

## IBM's Objective Metrics—A Knowledge Company's Approach to Skills Inventory Management

Edge Nowlin has first-hand experience dealing with the most complex skills issues in business today. As IBM's Americas IT Specialist Profession Discipline Leader, he is part of a team that includes nearly 20,000 IT specialists. "IBM looks at itself as a knowledge company," says Nowlin. "We need to know where that knowledge is."

In 2001, Nowlin set out to implement an online skills measurement system that would improve IBM's ability to pinpoint that knowledge. The skills measurement strategy began with a need to improve success rates for the company's employee certification process. What he learned from the skills measurement experience confirmed what he already believed: to truly make the most of your skills inventory, you must have objective data.

### Traditional Review Process Reveals Mis-assessed Skills

For IBM employees, skills are crucial to career advancement, and IBM certification is not to be taken lightly. For IT specialists, the process requires extensive preparation, interviews, and consensus from multiple decision-makers. "IBM certification has largely been an experience-based process," says Nowlin.

"First, we identify candidates and help them assemble an extensive application portfolio, usually a 40-page document, outlining experience, courses taken, and any other factors. We submit that application to a board, and if the application is accepted, the candidate undergoes a day of three interviews with separate board members. After that, the board members vote on certification.

"Now, here was the problem: We were trying to differentiate our candidates with IBM certification, but in the process, we spent a lot of time trying to drill down to find out if they have skills they said they have. Roughly 70% of the candidates who failed did so because of a skills issue."

### Online Measurement System Delivers Objective Assessments

A large part of Nowlin's solution to the skills assessment issue is a new online assessment system for IBM. This system gives employees access to online assessments, where they are faced with challenging questions and receive an objective score at the end.

"IBM has always had a skills measurement tool as many companies do," says Nowlin. "But the problem is that most assessments ask individuals to rate themselves. Even the most honest person may know only a little about something and feel positive. Then, you get real experts who know how much they don't know, and they often underrate themselves. With an objective online assessment, you get a rating. You get a 1.3 or 4.7 and that means something. One of our goals is to capture that data and put it into our skills database."

### Turning Skills Into Performance—Quality Data Comes First

"In skills inventory management, we have to face several issues," says Nowlin. "First, how do you access your data inventory to pull the information you need? Then, there is the question of how you validate the data. And finally, how do you determine the type of report you can get and who can access that data?"

Having the skills data and knowing where to find it is crucial, according to Nowlin. "Part of the challenge of managing IT skills lies in knowing where to find the right people. If we always knew exactly where the right people were, that would be great. For example, say we need 35 people to go on a major Web project: we might need a Photoshop expert, a Java expert, and a range of other skills. Or maybe we're competing with another company on a project, but we're new in the area. We have to find a group that can build this project, and we have to put our best foot forward. How do most companies, including us, find the people? Usually, it's about interviews and 'who you know.' That's still how it's done, but now we're using assessments and certification to validate skills."

**"IBM has always had a skills measurement tool as many companies do," says Nowlin. "But the problem is that most assessments ask individuals to rate themselves."**

Does the ability to quickly identify people with certain skills mean that the new system can speed up the formation of engagement teams? According to Nowlin, speed is not yet the most important factor. Once the company has the management team in place for a project, they can usually assemble a team in time. “For us,” he says, “it’s knowing that we have the best people possible on the project that’s most important, and that comes from quality data. The reporting function of our skills measurement system is important, but the data comes first. That’s what our system gives us. Part of the secret is, the tests are challenging.”

### **Challenging Skills Assessments Deliver Objective Results**

Recently, IBM conducted a survey among employees that used the new testing system, supplied by Brainbench, a Northern Virginia-based skills measurement company. According to Nowlin, 98% of the people that responded said that tests were a good indicator of skills levels. 83% said that tests were useful in developing skills. 88% wanted tests included as an integral part of their career development program.

“One employee I talked to took a Lotus test. He said it was far more comprehensive than anything he’s seen. He wasn’t sure if he was going to ‘pass.’ And that’s typical. You get one question right, and the test comes back with another question ‘loaded for bear.’ If you have an established passing score, it’s a relief to pass. That’s what makes the [Brainbench] online assessments valuable. They challenge every time, and they give you detailed scoring.

“Right now, we still rely on IBM tests that are currently delivered in the old proctored environment. The trouble is, they only deliver traditional pass/fail results. Our Brainbench system provides detailed scoring, which is very valuable. Once again, it’s the quality of the data that we’re looking for: not just the validation of skill, but the detail of that validation.”

### **Objective Data Increases Productivity**

Since IBM started measuring skills online, the company has had great success with its foundations group. Last year, the company recruited 120 people fresh from college. “For each of these recruits,” Nowlin says, “the company set up a year-long foundations class that covered IBM-related education as well as specific skills they’d be using in the field. So we administered an online Java assessment as a test-out vehicle for the Java part of the class. Half the class certified, and we were able to put them in the field six weeks earlier. That’s a significant decrease in the time it takes to achieve productivity from a new hire.”

### **Skills Measurement, Focused Learning, and the Future**

Skills improvement is an important focus at IBM. The period after an employee takes a test is crucial, says Nowlin. “If someone takes a test and gets lower than expected results, that person’s ready to do something about it. That person’s motivated. Right now, our employees can get the results fast, and the testing system will automatically point them to the right reference materials at Amazon.com based on their assessment results. The key is, the individual is motivated. We don’t want too much time or effort to pass after the test.

We’re looking at combining that education function with IBM education, so that you can provide directly a tool that refers employees to the material or the resources they need. We’re even considering how to build a mentoring program, where someone who needs improvement in an area can be referred to a high scorer—a real person, not just a book. What you get is testing that drives training and education. Online skills measurement opens up a lot of solutions and a lot of possibilities. But first you have to have the objective data. That’s what we need from our system, and that’s what we’re getting.”