

Getting to the Next Level **A Success Story**
Faster growth meant giving up
(gulp) some control
page 100



Inc.

The Handbook of the American Entrepreneur

SPECIAL REPORT

HOW TO MAKE GREAT HIRES

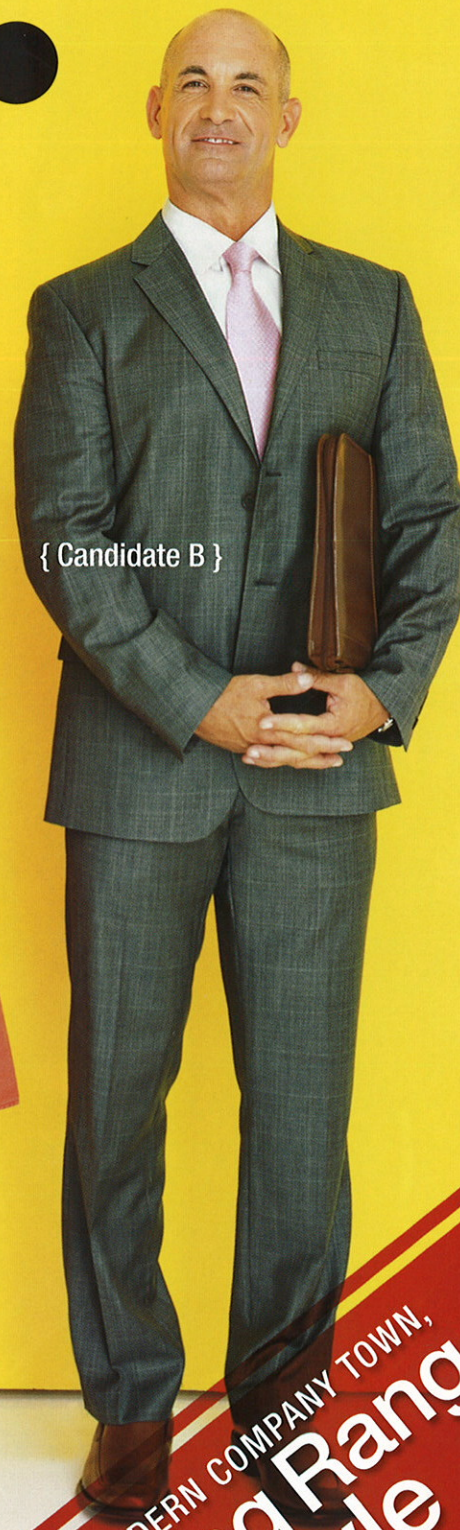
Powerful new tools for
finding stars, weeding out
duds, and cutting turnover

Including

Best & Worst Interview Questions
How to "Clone" Your Top Performers
The Most Effective Personality Tests
(Because you can't judge a book
by its cover) page 90



{ Candidate A }



{ Candidate B }

August 2006
\$4.99 US \$5.99 Canada



A MODERN COMPANY TOWN,
Viking Range
Style
page 112

Figure No. 1
THE CANDIDATE

INDEPENDENT

TOO
INDEPENDENT?

WHAT'S HIS
WATSON-GLASER
SCORE?

OOPS,
ONLY 11
REFERENCES

HAVE HIM
GIVE A MOCK
PRESENTATION

DOES
HE GOLF?
(Oh, never mind)

DON'T ASK
HIS AGE

NEW

THE SCIENCE OF

Figure No. 2
THE CANDIDATE

ASK HER ABOUT
A RECENT
SETBACK AT
WORK

LET'S RUN
A GLOBAL
PERSONALITY
INVENTORY

TRY HER ON
THE LEADER
TEST

GIVE HER A
PROBLEM TO
SOLVE

BRING IN
MORE
INTERVIEWERS!

DON'T ASK
HER AGE

NICE SMILE
(but so what)

HIRING

Care to dramatically enhance your chance of finding great employees? Trade in your gut instincts for a systematic approach to interviewing, testing, and evaluating job candidates **BY STEPHANIE CLIFFORD**

PHOTOGRAPHS BY DANIELA STALLINGER



What was her company missing? • Susan Bowman asked herself that as soon as she plopped into her chair at Tri-anim, a medical-supplies distributor in Sylmar, California. It was two and a half years ago. Bowman had just joined the company as head of human resources, and her highest priority was improving the company's hiring. When she arrived, the HR department was basically shut out of the hiring of salespeople. Bowman wanted to make it more useful, especially after she noticed some hires were fantastic and others were disappointments.

What Tri-anim was missing—and Bowman fortunately recognized this—was something most employers in America have been missing: Conventional job interviews don't work.

A typical interview—unstructured, rambling, unfocused—tells the interviewer almost nothing about job candidates, other than how they seem during a couple of meetings in a conference room. But what are these people like late at night and under pressure? What motivates them? How smart are they? Have they handled tough projects? Do they prefer working alone or are they better with a team? Regular interviews assess barely any of this, and in fact are miserable predictors of job success. In technical terms, they have a .2 correlation with predicting success.

Discouraging, isn't it? It would be—

except that industrial and organizational psychologists are on the job, seeking the best ways to evaluate job candidates. A focused three-part approach can make the hiring process as standardized and objective as possible—and can help predict the best performers. The system starts with what is called behavioral interviewing, in which candidates are barraged with tough questions about how they've handled specific assignments and problems. Bluffing becomes close to impossible, and the process is based on facts, not feelings. Interviewing is followed by two kinds of tests: cognitive tests, which measure intellectual ability, and personality tests, which are now sophisticated enough that companies can directly compare candidates with their top performers. The third step is asking candidates to do tasks like the ones they'd do on the job.

Most employers will recite over and over that people are the secret to their success—and given that turnover costs about 1.5 times the salary of the employee who moves on, according to PricewaterhouseCoopers, they'd better mean it. But it's astounding how few companies bother with more than improvised, all-but-meaningless interviews to hire their people. "This is a topic that's been researched to death by the field of industrial and organizational psychology," says Peter Cappelli, management professor and director of the center for human resources at the Wharton School of the University of Pennsylvania. "The amazing thing is how few companies take this seriously. It's kind of mind-boggling that they would undertake such huge investments and not pay attention to what we know about how to pick out the people who are going to be best."

Susan Bowman had been studying some of this research. She was pleased to see that Tri-

AND NOW I SHALL RUB YOUR HEAD

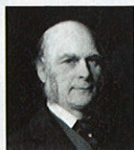
Employers have been trying for centuries to identify the best hires, just as researchers have been trying to measure personality. Some stops along the way:

400 B.C. In Platonic Athens, civil service candidates are required to pass physical and cognitive tests.



202 B.C. The Han Dynasty begins testing civil service candidates. By 1370, it's become an onerous process: a day in isolation writing essays and a poem, three three-day district exams, and a final test in Peking. The system was finally abandoned in 1906.

1823 The *Phrenological Journal and Miscellany* advocates a way of assessing personality in which the skull shows bumps where corresponding parts of the brain are well developed. So a bump at the top of the skull, just before the crown, is an indicator of benevolence. Wander half an inch down and you're at mirth.



1869 Francis Galton argues that there are measurable differences between individuals' minds, introducing the idea of psychological testing.



1917 The American Psychological Association asks Robert Woodworth for a test to assess emotional stability in Army recruits. Woodworth devises 116 yes-or-no questions. The questions on his "Personal Data Sheet," the first job-related personality test, seem fascinatingly outdated today: "Do you have too many sexual dreams?" "Do people find fault with you more than you deserve?"



1928 Harvard's Henry Murray devises tests to analyze "normal" subjects (as opposed to, say, shell-shocked soldiers).

anim had been using the testing company PSI to assess candidates for some positions. She was less pleased that the test criteria hadn't been updated in six years and that some of the company's hiring managers didn't use the tests. Bowman immediately had PSI reassess the best and worst performers in a number of areas and develop profiles of the top performers. The goal is to compare candidates with the ideal. Tri-anim salespeople, for example, need to be not just energetic and detail-oriented (pretty common in salespeople) but also unusually independent: They spend a lot of time alone.

Bowman began requiring the PSI assessments as a last step in the managerial, IT, and sales hiring processes. They've already turned up surprising results. Recently, a recruiter and a manager were disagreeing over two candidates for a position—until the PSI reports came back. “The results were really staggeringly different. It was a combination of not only skill sets, but that one individual's people skills were so much lower than the manager had anticipated and the other candidate scored much higher,” Bowman says.

She has now trained all of Tri-anim's hiring managers in behavioral interviews. “Structured interviews with behaviorally based questions really allow us to drill down,” she says. In a daylong session, the managers learned the tenets of behavioral interviews and practiced asking open-ended questions. Though she doesn't use work assessments—and that could increase the company's hiring success even further—these two steps paint rich, objective portraits of candidates. Even the sales hiring managers, who didn't want to abandon their random interviewing tactics, have become believers as turnover has dropped. “We all want to hire the best,” Bowman says. “This gives really good, objective information that allows the manager to take the halo off the applicant.”

STEP 1

➔ In which the bored interviewer turns intrepid interrogator

Other than people's wan complexions beneath fluorescent office lights, there's not much that's consistent in typical job interviews. Topics discussed completely depend on the interviewer, who might spend an hour discussing a candidate's alma mater, the recent weather, or even himself. He could dismiss the candidate before she's even started speaking because she's overweight or overdressed, or he could lose focus because

he's having a rotten day.

Afterward, the interviewer is left with a resumé and a vague sense of... how the candidate acts during an interview. Is she qualified? Dunno, but her resumé looks nice. Would she be good at the job? Well, she likes to sail, which is fun.

As psychologists have pointed out, traditional

interviews produce a subjective, acutely narrow view of a job candidate. That view is likely biased—studies have shown interviewers tend to prefer candidates similar to them, judge candidates on fewer criteria than they think they're judging them on, and tend to let biases about matters like race and gender get in the way. “Everybody thinks they're much better interviewers than they are,” says Ben Dattner, a New York City industrial and organizational psychologist.

Still, the interview is a brilliant tool if you make certain changes to it. Behavioral inter-

views have almost triple the correlation of conventional interviews with job success. (To gauge if a hire is successful, academics use measures like the dollar value of an employee's contribution to the company, his or her relative share in overall output, and later performance reviews, promotions, and raises.) Behavioral interviewing involves, by definition, a group of interviewers defining qualities needed for a job, asking candidates to give past examples of how they've demonstrated those qualities, asking the same questions of each candidate, and taking notes throughout. The premise is that what someone has done in past jobs is a superior indicator of what he or she will do in future jobs. It's the same idea behind checking references.

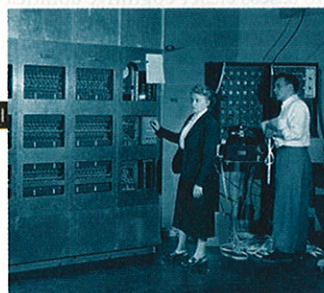
To see how structured interviews work, take a look at Hope Lumber & Supply, where HR chief Bill Vogt credits much of his company's growth to behavioral interviewing. Hope, which is based in Tulsa, brings in \$1.2 billion a year selling building supplies to contractors. Eight years ago, when the company was making a fifth of that, Vogt and the owners predicted, correctly, that the housing market was about to surge. If they hired the right managers, they could ride that wave.

Following behavioral-interviewing maxims, Vogt starts by talking to people intimate with the job and deciding what qualities are necessary for it. He has a standard template for what he wants in managers: leadership, a drive to make money for the company and for themselves, ambition, and past operational responsibility. Depending on the challenges of the specific business unit, he'll alter the template.

Then he comes up with open-ended questions that get at the desired qualities. Behavioral interviews use questions that are rooted in the past—“Tell me about a time when”—rather than hypotheticals—“What would you do if?” Vogt digs deep

2

CORRELATION BETWEEN CONVENTIONAL INTERVIEWING AND SUCCESSFUL HIRING



1946 A psychologist named Raymond Cattell uses an IBM sorter and the brand-new Illiac computer to perform factor analysis on 4,504 personality-related words. He concludes that there are 16 measures of personality, including boldness, tough-mindedness, and self-sufficiency.

1956 AT&T, following the example of the OSS, sets up assessment centers to test executives.

1963 W.T. Norman analyzes Cattell's work. His verdict: Only five factors—neuroticism, extroversion, agreeableness, conscientiousness, and openness to experience—really shape personality. The “Big Five” approach, as it's called, becomes the basis for many modern personality tests.

1964 The Civil Rights Act is passed...

1972 ...followed by the Equal Employment Opportunity Act...

1990 ...and the Americans with Disabilities Act. All the acts challenge conventional hiring practices.

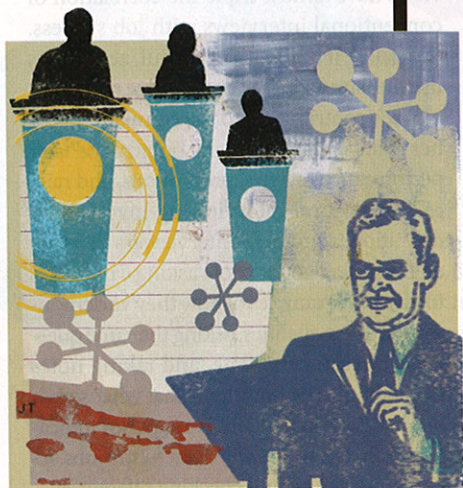
2000 Personality tests go online, and interest in them revives.

5

1940 At a mental hospital in Minnesota, the Minnesota Multiphasic Personality Inventory is born. It is meant to call out neuroses with yes-or-no questions such as “Were you considered a bad boy?” and “Everything is turning out just like the prophets of the Bible said it would.” Oddly, it becomes a popular (and, as of last year, illegal) employment test.



1943 The Office of Strategic Services, precursor to the CIA, begins putting would-be spies through exercises that mimic what they would do on the job. Sample: Devise a propaganda campaign to dispirit South Manchurian Railway workers. These are the first work assessments.



GATHER ROUND! FOR A GROUP INTERVIEW

REAL WORLD STRATEGY

Rather than try to compare everyone, and by the end you've already forgotten what your first candidate looks like and acts like, we take one hour and have eight people in the same room together. It started as a way to save time, but the big benefit was we got to stack people up against each other. We don't look so much at their answers, but at their communication style, how they interact, how they think on their feet, how they problem-solve, their energy level, enthusiasm, knowledge.

For things like sales or the leadership team, we'll turn to everyone in the group and say, "I'd like to find out who, other than yourself, is the best candidate in this room." For a sales position you want to know someone's not scared to speak up.

If shyness doesn't matter in a role, we don't pay any attention to it. In financial or accounting, we're expecting that group's gonna be a little more introverted. There, we'll get people to write down the two candidates they would select and why.

There's a wisdom-of-crowds mentality. If eight people are saying "I think you should hire Linda," and we don't think Linda's the right candidate, they might point out something we haven't seen.

We might do another group interview and find two more candidates, then put the five together. By the third interview, it's a one-on-one or two-on-one. Last we measured, turnover was 1.4 percent for the 180 people in the head office.

—Brian Scudamore
CEO, 1-800-Got-Junk?

into his candidates' work experience. "I get into the current operation," he says. "What did you inherit? What were the sales margins, accounts payable, percent current status, inventory like? What did you do with that, what did you achieve? Clearly, we're looking for achievers and winners and people very knowledgeable of their operation." Specific questions like these, in addition to assessing candidates' skills, combat resumé fraud—it's pretty difficult to lie about sales margins and inventory turns.

Ideally, a team of people will meet with the candidate. That minimizes the importance of any one person's reaction, good or bad. Vogt arranges a panel interview for general questions, and then sets up one-on-one interviews focused on specific areas. Vogt asks about EEOC compliance and OSHA incidents; the CFO asks about accounting details; the COO asks logistics questions. In any behavioral interview, questions should be job-related, to keep the interview relevant and to avoid discrimination complaints. To the extent possible, every candidate should be asked the same questions. Interviewers should take notes, and should get together to discuss their views just after the candidate leaves.

STEP 2

➔ In which the candidate relives college-entrance tests

As helpful as behavioral interviews are, they're even more effective when combined with employment tests, many of which are now administered online. These are given to candidates to assess either cognitive abilities (cognitive tests are filled with SAT-like verbal and math questions) or personality traits (personality tests include preferential questions like "Would you rather spend a night at home alone than go to a crowded party?" or biographical questions like "Were you a class officer in high school?"). While cognitive tests have a slightly closer correlation with job success, personality tests are useful both as a basis for interview questions and for subsequent development. For the best results, companies should use both sorts of tests or a single test that combines the two elements. (For a roster of tests, see "Choose Your Weapon" on page 96.)

Many testing companies today can do impressive comparisons of candidates

against existing employees—the goal being to essentially clone top performers. "The assessments allow you to really identify what is different between our stars and our slugs," says James Hazen, an organizational psychologist and the owner of Applied Behavioral Insights, a consulting firm based in Wexford, Pennsylvania. Hazen uses several tests with his clients.

Assessments can turn up some fascinating findings. Dayton Freight Lines, a trucking company based in Dayton, Ohio, had been having trouble with drivers. Customers reported that some drivers were rude. Some drivers were complaining over their CB radios. Some workers' productivity was falling, or they were late on their deliveries. Denise Noel, the director of quality at Dayton Freight, was stumped. These drivers all had good qualifications and had interviewed well, yet she saw no way to predict who would be an outstanding performer on the road. Finally she brought in a company called Hogan Assessment Systems and had the company present its extensive research on truck drivers.

Noel had assumed all truck drivers were similar. But Hogan had found two distinct truck-driver profiles. The top city performers are social and gregarious, great with customers—which makes sense, because they pick up and drop off multiple times a day. The best line-haul drivers are quiet and introspective—which is good for people who never see a customer. Noel has adjusted her hiring now, having candidates take the Hogan assessment to find the best job for them. Turnover for drivers has fallen to 22 percent (the industry average is 116 percent). "You just think a driver is a driver, and that's not true," Noel says. "We just didn't look at that part of the hiring process enough."

Discussing the results of assessment tests with candidates—or even giving them the full report—is increasingly popular. "The trend has really been to lay it all on the table between the second and third interviews," says James Hazen. This gives candidates the

NUMBER OF COGNITIVE
AND PERSONALITY TESTS
ON THE MARKET

12,500

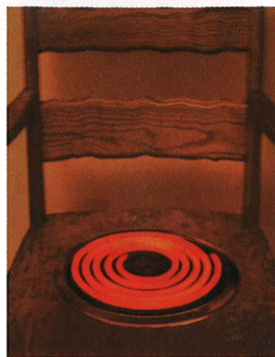
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chance to explain themselves, gives the interviewer a chance to address weak spots, and, if someone is hired, points out ways he or she might best be managed.

There are, by some estimates, 2,500 employment tests on the market. One of the biggest mistakes companies make is using the wrong test. A classic example is the Myers-Briggs Type Indicator, that ubiquitous test that sorts people into 16 personality categories. Myers-Briggs, a test created by a Pennsylvania woman who was fascinated by how her merry personality differed from that of her straightforward husband, has a weak record of predicting job success. Indeed, its publisher warns that "It is unethical and in many cases illegal to require job applicants to take the Indicator if the results will be used to screen out applicants."

With so many tests available, it's not a surprise that employers use tests meant for other purposes, like Myers-Briggs (which is fine, by the way, for employee development), or even design their own tests. But choosing the wrong one can mean dismissing qualified candidates and even getting sued for discrimination. Employers need to know whether a test is appropriate for hiring, what it measures, and how it's designed, along with making sure it's legal. Psychologists evaluate a psychological test by two measures, called reliability and validity. Reliability examines whether items that supposedly measure the same thing (agreeableness, say, or conscientiousness) correlate highly with one another. Validity asks, in this case, for proof that scores on tests are related to success in specific jobs. "If you go out on the Net and look at the hundreds of tests out there, a very small percentage have validity data," says Seymour Adler, a senior vice president at Aon Consulting and a teacher of organizational psychology at New York University.

Recent psychological research supports going beyond validity and reliability data. First, both for legal purposes and to ensure usefulness, make certain the test is designed for selecting—as distinct from developing or training—employees. It should be created or adapted for the workplace, not for clinical or medical diagnosis. Pre-employment tests are more predictive when they compare an individual's score against a group (they use "normative" scales, in the lexicon) instead of just presenting it on its own ("ipsative" scales). For the best results, too, employers should continue to evaluate and revalidate the tests within their companies to make sure



WELCOME. TAKE A SEAT

The most effective interview questions are open-ended and based on the candidate's experiences. Use follow-ups to push for detail: "How did that make you feel?" "What exactly did you say?" "What precisely was your role?"

TRY THIS...

- ☒ Have you ever had several projects with the same deadline? How do you tackle that?
- ☒ Tell us about a time you failed at a task.
- ☒ How have you handled the last few angry customers you've come across?
- ☒ Tell us about a project for which you had fiscal responsibility. How did you stay on budget?
- ☒ Tell us about a recent split-second decision you made on the job. How did you approach it?
- ☒ What's the last thing on which you and your boss disagreed? How did you settle it?
- ☒ Take us through the most significant presentation you've given to clients.
- ☒ What was the most frustrating experience in your past job? The most satisfying?
- ☒ Tell us about a time when the task you were given changed at the last minute.
- ☒ Tell us about a time you took a risk and it failed. How did you feel?

TO GET AT THIS

- Conscientiousness, coping skills, organization
- Response to adversity
- Customer- and client-service skills
- Ability to handle a budget
- Decisiveness and decision-making style
- Manageability and communication style
- Presentation skills
- Motivation and general temperament
- Flexibility
- Resilience and attitude toward risk

STAY AWAY FROM THIS...

- ☒ Where does your husband work?
- ☒ What holidays will you need off?
- ☒ Are you an American citizen?
- ☒ How tall are you?
- ☒ Do you have any medical condition we should know about?
- ☒ Where is your family from? What kind of accent is that?
- ☒ When did you graduate from high school?
- ☒ How'd you hurt that arm?
- ☒ You aren't pregnant, are you?

BECAUSE

- Marital status is out of bounds.
- This could be construed as discriminating on the basis of religion.
- However, "Are you authorized to work in the U.S.?" is fine.
- An exception: If there is a specific minimum requirement for the job.
- However, you can note that new hires will be subject to a medical exam.
- This could be construed as discriminating based on national origin or race.
- This could be gauging age, and age discrimination is not allowed.
- You can't ask about potential disabilities.
- Are you kidding?



CHOOSE YOUR WEAPON

Remember that not all employee evaluation tests are suitable for hiring. (Myers-Briggs, we're talking to you.) Here are 10 extensively validated, highly respected tests that are.

COGNITIVE TESTS

① Watson-Glaser Critical Thinking Appraisal

This test has legions of fans, including JCPenney, Coors, and government intelligence agencies. It measures problem-solving skills, creativity, and other factors with 40 rather difficult questions. It should not be used for entry-level positions but is great for management and higher. For sample questions, see page 98. **\$10 to \$20 per test (prices for this and most assessments vary depending on the volume ordered) at assesstalent.com or 800-211-8378**

② Wesman Personnel Classification

A combination of verbal and numerical questions used by Bayer and Valtera, among other companies. It's meant primarily for hiring into decision-making roles; it is predictive of on-the-job performance and the ability to learn. **\$7 to \$15 at assesstalent.com or 800-211-8378**

③ Multidimensional Aptitude Battery-II

A recent test, created in 1998, with 303 questions; applicants are given 100 minutes. It measures general mental ability: the ability to reason, plan, and solve problems. It's suited for technical and professional/managerial jobs. **\$190 for a 25-test kit at sigmaassessment.com or 800-265-1285**

④ Wonderlic Personnel Test

An old classic, created in 1937. It takes 12 minutes,

and the 120 million people who have taken the test include most NFL players—the league uses it to assess college recruits. However, this is best for entry- to midlevel jobs, as the questions are quite simple. **\$10 at wonderlic.com or 800-323-3742**

PERSONALITY TESTS

⑤ NEO Personality Inventory-Revised

NEO measures respondents on five scales: neuroticism, extroversion, openness to experience, agreeableness, and conscientiousness. It is appropriate for everyone from salesmen to executives to security guards. **\$245 for a kit including 25 tests at parinc.com or 800-331-8378**

⑥ 16PF

This 185-item test measures the 16 personality factors identified by Raymond Cattell (see page 93); invented in 1949, it's in its fifth edition. Fortune 100 retailers and software developers are among the clients. It's meant for leadership positions. **\$8 to \$30 at pearsonassessments.com or 800-627-7271**

⑦ Hogan Personality Inventory

Robert Hogan has been refining this test for 30 years. It asks for true or false responses to attitude and biographical questions, like "I don't care if others like the things I do" and "I like classical music." It measures subjects on seven personality scales such as ambition and prudence, and six occupational scales such as service orientation and

clerical potential. The company can compare subjects' answers with those of people in most jobs in the U.S., from nannies to bomb-disposal technicians to CEOs. **\$25 to \$175, depending on the amount of detail in report, at hoganassessments.com or 800-756-0632**

⑧ Personality Research Form

Created in 1967, this 352-item test is in its third edition. It measures 22 job-relevant personality traits and is appropriate for any level of employee. **\$80 for a five-test kit at sigmaassessment.com or 800-265-1285**

⑨ Global Personality Inventory

The GPI, a 300-question test, is made especially for multinational firms or firms employing foreign workers; it's used to test senior salespeople, mid-level and senior-level managers, and executives. **\$40 to \$50, depending on the number of factors tested for, at previsor.com or 800-367-2509**

⑩ Occupational Personality Questionnaire

The OPQ32i asks candidates to look at 104 sets of statements, choosing the statement most and least like them. The test's more complicated sibling, the OPQ32n, has 230 questions. Companies can choose a general profile of the subject, or order specific leadership- or sales-potential reports. **\$30 and up at shl.com or 800-899-7451**

—*Jess Blumberg and S.C.*

they are still predicting top performers.

A note about testing for hourly employees. There, employers might care most about who's punctual and honest. Rock Bottom Restaurants, a 29-store chain based in Louisville, Colorado, switched three years ago from a pencil-and-paper application for its hourly employees to a test from Unicru. (Kenexa and PreVisor are two other assessment companies focusing on entry-level and hourly applicants.) For waiters, it tests for sociability and team orientation; for the back of the house, it asks applicants whether they've worked in on-their-feet jobs before; for all job candidates, it looks at integrity. Applicants in each pool—cooks, bartenders, and so on—are ranked according to their assessment scores, which gives the Rock Bottom management a good starting point. "It's not 100 percent predictive, and that's why we interview people, but it's at least an indicator," says Ted Williams, senior vice president of the brewery division at Rock Bottom. Rock Bottom's turnover for its 6,000 hourly employees has dropped by 20 percent, which Williams thinks is largely because of the system.

STEP 3

➔ In which the process starts to imitate finding World War II spies

In 1943, a pretty countryside residence in Fairfax, Virginia, was renamed Station S and repurposed as a testing site for Office of Strategic Services recruits. In an atmosphere of intense secrecy—candidates were stripped of their clothes and given military fatigues, then driven in a windowless van to Fairfax, where they would invent a cover story and fake name—the OSS studied their performance during job simulations. One test had "couriers" giving candidates a map, which they'd need to memorize in eight minutes. Other exercises included interrogating ersatz prisoners of war, devising propaganda plans, and recovering papers from an agent's room (and, aggravatingly, getting interrupted by a rifle-wielding "German" midway). The tests went on for three and a half days.

Inspired by that work-based approach, corporations such as AT&T starting using assessment centers to select executives. By the late 1950s, the candidate in the gray flannel suit was performing in-basket assessments in which he'd be graded on how

he handled a set of letters, papers, tasks, and telephone calls that mimicked what he'd get on the job.

Today's work samples are essentially updates of those AT&T tests. Work samples are a proven predictor of success and can be simple to arrange. A company can design its own by laying out the criteria for a job and asking a candidate to perform a task based on those criteria. For example: "Explain how you would sell this product to Target, step by step," or "Tell me how you'd improve these lines of C++ code."

At Sterling Communications, a technology PR firm in Los Gatos, California, CEO Marianne O'Connor knows her account reps have to be good at understanding technical information, at figuring out how to pitch to a media outlet, and at writing. Logical enough. So she's started giving job candidates a two-hour test before she even meets with them. It describes a client's technology, identifies a target publication and its readership, and asks a candidate to distill the salient technical points and write a pitch to the magazine. Three staffers review the pitch, and that decides whether the candidate will get an interview. "If they can't write in my business, it's not going to work," O'Connor says.

On the complicated end of the work-sample spectrum, Seymour Adler, the Aon Consulting psychologist, has created a four-hour online exercise called Leader, which Motorola and other companies use to test would-be executives. Candidates see an in box with e-mails that came in the night before, answer phone calls and listen to voice mails, and have access to reports and research. They're asked to tackle tasks like ones they would see on the job, such as solving a conflict between two underlings or leading a team of workers in creating a presentation for the CEO. At the end, Adler's team assesses the candidates on whatever areas the company is curious about—decisiveness, leadership, and so forth—and issues a report to the company. A company called Development Dimensions International offers similar exercises; these take place at one of its 75 assessment centers rather than online. Half-day and full-day job simulations cost from \$4,000 to \$12,000.

AND FINALLY...

➔ Put it all together—without riling your candidates

Dan Weinfurter runs Capital H Group, a human resources consulting firm in Chicago, though he's not an HR guy but an entrepreneur at heart. He founded the accounting and consulting firm Parson Group, which hit No. 1 on the Inc. 500 in 2000 with a four-year growth rate of 27,992 percent, and sold it four years ago for \$55 million. Before that, he was second in command at Alternative Resources, an IT staffing company that was a two-time Inc. 500 honoree. For all he knew about running a company, however, Weinfurter came to the conclusion that he didn't know much about hiring. "I thought I was pretty good at interviewing," he says, "but I was no better, and maybe was worse, than other people. If you're just going through it and trying to guess, you'll guess right some of the time. But you won't be able to guess right often enough to grow a business from scratch."

So at Capital H, he unleashed his on-staff psychologists, who created a hiring system that's a textbook example of the latest hiring research. Let's say Capital H has an opening for a consultant. A group of candidates are interviewed by telephone by the HR manager (or by Weinfurter himself, if the position is very senior), and candidates with appropriate skills and backgrounds are then passed to a local office to meet with local executives. He or she takes the Watson-Glaser Critical Thinking Appraisal, a popular and well-validated cognitive-ability test, and the Devine Inventory, which measures the applicant's traits and tendencies against those of existing Capital H consultants. (See the next page for a sample of questions from Watson-Glaser.) About one in four candidates are then flown to Chicago headquarters, where they spend a full day in behavioral interviews with multiple executives. Finally, applicants are asked to choose a presentation they've done in the past and give that to a group of Capital H execs back at the local office in a work-sample exercise. The executives discuss the candidates until they reach consensus.

Weinfurter figures he spends up to four weeks, and tons of his workers' billable hours, per interview. But he estimates the cost of hiring a bad consultant can be in the millions, considering not just salary but also missed sales and lost

DIG WE MUST SERIOUS ABOUT REFERENCES

REAL
WORLD
STRATEGY

We now require 12 references. This is at the final stage, when we think this person is a fit. We're testing if our gut instinct is correct or not. And more than once, talking to the last person on someone's list has saved us from making a very bad decision.

It can be pretty amusing when you ask for 12 references. Some candidates have an e-mail to us within an hour; some we never hear from again.

When I call references, I start by trying to get them comfortable. I make it clear that what they say will not travel back to the person. Then I often ask, "If you had to pick three words to describe this person, what are the first that come to mind?" It's very interesting, the picture that emerges after you've done eight or nine of these interviews.

I also ask, "If you had a magic wand, what would you change about this person?" I really push, and they usually come up with something: She's late for work all the time, he has difficulty with deadlines, she has trouble getting along with colleagues. Maybe we'll hire the person but learn something that will help in managing him.

There are some people who you can't get to say a word negative about a candidate, and oftentimes we put that to the side because it's not a credible reference.

Before we started this our average length of stay was 2.3 years. Since then it's gone to 4.7 years. That's not saying people don't leave, but we're avoiding the bad fits.

—Andy Levine, president
Development Counsellors International



LET'S TURN THE TABLES

Try a few sample questions from the Watson-Glaser Critical Thinking Appraisal, a highly regarded test of cognitive ability.

THE QUESTIONS

A list of inferences follows a statement.

Mark each True, Probably True, Insufficient Data, Probably False, or False.

1

Two hundred students in their early teens voluntarily attended a recent weekend student conference in a midwestern city. At this conference, the topics of race relations and means of achieving lasting world peace were discussed, because these were the problems the students selected as being most vital in today's world.

- A. As a group, the students who attended this conference showed a keener interest in broad social problems than do most other students in their early teens.
- B. The majority of the students had not previously discussed the conference topics in their schools.
- C. The students came from all sections of the country.
- D. The students discussed mainly labor relations problems.
- E. Some teenage students felt it worthwhile to discuss problems of race relations and ways of achieving world peace.

2

If you think that the given assumption is taken for granted in the statement, mark the statement Assumption Made. If you think the assumption is not necessarily taken for granted in the statement, mark the statement Assumption Not Made.

Statement: We need to save time in getting there, so we'd better go by plane.

- A. Going by plane will take less time than going by some other means of transportation.
- B. There is plane service available to us for at least part of the distance to the destination.
- C. Travel by plane is more convenient than travel by train.

3

For the purpose of this test, assume that everything in the short paragraph is true. The problem is to judge whether or not each of the proposed conclusions logically follows beyond a reasonable doubt from the information given in the paragraph. If you think that the proposed conclusion follows beyond a reasonable doubt (even though it may not follow absolutely and necessarily), mark the statement Conclusion Follows. If you think that the conclusion does not follow beyond a reasonable doubt from the facts given, mark the statement Conclusion Does Not Follow. Remember to judge each conclusion independently.

A study of vocabulary growth in children from eight months to six years old shows that the size of spoken vocabulary increases from zero words at age eight months to 2,562 words at age six years.

- A. None of the children in this study had learned to talk by the age of six months.
- B. Vocabulary growth is slowest during the period when children are learning to walk.

THE ANSWERS

1. **A. Probably true.** Inference from discussions with teachers and classmates. There is insufficient data for making a judgment on the matter. **D. False.** Inference D is definitely false because it is given in the statement of facts that the topics of race relations and means of achieving world peace were the problems chosen for discussion. **E. True.** Inference E necessarily follows from the given facts; it therefore is true.
2. **A. Assumption made.** It is assumed in the statement that the greater speed of a plane over the speeds of other means of transportation will enable the group to reach its destination in less time. **B. Assumption not made.** In order to save time by going by plane, it must be possible to save time, and say nothing about any other specific mode of travel.
3. **A. Conclusion follows.** The conclusion follows beyond a reasonable doubt since, according to the statement, the size of the spoken vocabulary at eight months was zero words. **B. Conclusion does not follow.** There is no information given that relates growth of vocabulary to walking.

clients. "I think the hiring process is the most important process in business, but it's probably the least disciplined in terms of how it's executed across American business," he says.

People who study hiring, and business owners who are passionate about the subject, love to see systems like Capital H's. Candidates may not feel the same way. Certainly you'll have to make concessions in some cases—say you're trying to recruit a CFO from a rival company. "If they've already done a job like this, what's the point of the test? It's not obvious you want to give this to everyone and for every job," Peter Cappelli at Wharton notes. In every case, candidates will have a better attitude toward the process, and the company, if they believe that the hiring methods are respectful, fair, and smart. So use appropriate cognitive tests—don't ask accountants basic math questions. Use only tests designed for the workplace, so that the questions clearly deal with business situations and seem relevant. And explain why you're adopting an approach that to some candidates will seem overwrought: to be fair and quantitative.

There will always be skeptics about this approach to hiring, people who believe their gut tells them more than any structured interview or test could. And while Bill Vogt or Denise Noel or Dan Weinfurter could offer testimonials about the new science of hiring, the point is not that this system has worked in a handful of cases. It's that hundreds of studies have confirmed that testing and structured interviews do a much better job at finding good workers than do regular interviews. Given that, the gut-feel proponents start to seem like people who eschew antibiotics in favor of good old-fashioned bloodletting.

Maybe people don't like to believe that something as crucial to a business as hiring can be reduced to a series of processes. After all, we rely on feeling and judgment to get through our lives, whether to fall in love, keep safe on dark streets, or assess business partners. This science-based approach isn't perfect. It won't anoint every superstar, and it won't bar the door to all of the mediocre players. What it will do is give employers a fuller, more balanced, and fairer view of candidates, and give them a much better shot at hiring the best people. It's still up to employers to make the call on whether to hire or to pass, and that's where feeling and judgment still play a part. But that part now comes after employers have gathered all of the facts. **1**

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