



Using Multiple Assessment Methods to Explore Student Learning and Development Inside and Outside of the Classroom

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January 15, 2002
From NASPA's NetResults

Because learning and development occur over time and because all students don't learn or develop what an institution values at precisely the same time or under the same kinds of pedagogy or educational experiences, assessing student learning and development is the responsibility of both academic and student affairs. What some students learn in the classroom, other students may learn during their participation in co-curricular activities. What students learn in a course or program of studies may be deepened—even challenged—in their residential life experiences or in their community service work, for example. Assessment is a means of discovering—both inside and outside of the classroom—what, how, when, and which students learn and develop an institution's expected learning outcomes. Interpretations of assessment results enable an institution to verify how well it is achieving its desired outcomes, as well as to determine how it will improve the quality of education to improve desired outcomes.

For example, if an institution asserts it develops “ethical decision making,” what evidence exists inside and outside of the classroom that students' decision making is founded on or incorporates ethics? Do students engage in ethical decision making in courses that focus on ethics but don't engage in ethical decision making when they participate in co-curricular activities? Such assessment questions call for a collaborative commitment between academic and student affairs that provides institutions with the opportunity to deepen and widen their institutional understanding of how well students achieve what an institution asserts it teaches or develops.

Once academic affairs and student affairs reach consensus on a desired learning outcome they wish to assess and the level of expected performance, they need to identify or design multiple assessment methods that will provide evidence of when and how well students develop that desired outcome. What are some methods that institutions can use or develop to track learning outcomes? Some methods that provide direct evidence of student learning and development include the following:

- portfolios that collect student work over time and demonstrate students' abilities to monitor and reflect on their work, providing longitudinal evidence of student learning and development
- course-embedded assignments, providing evidence of how well students transfer learning into a new context

- capstone projects, providing evidence of how well students integrate and apply principles, concepts, abilities into a culminating project
- observations of student behavior, providing evidence of how well students practice or apply an ability, such as how they participate in collaborative problem solving
- internally or externally juried reviews of student projects or performances, providing evidence of students' problem-solving abilities
- externally reviewed internships, providing evidence of students' problem-solving abilities in a work environment
- performance on a case study, along with students' analysis of how they solved the case study, providing evidence of students' abilities to apply, synthesize and solve problems. Case studies may be used over time to track the development of students' knowledge or abilities
- essays blind scored across units, providing evidence of students' abilities to represent ideas, solve problems, synthesize
- locally designed tests, providing evidence of how well students' achievement matches institutional expectations
- standardized or national licensure tests, providing evidence of student achievement based on norms established outside of an institution

Methods that provide indirect evidence of student learning are further removed from students' work during their course of studies, yet they serve to complement direct methods by providing another lens through which to understand how students learn and develop. Interpreting results of one or more indirect methods—in conjunction with one or more direct methods—contributes to a deeper understanding of who, when, how, and which students learn desired outcomes. Some indirect methods are the following:

- alumni, student, or employer surveys, providing self-reports or reports from those who observe or work with students during their studies or after they graduate
- student focus groups, providing interpretations or perceptions of student learning
- graduate follow-up studies, providing evidence of how well an institution prepared students for advanced work
- percentage of students who go on to graduate school, providing evidence of how well an institution prepared students for advanced work
- retention and transfer studies, providing evidence of institutional success
- job placement statistics, providing evidence of how well an institution has prepared students for entry into the workplace

In addition, there may be other kinds of indicators or patterns within an institution that, together with direct and indirect methods, assist in interpreting students' achievement. These might include students' course-taking patterns, their majors, their levels of participation in co-curricular activities, their participation in learning communities that bring students together to discuss and solve or address certain kinds of issues. Triangulation, drawing together interpretations from several sources, aids in explaining how and why and which students learn and develop desired outcomes. Information through multiple lenses contributes to developing a narrative that tells a story about

student learning so that institutions can identify successful learning experiences, as well as improve upon learning experiences to enhance student learning.

Let's look at how multiple sources of evidence might work together to help an institution understand how well students develop ethical decision making. Interpretations of patterns of problem solving in student portfolios could provide evidence about how well students make ethical decisions in solving those problems. Analyses of students' self-reflective pieces in these portfolios might provide yet another kind of evidence. Complementary indirect methods, such as self-reports during focus group meetings, or student surveys, might provide additional evidence about students' ways of thinking as they solve particular kinds of problems. Simultaneously, interpreting course-taking patterns might shed light on why some student populations or students in certain majors show a greater inclination to engage in ethical decision making.

Interpretations of multiple assessment results contribute to a comprehensive understanding of how well and under what pedagogies or educational experiences students learn what an institution values. It may be, for example, that students' inability to make ethical decisions beyond what is required in a course that focuses on this attribute results from the fact that there are inadequate opportunities for students to develop or practice this disposition both inside and outside of the classroom. It may be that students who enroll in certain majors or who take certain kinds of courses or participate in certain kinds of campus activities show a greater inclination to make ethical decisions than other cohorts of students. Or it may even be that students' ethical decision making becomes more fully developed after graduation when they face workplace issues that trigger them to draw upon principles they may have learned in the course of their education. In that case, focus group discussions or surveys conducted after graduation may provide important information about the enduring effects of certain aspects of their education.

Interpretations of direct and indirect assessment methods enable an institution to identify effective pedagogy and educational practices, as well as identify where pedagogy and practice can be improved or innovations developed to more greatly assure that students' learn or develop desired outcomes. Interpretations that indicate there are insufficient opportunities to develop students' ethical decision making, for example, may draw academic and student affairs together to more intentionally and consistently link courses with co-curricular activities. Such a development would be designed to transfer in-class learning and reflection with out-of-class learning and reflection.

Discovering when and how and which students learn and develop an institution's desired outcomes rests with those in academic and student affairs whose teaching spans students' careers. Most importantly, this collaboration among colleagues becomes the means to institutionalize learning about student learning.

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