnel with a snapshot of the athletes' mental toughness, conscientiousness and level of intelligence.

Jon Haber, Senior Vice President - Assessment Solutions, First Advantage, founded SkillCheck, Inc. in 1988 and transformed the company from an independent publisher of nationally acclaimed computer reference books to an international leader in computer-based testing. Under Haber's leadership, SkillCheck assessment solutions leapfrogged available testing technology, offering superior performance-based testing, a broad multilingual product line and unique customization capabilities, before the company was purchased by First Advantage in 2006. The SkillCheck portfolio of testing innovations coupled with Haber's unique ability to develop effective skills assessment programs for multinational organizations has earned the trust of thousands of companies, including two of the world's largest staffing organizations. Haber graduated with Honors from Wesleyan University with a B.S. in Chemistry. He is also the co-author of a new book from ISTE on the evolving role of technology in education.

For additional information about First Advantage Assessments, please call your First Advantage Sales Representative at 800-648-3166, or visit our website at www.fadvassessments.com.