Stop Asking Students to "Strongly Agree": Let's Directly Measure Cocurricular Learning

Julie M. Tucker challenges the common use of self-reported data to measure out-of-classroom learning and recommends that we ask students to demonstrate what they have learned from their cocurricular activities.

By Julie M. Tucker

IMAGINE WALKING INTO a final exam, sitting down, and finding that the test consists of only a few Likert scale questions. The top of the exam reads "Rate the degree to which you agree or disagree with each of these statements: 'I learned the function of the central nervous system' and 'I understand the difference between mitosis and meiosis.'" The very idea of this occurring in the classroom is unfathomable, because professors would never administer such an exam. Rather, faculty members test students' knowledge to measure whether students learned what was intended. Instead of scaled items, exam questions would ask "What is the function of the central nervous system?" or "Describe the phases of mitosis and meiosis and the differences between them." The professor would read the answer to determine whether the student sufficiently mastered the material. Classroom assessment requires students to demonstrate what they know rather than to circle a point on a scale to indicate whether they learned.

Think now about cocurricular assessment. Imagine students participating in a weeklong service trip and upon returning to campus, a staff member asks them to complete an assessment. The top of the sheet reads "From this experience, rate the degree to which you agree or disagree with these statements: 'I understand how power and privilege function in society' and 'I can articulate the root causes of homelessness.'" Many cocurricular assessments are similar to this example, attempting to measure learning through self-reports on Likert scales. So why is it that the use of self-reported data to measure out-of-classroom learning does not sound as preposterous to us? Why are self-reported data, like the above Likert scale, commonplace and accepted as evidence of co-curricular learning? Our ability to measure learning is limited by the caliber of the instrument we use. Out-of-classroom assessment should not continue to ask students to report whether they learned; it must ask them to demonstrate what they have learned. To do so,

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practitioners must employ direct measures more frequently, not only to improve assessment but also to help students continue to learn from their cocurricular experiences.

Cocurricular outcomes-based assessment can take many forms, but practitioners tend to rely on self-reported data that ask students to "agree" or "disagree" about whether they learned something from a particular program, like a service-learning trip. Asking students to "agree" that they learned something specific from a program is not measuring student learning; rather, it's measuring what students *think* they know. Relying solely on indirect measures cannot be our standard approach to measuring cocurricular learning; practitioners should also incorporate direct measures into assessment instruments. Fortunately, converting measures from indirect to direct is not difficult. Rather than posing the service-learning outcomes on a Likert scale, we could directly measure outcomes in open-ended questions like: "How do power and privilege function in society?" and "What are the root causes of homelessness?" Students would write their answers, and staff would read responses to determine whether students sufficiently mastered the material. These direct measures allow practitioners to observe exactly what students know instead of relying on self-reported data.

Why Direct Measures Matter

THE DISTINCTION BETWEEN DIRECT AND INDIRECT measures is important. In their book *Assessment Essentials: Planning Implementing, and Improving Assessment in Higher Education*, Catherine A. Palomba and Trudy W. Banta describe indirect measures as asking "students to reflect on their learning rather than to demonstrate it" whereas direct measures "require students to display their knowledge and skills as they respond to the instrument itself" (pp. 11–12). In an overview of the literature on self-reported data, Nicholas A. Bowman highlights a disparity between what students think they know or can do and what they actually know or can do. Similarly, in *Psychological Science in the Public Interest*, David Dunning, Chip Heath, and Jerry M. Suls discuss the tendency for people to overestimate their skills and abilities, often rating themselves higher than what performance data suggest. What also undermines the value of self-reported data is something called socially desirable responding. In a recent article in *New Directions for Institutional Research,* Nicholas A. Bowman and Patrick L. Hill explain that students may not want to answer questions in unfavorable ways, leading them to overreport positive characteristics and underreport undesirable ones. Thus, questions about learning during college become susceptible to socially desirable responding because indicating that one has learned is more favorable than indicating that one has not. Given these problems, we see reason to be skeptical of self-reported data, and suggest that practitioners use direct evidence of student learning when possible and appropriate.

Examples of Direct Measures

IN THE PAST TWO YEARS, SEVERAL DEPARTMENTS within Student Development at Denison University have implemented direct measures.

Our Academic Support & Enrichment Center hosts an orientation session for incoming students with disabilities. The session discusses campus resources, the transition to college, and the process for requesting accommodations. To measure what students gain from this session and whether the learning outcomes are achieved, the Center schedules individual meetings with students two weeks later, at which time the staff member asks: "What is your understanding of the accommodation process as it was described during orientation?" The staff member takes notes and scores students' answers using a simple rubric the staff developed together.

This assessment could have easily taken the form of "on a scale of 'not at all' to 'completely,' rate the degree to which you understand the process of requesting accommodations." However, by using direct measures, the staff observes specifically what students do and do not comprehend from the session. They observe that many students could only partially describe the process. Thus, while students' responses on a scale may have indicated they knew the material, data from this direct measure suggests otherwise.

A similar assessment occurs at our Health Center. One learning outcome for individual appointments is that students will be able to articulate their medical diagnosis and any red flags to report back to Health Services should they reoccur. To measure whether this outcome is achieved, at the end of the appointment a nurse asks students to articulate their understanding of the diagnosis and any red flags, then notes whether the student sufficiently articulated an answer. Doing this allows Health Center staff to see what students learn during their appointments and provides another

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opportunity to reeducate students if their understanding of the information is incorrect or incomplete.

International Student Services also utilizes direct measures to determine what international students learn from their orientation program. One learning outcome for this program is that students can identify immigration regulations and procedures pertaining to their F-1 status. To measure students' understanding of the information, the office administers a survey with multiple choice, true/false, and short answer questions. Through questions such as "What is the I-94 card?" the assessment measures what content students understand and which aspects they do not retain. Had the assessment asked students to indicate whether they learned, many students might have reported they had, but the direct measures survey allows the office to see that, in fact, many students insufficiently retain all the information, leading the director to make significant changes to the structure of the program.

HAD THE ASSESSMENT ASKED STUDENTS TO INDICATE WHETHER THEY LEARNED, MANY STUDENTS MIGHT HAVE REPORTED THEY HAD, BUT THE DIRECT MEASURES SURVEY ALLOWS THE OFFICE TO SEE THAT, IN FACT, MANY STUDENTS INSUFFICIENTLY RETAIN ALL THE INFORMATION, LEADING THE DIRECTOR TO MAKE SIGNIFICANT CHANGES TO THE STRUCTURE OF THE PROGRAM.

Benefits of Direct Measures

THE DATA FROM DIRECT MEASURES allow us to improve programs and services in ways that indirect data cannot. For one, direct measures allow us to see exactly what students know. Had our staff merely asked students to agree or disagree with statements, we wouldn't have learned which immigration regulations international students were not retaining, which red flags or diagnoses students did not fully understand at the conclusion of a Health Center appointment, or which aspects of requesting accommodations students with disabilities only partially recalled. Because of this, utilizing direct measures helps practitioners observe for themselves exactly what students learn and do not learn from a program, allowing them to make changes to programs more precisely in ways that will help educate students more effectively in the future.

Another major benefit of direct measures, particularly in the Academic Support and Health Center examples, is that the assessment itself can serve as another opportunity to educate and engage students. When students express inaccurate information, staff can immediately clarify misunderstandings to reeducate students.

As busy practitioners, we gravitate toward indirect measures because they are quick and comfortable. It's easy to attach a learning outcome to a Likert scale and tabulate the percentage of students who agree with a particular statement. However, the trade-off we make when we do so is that the assessment measures what students report they have learned without ever determining for ourselves what they have actually learned.

Admittedly, data from direct measures can be more time consuming to analyze. Rather than quickly calculating the percentage of students circling "strongly agree," staff might need to read responses to open-ended questions or examine multiple-choice items to determine whether the student achieved the outcome. While this examination of data may be slightly more labor intensive, it is also more informative, trustworthy, and actionable, allowing practitioners to discover exactly what students know and do not know—providing practitioners with the information needed to improve their programs and increase student learning.

While many higher education practitioners recognize that programs, services, and initiatives must be connected to intentional learning outcomes, we must also use robust and rigorous measures when assessing the mastery of learning outcomes in cocurricular programs and experiences. Our findings are only as good as the instruments we use to obtain them, and the

limits of self-reported data stifle our ability to measure student learning, which then impedes our ability to improve programs and services.

Notes

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