Integrating Behavioral-Based Interviewing Into the Curricula

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Abstract

Behavioral-based interviewing (BBI) is based on the premise that past behavior is the best predictor of future performance. Many interviewers of students in the Agricultural and Biosystems Engineering (ABE) Department at Iowa State University use BBI to gain detailed job-related examples from a candidate, and to assess past performance and competencies. One technique of preparing for BBI experiences is the STAR method - examples of competency demonstrations that include a situation or task, the specific action taken, and the result of the action. ABE students, starting their freshman year, develop a "library" of STARs that encompass the 14 competencies central to the ABE outcomes assessment program. Students develop, reflect upon, and update these STARs throughout their academic careers and include them in their electronic portfolios. They use their STARs to prepare for career interviews that use BBI. Integrating BBI and STAR into the curriculum helps students focus and reflect upon their past experiences and how those experiences contribute to competency development their success as practicing professionals.

Introduction

Career interviews for engineering and technology students are evolving from interrogation sessions to structured conversations. This evolution is facilitated by the proliferation of information technology that has automated many of the previously manual tasks such as reviewing resumes and scheduling interviews. This frees recruiters to spend more time networking and building relationships with job candidates (Burton, 2003). The real impetus for this evolution is the realization that past behavior is the best predictor of future performance (Byham and Pickett, 1997). And after all, future performance is what any interviewer is trying to ascertain.

The structured conversation approach to interviewing, commonly referred to as Behavioral Based Interviewing (BBI), aims to discover and examine examples of past behavior through guided questioning. The traditional interview is oriented to revealing personality traits, whereas BBI is oriented to the demonstration of competencies. Competencies are application of knowledge, skills, attitudes and values, and behaviors (Elwell, 1984), and are now the focus of many companies' hiring and employee assessment processes. Typical competencies might include innovation, analysis and judgment, teamwork, and communication. By assessing competencies, the interviewer increases the consistency among interviews to avoid interviewing bias, and allows the interviewer to make decisions based on standard, objective assessment criteria.

Development Dimensions International, Inc., a global provider of competency-based performance management tools and services (DDI, 2004), is a leader in teaching managers how to interview candidates. They call this method Targeted Selection®. While this technique is called by many names, the underlying premise is the same past behavior is the best predictor of future performance.

Traditional interviews often include such questions as: (1) "What are your strengths and weaknesses?" (2) "Why are you interested in working for us?" and (3) "Tell me about yourself?" While the answers may be interesting, they are opinions (even when answered truthfully) and may not predict future performance.

BBI questions, however, emphasize past performance and behaviors. Typical questions in a BBI setting might include: (1) "Think of an occasion when you had to deal with a difficult team member." (2)"Tell me about a time when you had too many things to do and you were required to prioritize your tasks." and (3) "Give me a specific example of a time when you used good analysis and judgment in solving a problem."

Figure 1 gives a comparison of the "traditional" interviewing and BBI. In the BBI approach, the

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interviewer uses detailed job-related examples from a candidate to assess past experience, performance, and competencies. BBI prompts the candidate to provide more than "canned" responses and focuses the interview on past actions, not perceptions. The interviewer can use follow-up questions to clarify an answer or to probe deeper.

Career specialists suggest that applicants answer BBI-type questions through the use of the STAR method. STAR involves providing an example of a past behavior which includes a situation or task, the specific action taken, and the result of the action (Byham and Pickett, 1997). Table 1 provides an example of a student using STAR to answer the question, "Tell me about a time when you showed initiative."

Anecdotal evidence suggests that over 80% of the companies interviewing Iowa State students for engineering and technology positions use BBI to some degree. Therefore, faculty in the Department of Agricultural and Biosystems Engineering (ABE) at Iowa State University have been proactive in integrating BBI and STAR into the Agricultural Engineering (AE) and Agricultural Systems Technology (AST) undergraduate programs. This process has been enhanced by the new ABE outcomes assessment process (ABE, 2005a) initiated by the department. This process involves the evaluation of fourteen competencies (Table 2) through electronic portfolios (Brumm et al., 2003), cooperative education and internship evaluations (Mickelson et al., 2004), and evaluations of ABE graduates two years post-graduation. The fourteen competencies were developed through dialogue with stakeholders -- employers, alumni, parents, faculty, and students (Hanneman et al., 2002).

Integrating BBI and STAR into the Curriculum

BBI and STAR are integrated into the ABE undergraduate curriculum during the first semester. Both the AE and AST programs have a first semester orientation course (ENGR 101 and AST 110) as part of the ABE Learning Community. The courses meet for one hour each week for 15 weeks. BBI and STAR have been integrated into two class sessions of each course.

During the first of these class sessions, students are introduced to the 14 competencies listed in Table 2. Students are first asked to generate a list of skills, motivations and behaviors characteristic of a successful practicing profession in their field. Their list often encompasses the 14 competencies. Next, they are asked to read and reflect on the descriptions of seven of these competencies, those that are mentioned by a majority of the employers of our graduates: Engineering/Technical Knowledge, General Knowledge, Analysis and Judgment, Communication, Continuous Learning, Initiative, and Teamwork. Then students are asked to write a STAR for three of the seven with the requirement that they describe their STAR completely enough to demonstrate the competency.

During the second class session, students are asked to analyze a company job description in order to determine the workplace

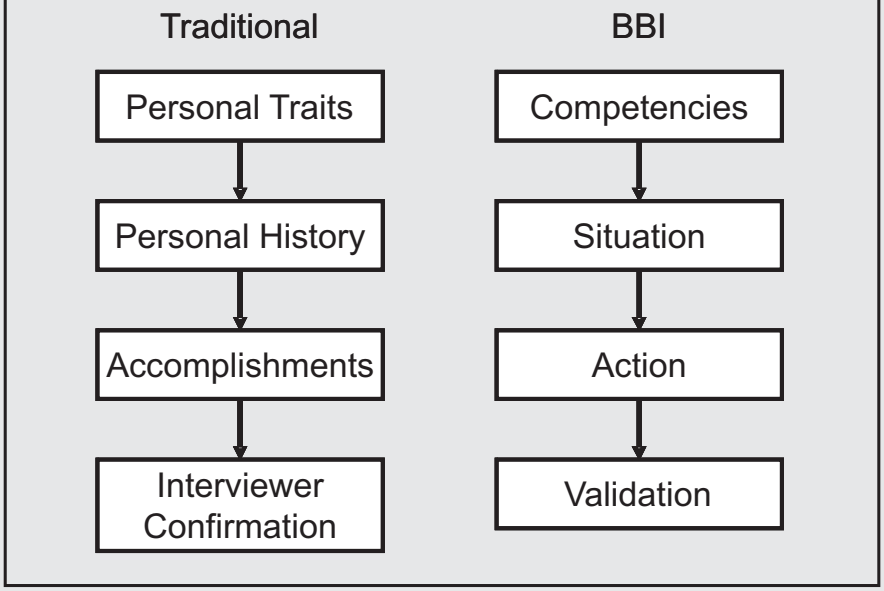

Figure 1. Comparison of traditional interviewing and behavioral-based interviewing (BBI).

Table 1. Example STAR (ECS, 2005).

Interview Question	Tell me about a time when you took initiative.
Situation / Task	I was a member of the student organization, XYZ. We planned to have a float for VEISHEA [an Iowa State student-run festival]. Our president stopped attending meetings or communicating with the other officers. Attendance dropped and nothing happened at meetings. Our organization had been on campus for a long time and had a great reputation.
Action	Although I was not an elected leader, I asked two officers to meet me at the [student] union to talk about the float.
Result	At the meeting, I mentioned that XYZ had a great reputation and my Dad talked about XYZ when he was a student. The vice president agreed to meet with the president to clarify his role. We learned the president was having problems and was relieved that the vice president was willing to assume leadership. The three of us looked at the requirements in the by-laws and took the necessary steps to change the leadership to the vice president. I contacted the members who stopped attending. We got a late start, but we pulled together and had the float in the parade.

Table 2. The 14 ISU Competencies in the ABE departmental outcomes assessment process (ABE, 2005a; ABE, 2005b).

Engineering/Technical Knowledge	Innovation	Teamwork
General Knowledge	Cultural Adaptability	Integrity
Continuous Learning	Analysis & Judgment	Professional Impact
Quality Orientation	Planning	Customer Focus
Initiative	Communication	

competencies necessary for resume development/modification, interview STAR preparation, and career success. After evaluating the job descriptions for key phrases that relate to the competencies, the student chooses one of the more frequently mentioned competencies to develop a STAR for interviewing preparation.

The focus on BBI and STAR are continued during the second semester for each program via one credit "experiencing" courses (AE 110 and AST 103). The purpose of these courses is to expose students in a hands-on, interactive way to each of the programs' options. Students are required to develop a STAR for each competency every week. Since the class is broken up into peer groups, group discussion and evaluation take place each week related to the STARs. Students also upload each STAR to their electronic portfolio.

Another activity in these courses involves peer mentors from the ABE Learning Community conducting "mock" BBI sessions with course participants. Both gain valuable experience in this exercise. As a follow-up, interviewer and interviewee rate and reflect on the experience and discuss it at their regular peer group meetings.

Student Use of STAR

Based on course activities completed during the first year in the program, students are well prepared for BBI. Upper-level students in both programs can refer to their STAR and BBI assignments to help prepare for co-op, internship, or summer employment interviews. In a student focus group about interviewing, one student remarked: "They asked me a question just like one we did in mock interviews. I used the STAR I used then." This response is typical of AE and AST students' experience with BBI they are much more comfortable during employment interviews than other students that have not been introduced to STAR and BBI.

Students are also asked to reference their STARs to update or replace them as they gain new work or life experiences that better demonstrate a certain competency. Another important benefit of having students complete STARs is that these encourage students to reflect on their past experiences to help chart their future academic and life direction. Since the students store these in electronic portfolios, they are easily accessible for making additions and updates.

Success in the workplace depends on much more than academic knowledge. The 14 competencies, derived from stakeholder dialogue, define what it means to be a successful practicing professional. The act of creating a STAR forces students to reflect on their experiences and how they relate to competency development and demonstration. "Critical reflection on one's practice and understanding leads to higher-order thinking," and "action without reflection is unlikely to produce learning" (Shulman, 2002).

Outcomes Assessment and STARs

The ABE departmental outcomes assessment process is based on competencies. STARs are essentially a demonstration of a particular competency. STARs are used by students as artifacts in their electronic portfolio, which is a collection of artifacts that demonstrate the development of the 14 competencies. ABE students are required to have an acceptable portfolio as a requirement for graduation. However, a portfolio consisting entirely of STARs would not be an acceptable demonstration that a student has developed the competencies. There needs to be examples of actual student work that provide verification that the competency was achieved. Other artifacts could be, for example, classwork, design projects, and/or video of presentations. None the less, some experiences may be difficult to present in any manner other than STARs, because the demonstration of a competency may not result in an artifact that could be loaded into an electronic database.

As students begin to create their portfolios, they generally have not had enough experiences to generate enough artifacts to cover all the competencies. STARs fill that gap nicely. They give the students something to fill the "holes," and provides them with the opportunity to reflect upon and learn from the experiences. Many of the STARs initially placed in the portfolio are replaced by more concrete artifacts as time goes on.

Students' portfolio artifacts (including STARs) are examined during the process of development, as they progress from freshman to senior. They receive feedback on their artifacts from the instructors in second- semester "experiencing" course, as well as from the instructors of required sophomore and junior seminar classes in which they work on their portfolios. This feedback helps students understand how well their STARs encompass the Key Actions of the competency, and thus how well it demonstrates the competency.

Summary

Behavioral-based interviewing (BBI) is based on the premise that past behavior is the best predictor of future performance. Many interviewers use BBI to gain detailed job-related examples from a candidate, and to assess past performance and competencies. One technique of preparing for BBI experiences is to use the STAR method - examples of competency demonstrations that include a situation or task, the specific action taken, and the result of the action.

Students in our department, starting their freshman year, develop a "library" of STARs that encompass the 14 competencies central to our outcomes assessment program. Students develop, reflect upon, and update these STARs through their academic careers. They use their STARs to prepare for career interviews that use BBI. It supplements their demonstration of competency development in their electronic portfolios, a key component of the ABE outcomes assessment process.

Integrating BBI and STAR into the curriculum helps students focus and reflect upon their past experiences, and how those experiences contribute to competency development and their success as practicing professionals. Such reflection promotes higher order thinking and is a crucial component of learning.

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