Chapter 2

BEGINNING WITH DIALOGUE ABOUT TEACHING AND LEARNING

It is essential for any organization, academic or not, to assess the extent to which individual work contributes to collective needs and priorities. No organization can function effectively as a collection of autonomous individuals in which everyone pursues personal priorities and the overall achievements consist, in essence, of a casual, nonoptimal aggregate of activities. If universities are to have the resilience and adaptability they will need in the decades to come, they must find better ways to make individual faculty members' work contribute to common organizational needs, priorities, and goals.

—Ernest Lynton, 1998

OVERVIEW: This chapter focuses on the coordinating role of institution- and program-level assessment committees that initiate, orchestrate, and sustain cycles of inquiry into student learning. To root assessment practices into teaching and learning, these committees initiate rounds of dialogue that lead to consensus about shared expectations for student learning, followed by collaborative strategies that explore the curricular and co-curricular coherence that contributes to these expectations. Institution- and program-level representations of the landscape of students' learning opportunities become the bedrock upon which assessment methods and practices are shaped. The Worksheets, Guides, and Exercises at the end of this chapter are designed to (1) establish collaboration as a principle that underlies the work of assessment committees and their relationship with members of the academic community; (2) promote institution- and program-level dialogue about teaching and learning as the context for embedding assessment; and (3) guide the development of visual representations that document where and how students learn what an educational community values.

THE CONTINUUM OF LEARNING: BEYOND AN AGGREGATION OF COURSES, CREDITS, AND SEAT TIME

With the exception of a small percentage of institutions in the United States that provide narrative transcripts of students' achievement, providing contexts for students' learning, typically colleges and universities record student achievement through a system of numbers and grades. Number of courses, number of credit hours, and grades document student learning. For example, somewhere in the range of 120 to 135 credits equal an undergraduate degree that is, in turn, divided into credits and courses delineating majors, minors, concentrations, electives,

and general education. At both the graduate and the undergraduate levels a certain number of courses or credits certifies a focus of learning—an area of specialization in graduate school, for example, or a minor in undergraduate school. This number-grade system is based on the assumption that students progressively transfer and build upon previous learning as they advance through courses.

More than an aggregation of courses and credits, learning is a process of constructing meaning, framing issues, drawing upon strategies and abilities honed over time, reconceptualizing understanding, repositioning oneself in relation to a problem or issue, and connecting thinking and knowing to action. Institution- and program-level assessment extends inquiry about student learning beyond students' achievement in individual courses to their achievement over time. This chapter describes structures and strategies for institution- and program-level tasks focused on

1. identifying collective expectations for student learning;
2. verifying how well pedagogy, the design of curriculum, co-curriculum, instruction, and other educational experiences or practices intentionally contribute to students' achievement of these expectations.

The tasks described in this chapter are essential for embedding assessment into the processes of teaching and learning. Further, the initial ways in which members of an academic community work together to identify shared expectations for student learning pave the way for the collective dialogue, tasks, and decisions that characterize assessment as a core institutional process.

A FOCUS ON INTEGRATION

A focus on institution- and program-level learning moves beyond students' achievement in single courses to their achievement over time. This focus, then, examines the integration, rather than the separation, of the three domains of learning identified by Bloom and collaborators (1956); later extended by Krathwohl, Bloom, and Masia (1964); and more recently revised by Anderson and Krathwohl (2001):

1. The *cognitive domain,* involving the development of intellectual abilities: knowledge, comprehension, application, analysis, synthesis, and evaluation, such as a medical student's knowledge of anatomy, a graduate linguistic student's abilities to select and apply a method of discourse analysis to a text, or an undergraduate business students' evaluation of multiple solutions to a problem in a case study
2. The *psychomotor domain,* involving the development of physical movement, coordination, and sets of skills, such as the intricately timed movements of a dancer, the precision of a neurosurgeon, or the task-centered procedures involved in human-computer interactions
3. The *affective domain,* involving the development of values, attitudes, commitments, and ways of responding, such as valuing others' perspectives, responding to situations that disadvantage a group of people, exercising tenacity in practicing an ability to improve it over time, or demonstrating a passion for learning

The integration of these three domains, represented in the area of overlap in Figure 2.1, illustrates the focus of institution- and program-level assessment: students' construction of meaning represented or demonstrated through their interactions, responses, commitments, creations, projects, products, research, interpretations, and chronological self-reflection.

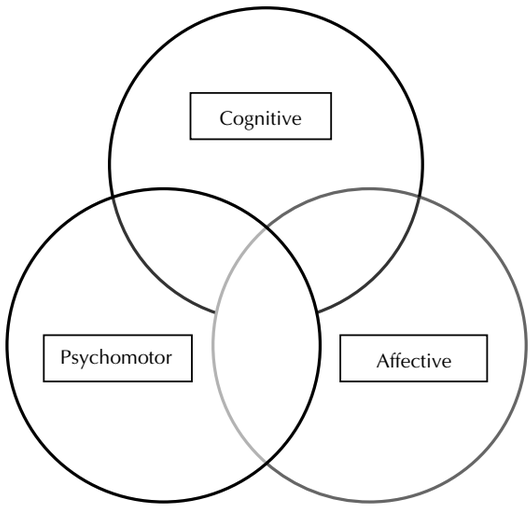

FIGURE 2.1 Integrated Learning

An architectural student needs to demonstrate more than the ability to draw: the ability to draw does not by itself define an architect. Knowledge and understanding about the properties of building materials, environmental and climatic conditions, and building codes, for example, as well as a predisposition to research limitations of a particular building site, contribute to an architect's final design. Faculty who teach drawing courses assess architectural students' ability to design a structure; faculty who teach environmental courses assess architectural students' knowledge about how environments limit designs. Program-level assessment focuses on how students integrate their learning across these and other courses to become architects. Identifying appropriate times to assess for integrated learning, then, defines the role of institution- and program-level assessment.

COORDINATING COMMITTEES

Reaching consensus about collective expectations for student learning at both the institution and program levels marks the first stage of the actual assessment process. Initiating this first stage is, typically, the role of a coordinating body—an assessment committee—that seeks community consensus about expectations for student learning based on an institution's mission, purpose, and values. Generally, there are two levels of assessment committees within a college or university:

- A campus-wide assessment committee
- Program-level assessment committees (also established in schools, divisions, departments, or services)

A Campus-Wide Assessment Committee

A campus-wide assessment committee develops an institutional student learning assessment plan (see pages 4–5 in Chapter 1). This plan, often developed in concert with other constituencies of an institution and in collaboration with a college or university institutional research and planning office, develops a timetable that triggers annual cycles of inquiry into student learning at both the institution and program levels. A campus-wide committee becomes the structure that sustains assessment of student learning across an institution.

Generally, members on this committee serve term appointments, two to three years, after which a new representative from each constituency joins the committee for a term period. There may well be permanent members such as a representative from institutional research or the institution's vice president of academic affairs. Rotational membership broadens institutional understanding of assessment over time. Diverse membership on this standing committee also assures that there are sustained conversations about student learning and achievement throughout the institution and among the various contributors to students' learning. The following list includes those who might serve on a campus-wide assessment committee or in an advisory capacity:

- Institution's chief academic leader
- Representative from an institution's faculty and staff governance
- Representative from each academic program, department, division, or school within an institution
- Representative from academic support services
- Representative from student affairs
- Representative from library and information resources
- Full- and part-time graduate and undergraduate student representative
- Teaching assistant representative
- Student tutor representative who experiences firsthand the levels of difficulties students confront in learning
- Representative from the local community who educates students in internships, cooperative education programs, or community service
- Representative from alumni
- Representative employer who contributes knowledge about what students bring to their employment, as well as identifies new abilities students will need to bring into the workplace or into civic life
- Member of an institution's business or advisory board
- Representative from institutional research and planning who provides guidance and support along the life of the assessment process

As you will read in this and the remaining chapters, over time, campus-wide assessment committees

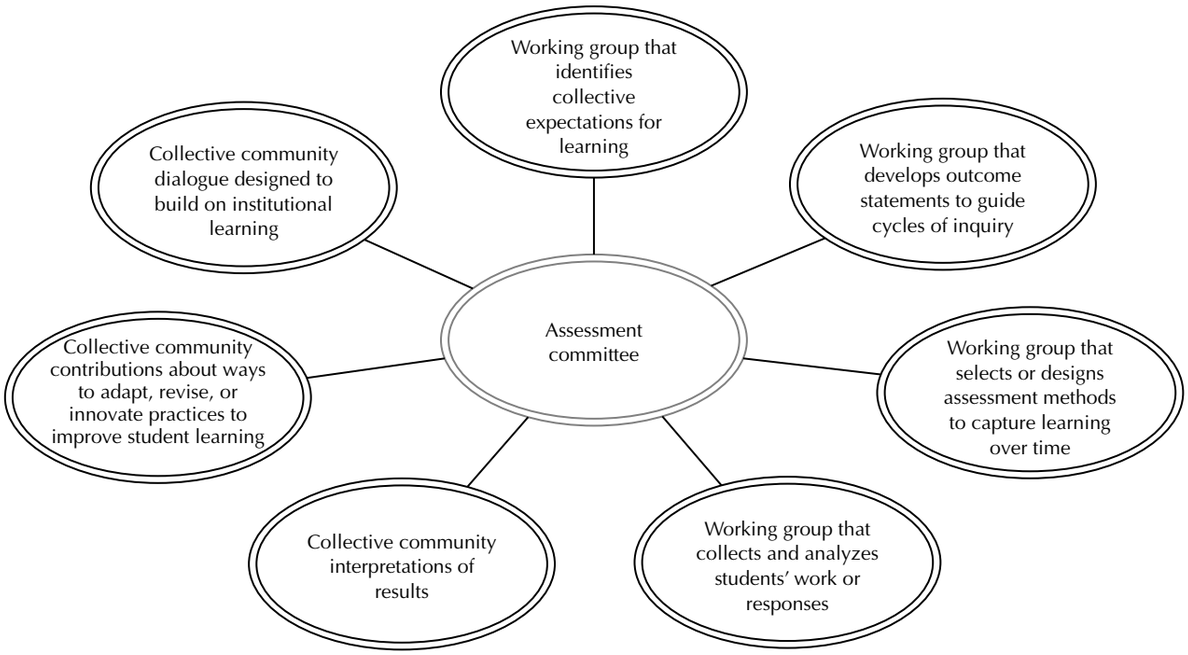

FIGURE 2.2 Assessment Committee Core Working Groups and Tasks

form or appoint core working groups, task forces, or cluster groups, consisting of faculty, staff, administrators, students, and others who contribute to students' education, to carry out specific assessment tasks, as represented in Figure 2.2. An assessment committee and its working groups sustain an institutional commitment to assessment through the following tasks:

- Reaching consensus about what the educational community expects students to represent or demonstrate along the continuum of their learning
- Designing or selecting methods to capture students' learning
- Collecting and analyzing assessment results
- Collectively interpreting assessment results and engaging in community dialogue about ways to redesign, adapt, or innovate educational practices to improve patterns of student weakness revealed in assessment results
- Establishing new cycles of inquiry to ascertain how well implemented changes improve student learning
- In collaboration with teaching and learning centers, organizing occasions to build institutional learning based on assessment results or on innovations in educational practices designed to improve student learning

Program-Level Assessment Committees

Working in much the same way as the campus-wide assessment committee, program-level assessment committees may act as a committee of the whole program or distribute tasks through core working groups. In large programs, schools, or divisions, a central committee that focuses on core learning for students studying in that school may establish satellite committees that focus more specifically on assessing learning in areas of specialization, such as in a school of natural sciences. Program-level committees also consist of broad representation from their educational constituencies and contributors, including students and representatives from advisory boards, professions, or organizations in the local community. In addition to considering representation from the pool of constituencies listed on page 33, program-level committees might draw membership from the following:

- Administrative heads of individual departments in a program, school, or division

- Full- and part-time faculty who teach in programs
- Faculty from graduate schools who bring perspectives on accepted students
- Laboratory assistants
- Graduate assistants
- Graduates from the program
- Employers who directly hire graduates of a program

Similar to the responsibilities of a campus-wide committee, described on page 34, the tasks of program-level committees follow the same inquiry process as that of a campus-wide committee. In both campus-wide and program-level committees, dialogue about teaching and learning and students' achievement based on those processes ensures that assessment reflects educators' values.

DIALOGUE FOCUSED ON EXPECTATIONS FOR STUDENT LEARNING

Marking the first phase of a campus-wide or program-level assessment plan is dialogue focused on identifying shared expectations for student learning:

- What do members of a college or university and members of specific programs expect their students to be able to demonstrate or represent based on pedagogy, the design of the curriculum, co-curriculum, instruction, other educational opportunities and practices, and the use of educational tools?
- What should students to be able to demonstrate or represent at points along their studies based on these educational practices?
- What do the curricula and other educational experiences "add up to"?

These kinds of questions initiate institution- and program-level dialogue that eventually leads to consensus about what members of an academic community wish to explore along students' chronology of learning, such as their ability to perform the following tasks:

- Reason quantitatively in different kinds of contexts outside of quantitatively based courses
- Solve complex global problems through interdisciplinary perspectives
- Integrate general education learning into their major fields of study
- Apply disciplinary habits of mind and ways of behaving in solving a problem

A core working group within an institution-level or program-level assessment committee might be appointed to respond or gather responses to these kinds of questions. There are a couple of ways this core working group might progress through this consensus-building phase:

1. A core working group of a campus-wide or program-level committee might draft responses to these kinds of question. To focus on institution-level or program-level core curricula, a committee might appoint, select, or elect a more specialized group consisting of individuals who specifically teach courses in an institution's or a program's core curriculum or who contribute to it through programs and services such as representatives from academic support services.
2. A core working group (or the committee as a whole) might schedule several occasions for community dialogue to address these kinds of questions, creating cross-disciplinary and cross-functional groups (such as academic affairs and student affairs groups). These occasions for dialogue also contribute to and foster collaboration, a key ingredient in an institutional commitment to assessing for learning that values collective and diverse contributions to student learning as students construct meaning over time.

Positioning assessment as a collaborative process begins in this initial phase of information gathering. The following strategies also engage the wider community:

1. Posting results of core working groups' responses or the results of community dialogue on a campus Web site
2. Inviting larger response—even from other constituencies outside of a campus or program who contribute to students' learning or have a vested interest in their learning
3. Redrafting and posting a final list of expectations for student learning on a campus Web site

Building institutional knowledge across the assessment process promotes dialogue about teaching and learning and the practices that contribute to students' learning.

Program-level assessment committees also contribute to institution-wide dialogue about shared expectations for student learning. Program-level curricula and educational opportunities contribute to institution-level expectations for student learning. For example, a university comprised of schools or divisions may structure occasions for interrelated dialogue about how schools or divisions and the separate programs or departments within them contribute to university-wide expectations for student learning. Specifically, if a university asserts that its students explore and are aware of the ethical dimensions of their decisions, then verifying that schools, divisions, and their programs contribute to the development of this attribute—beyond a required course—becomes a focus of dialogue. On the other hand, an institution's focus on developing leadership abilities and qualities may, in turn, contribute to a program's focus on that quality as well. As is shown in Appendix 2.1 (referenced in Box 2.1), a curriculum map is a way to visualize this interdependent relationship that fosters student learning through multiple learning opportunities.

Program-level dialogue also focuses on identifying disciplinary, cross-disciplinary, or professional expectations for fields of study. That is, program-level dialogue focuses on discipline-bound expectations. Thus, for example, members of a biology department, together with students, members of an advisory board, and local biologists, might agree that they expect students to communicate disciplinary principles and concepts to different audience levels—from expert to lay audiences. They might also agree that students should be able to demonstrate that they practice disciplinary procedures and ways of knowing and behaving that characterize the work of biologists solving representative kinds of problems.

DIALOGUE FOCUSED ON VERIFYING EXPECTATIONS

- How intentionally do members of an academic community provide opportunities for students to learn what an institution and its programs assert they teach or inculcate?
- How do faculty, staff, and other contributors to student learning build on each others' work?
- Do students have multiple and diverse opportunities to build on previous learning, receive feedback, and reflect on their progress toward achieving what an institution and its programs expect?
- How do academic programs, services, and educational opportunities promote institution- and program-level understanding, abilities, habits of mind, ways of thinking, and behaving?
- What educational processes and experiences contribute to and reinforce collective educational expectations?

Bringing to the surface and agreeing upon shared expectations for student learning at both the institution and program levels pave the way for a second level of community dialogue. This level focuses on exploring where, when, and even how the design of curriculum, co-curriculum, instruction, pedagogy, and educational opportunities intentionally promotes these shared expectations. Specifically, it examines *coherence*—how well collective expectations translate into intentional educational practices, providing multiple and varied opportunities for students to learn. These kinds of conversations extend across academic programs and services, across the co-curriculum, and even into the surrounding local community that educates our students in internships, residencies, cooperative learning experiences, field experiences, community service, and work-study opportunities.

This kind of dialogue also may reveal gaps in students' opportunities to learn. For example, within a department or program, colleagues may believe they have adequately sequenced courses in a major program of study based on a developmental model of how students learn. However, a collective look at course content, curricular design, and pedagogy might reveal there are insufficient opportunities for students to build upon or use previous learning. Courses may exist as separate entities, disconnected from students' previous learning. Students may be responsible for memorizing formulas, principles, or concepts in one course in a major program of study with little opportunity to practice, apply, and extend this learning until later in their studies. Without threaded opportunities in the curriculum or related educational experiences to apply this memorized information, students will most likely be unable to recall, much less apply, what they once memorized. As a result, learning for students in this case remains course-bound; opportunities to use and build on

initial learning simply do not exist between this course and a final course.

MAPS AND INVENTORIES

Maps and *inventories* may be used to verify collective expectations within actual educational practices; that is, they reveal the distribution of opportunities to learn across an institution and its programs and services. More important, these representations provide a rich context for writing *learning outcome statements*, sentences that describe what students should be able to demonstrate or represent based on how and what they have learned, the subject of Chapter 3. Dialogue and work focusing on what students' learning continuum looks like lead to collectively agreed-upon and clear outcome statements. Without this preparatory work leading to the development of outcome statements, there may well exist disjunctures between shared expectations for student learning and actual opportunities for students to achieve these expectations along their chronologies of learning. Developing a broad view of students' progression enables us to see how frequently students have had opportunities to hone a particular ability, for example, or to build up a repertoire of strategies to solve discipline-specific problems.

Maps

Maps provide information about what and even how students learn over time: they profile intentionality over the continuum of students' learning. Representing the underlying logic of curricular and co-curricular design, they provide a shared context for authoring outcome statements, methods to assess outcome statements, and criteria and standards by which to judge student work, topics addressed in Chapter 3 through Chapter 5.

A curriculum map, or a map of the curriculum and co-curriculum, charts where faculty and others who contribute to student learning integrate educational opportunities that address institution- and program-level expectations for student learning. These maps also identify gaps in student learning opportunities or identify concentrations of learning experiences without further opportunity for students to transfer, build upon, or apply learning. Most important, in the early dialogue that grounds assessment, maps help us see if the learning priorities we collectively articulate translate into underlying coherence among our efforts. If not, we have the opportunity during these early discussions to reprioritize learning outcomes, identify other outcomes that have taken precedence because of societal or workplace changes, or reassert their significance as core outcomes by discussing ways to deepen and broaden attention to them in the curriculum and co-curriculum and other sets of experiences.

Maps of the curriculum and co-curriculum serve three main purposes in building a collective institutional commitment to assessment:

1. They stimulate discussion about and critical reflection on collective learning priorities.
2. They illustrate how well collective expectations match with educational practices that foster those priorities.
3. They provide a visual representation of students' contexts for learning that may assist later on in interpreting assessment results.

Because students learn in different ways, under different pedagogies and educational practices, holding a couple of courses solely responsible for developing students' ability to write, for example, assumes that students continue to retain from year to year what they learned in those courses. In fact, they need to continue to apply and build on that learning over the remainder of their undergraduate and graduate studies, including learning about and using disciplinary conventions, formats, rhetorical styles, and ways of presenting information or evidence to solve problems for different audiences and purposes. Valuing multiple educational opportunities that contribute to students' writing abilities broadens institutional responsibility and students' opportunities to learn.

For example, besides responding to assignments in their coursework, students have multiple opportunities to extend their writing abilities outside of the classroom through

- contributions to a college's or university's newspaper or other publications;
- proposals for independent studies;
- proposals for honors projects;
- documentation of meeting discussions and results;
- summaries and analyses of campus surveys.

The institutional value placed on writing actually translates into the life of the institution in multiple

BOX 2.1 INSTITUTIONAL EXAMPLE: *New Jersey City University*

At New Jersey City University, the Business Administration Program's curriculum map locates where both program-level and institution-level learning outcomes are addressed and distributed across the program (See Appendix 2.1 at the end of this chapter). Using a labeling system of *I* (introduced), *R* (reinforced), and *E* (emphasized), members of the program indicate how courses build on desired learning over time, providing a sense of relationships among and between courses and a chronology of how students learn. Listed in the left-hand column are both institution- and program-level learning outcomes. The map and the labeling system provide a visual representation of students' curricular progression as it relates to shared expectations among faculty in the Business Administration Program and as it relates to institution-level expectations. An important collaborative strategy, mapping provides a picture of the whole that may prompt further dialogue about ways to distribute or redistribute learning opportunities.

BOX 2.2 INSTITUTIONAL EXAMPLE: *Rose-Hulman Institute of Technology*

Another approach to curriculum mapping is illustrated in Figure 2.3. At Rose-Hulman Institute of Technology, faculty map where and how they address institution-level learning outcomes, referred to as learning objectives, such as students' awareness of the ethical dimensions of engineering problems for engineers. Faculty receive an electronic form that lists institutional learning objectives, along with criteria that further identify those objectives. This form asks faculty to respond to four questions about how intentionally they address these objectives in their courses, including whether or not students are asked to demonstrate objectives and whether or not faculty provide feedback to students on these objectives, an indicator of intentionality.

A composite curriculum map of these practices, similar to Figure 2.3, provides evidence about program- and institution-level intentionality. This evidence may demonstrate sustained attention over programs and across the institution, or it may demonstrate declining or sporadic attention. Declining or sporadic attention raises the following questions for faculty and staff to answer:

- Is this outcome still one of our priorities?
- If so, how do we redirect attention to it?
- If not, why do we state it is a priority?

Source: Contributed by Gloria M. Rogers, Rose-Hulman Institute of Technology. Reproduced with permission.

learning contexts or opportunities and thereby expands and deepens students' learning about the various forms, strategies, and conventions of writing. A map of the curriculum and co-curriculum, then, would chart not only courses that focus on or integrate writing, but also complementary learning experiences outside of formal coursework that expand students' opportunities to write. (See Box 2.1 and Box 2.2.)

Inventories

Maps provide an overview of students' learning journey—a place to locate where educational opportunities are specifically designed to address institution- and program-level expectations. *Inventories* drill down into actual educational practices to develop shared understanding of and discussion about how students learn over time and how educators value that learning through assessment methods. These kinds of inventories build institution- and program-level knowledge and provide the foundation upon which to design and develop the "bigger picture" assessment methods described in Chapter 4. Agreeing on shared expectations initiates the process of assessment. Exploring questions about the efficacy and relevance of collective educational practices, however, sustains collective curiosity. The following inventory is useful at either the institution or pro-

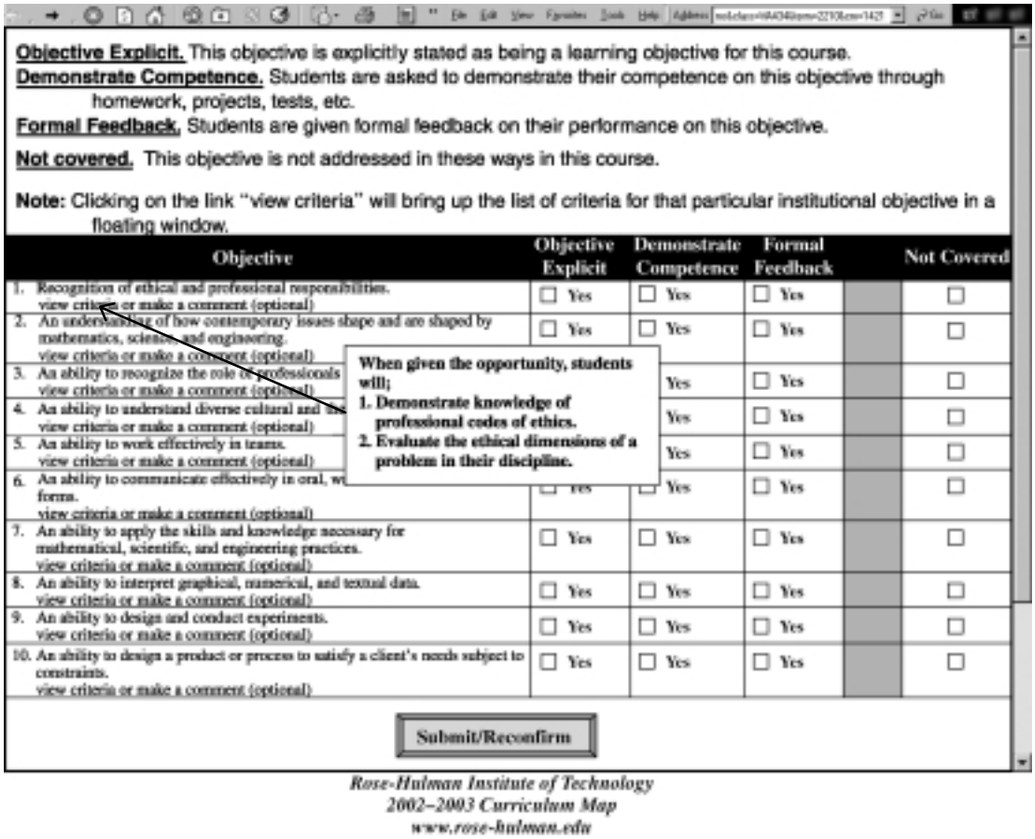

FIGURE 2.3 Rose-Hulman Institute of Technology Curriculum Map. *Source:* Contributed by Gloria M. Rogers, Rose-Hulman Institute of Technology. Reproduced with permission.

gram level to examine how students learn what an institution and its programs expect them to learn:

- What educational philosophy, principles, theories, models of teaching, research on learning, or shared assumptions underlie curricular or co-curricular design, instructional design, pedagogy, or use of educational tools?
- What pedagogies or educational experiences develop the knowledge, understanding, habits of mind, ways of knowing, and problem solving that the institution or its programs value?
- How do students become acculturated to the ways of thinking, knowing, and problem solving in their field of study?
- How do faculty and staff intentionally build upon each others' courses and educational experiences to achieve programmatic as well as institutional learning priorities?
- Which students benefit from which teaching strategies, educational processes, or educational experiences?

Pooling assessment methods used in individual courses or at the end of educational opportunities or experiences is a second type of inventory. This inventory provides longitudinal documentation of the range and frequency of assessment methods students experience along the progression of their education. Identifying patterns of course-based assessment methods over a program of study shapes and informs program- and institution-level assessment methods that build on students' previous assessment experiences, the subject of Chapter 4. Asking students to make inferences based on multiple sources of data is one way to determine their critical thinking abilities. If, however, an inventory of course-based assessment practices reveals that students have had limited experience making inferences and, instead, have been asked primarily to recall or recognize information, then a program-level inference-drawing assessment method would not fairly and appropriately match their learning history. Knowing when to assess chemistry students' ability to formulate a hypothesis or when to assess computer science students' ability to

apply rules of formal logic rests on understanding the chronology of their learning and the chronological value faculty place on these abilities demonstrated through their assessment methods. The following inventory invites conversation about how individuals design assessment tasks in response to institution- and program-level expectations:

- Describe how you design a course or experience to contribute to students' demonstration or representation of an institution- or program-level expectation.
- Identify ways in which students actually learn what you intend, for example, in collaboratively based projects, through simulations, through memorization, through the use of equipment, or through self-reflection in response to a task.
- Describe your assessment method and the context within which students respond to it, for example, at the end of an internship, in a multiple-choice test, or as part of a laboratory assignment.
- Describe the content that you expect students to know in order to respond to a particular method, for example, content learned in the course or content you assume they learned in previous courses or educational experiences.

The accumulated results of individual inventories profile the frequency and range of assessment methods that occur along students' studies. This profile illustrates how intentionally institution- or program-level learning priorities become valued in the kinds of assessment methods distributed across students' studies.

THE DESIGN OF OUR WORK

Given that learning is a complex process, that students learn as a result of different pedagogies, and that they face different obstacles based on misunderstanding or long-held beliefs, exploring the design of our collective work enables us to identify underlying connections and avenues for learning or to identify how we might strengthen connections or build additional avenues for learning. Routine discussions about teaching and learning with representatives from across a campus or from across a program, department, school, or division provide an essential platform for verifying the coherence that underlies collective intentions for student learning. Department or program chairs and directors of services and programs can integrate these discussions within the fabric of their units' work—a rhythm of professional life.

In a collective commitment to assessment, our complex intentions for students, such as their ability to solve disciplinary problems or their ability to evaluate and choose among compelling and competing solutions to a problem, are achieved across our programs and services. Focus is not on what "I" do; focus is on what "we" do. Ownership of teaching stretches across courses, services, and educational practices. It holds us collectively responsible for contributing to learning over students' studies, providing multiple and varied opportunities for them to learn and practice what we value. Conversations about how we translate our teaching philosophies, sets of assumptions about learning, or theories of learning into pedagogy and curricular and co-curricular design establish a common ground for how we choose to assess our students based on their learning chronologies.

Representation of multiple voices in assessment dialogue contributes to achieving consensus about what an institution values and how those values are integrated into institutional culture. This representation also begins to establish institutional channels of communication among all who educate to enhance understanding of the myriad ways in which students learn within and outside of a college or university. Without this context, assessment becomes divorced from our professional work.

WORKS CITED

Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching, and assessment: A revision of Bloom's taxonomy of educational objectives*. New York: Longman.

Bloom, B. S., & Collaborators. (1956). *Taxonomy of educational objectives: Cognitive domain*. New York: David McKay.

Krathwohl, D. R., Bloom, B. S., & Masia, B. B. (1964). *Taxonomy of educational objectives: Affective domain*. New York: David McKay.

Lynton, E. A. (1998, March). Reversing the telescope: Fitting individual tasks to common organizational ends. AAHE *Bulletin*, 50, 8–10.

ADDITIONAL RESOURCES

Teaching Practices, Theories, and Research on Learning that Guide Dialogue about Curricular and Co-Curricular Coherence

Anderson, J. A., Reder, L. M., & Simon, H. A. (1996). Situated learning and education. *Educational Researcher*, 25(4), 5–11.

Angelo, T. A. (1993, April). A teacher's dozen: Fourteen research-based principles for improving higher learning in our classrooms. AAHE *Bulletin*, 13, 3–7.

Association of American Colleges & Universities. (1991). *The challenge of connecting learning*. Washington, DC: Author.

Association of American Colleges & Universities. (1998). *Statement on liberal learning*: ***www.aacu.org/about/liberal_learning.cfm.***

Balsom, P. D., & Tomie, A. (Eds.) (1985). *Context and learning*. Hillsdale, NJ: Lawrence Erlbaum.

Bean, J. C. (1996). *Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom*. San Francisco: Jossey-Bass.

Biggs, J. (1999). *Teaching for quality learning at university: What the student does*. Birmingham, Great Britain: Society for Research into Higher Education & Open University Press.

Brookfield, S. D. (1987). *Developing critical thinkers*. San Francisco: Jossey-Bass.

Brown, D. G. (Ed.). (2000). *Teaching with technology*. Bolton, MA: Anker Press.

Brown, J. S. (2000). Growing up digital: How the Web changes work, education, and ways people learn. *Change*, 32(2), 11–20.

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18, 32–42.

Clark, R. C., & Mayer, R. E. (2002). *E-learning and the science of instruction*. San Francisco: Jossey-Bass.

Colby, A., Ehrlich, T., Beaumont, E., & Stephens, J. (2003). *Educating citizens: Preparing America's undergraduates for lives of moral and civic responsibility*. San Francisco: Jossey-Bass.

Diamond, R. M. (1997). *Designing & assessing courses & curricula: A practical guide*. San Francisco: Jossey-Bass.

Donald, J. D. (2002). *Learning to think: Disciplinary perspectives*. San Francisco: Jossey-Bass.

Edgerton, R., Hutchings, P., & Quinlan, K. (1995). *The teaching portfolio: Capturing the scholarship of teaching* (3rd reprinting). A Publication of the AAHE Teaching Initiative. Washington, DC: AAHE.

Entwhistle, N. (1983). *Understanding student learning*. New York: Nichols.

Fink, D. L. (2003). *Creating significant learning experiences: An integrated approach to designing college courses*. San Francisco: Jossey-Bass.

Gabelnick, F., MacGregor, J., Matthews, R. S., & Smith, B. L. (1990). *Learning communities: Creating connections among students, faculty, and disciplines*. New Directions for Teaching and Learning, 41. San Francisco: Jossey-Bass.

Gardner, H. (1993). *Multiple intelligences: The theory into practice*. New York: Basic Books.

Hutchings, P. (Ed.) (1998). *The course portfolio: How faculty can examine their teaching to advance practice and improve student learning*. A Publication of the AAHE Teaching Initiative. Washington, DC: American Association for Higher Education.

Hutchings, P., Bjork, C., & Babb, M. (2002). *An annotated bibliography of the scholarship of teaching and learning in higher education* (Revised and updated Fall, 2002). The Carnegie Foundation for the Advancement of Teaching: ***www.carnegiefoundation.org/elibrary/docs/bibliography.htm.***

Kuh, G. D. (2001). Assessing what really matters to student learning: Inside the national survey of student engagement. *Change*, 33(3), 10–17, 66.

Light, R. J. (2001). *Making the most of college: Students speak their minds*. Cambridge, MA: Harvard University Press.

Light, R. J. Singer, J. D., & Willett, J. B. (1990). *By design: Planning research on higher education*. Cambridge, MA: Harvard University Press.

McLaughlin, T., & MacGregor, J.(1996). *Curricular learning communities directory*. Olympia, WA: Washington Center for Improving the Quality of Undergraduate Education.

Mezirow, J., & Associates. (2000). *Learning as transformation: Critical perspectives on theory in progress*. San Francisco: Jossey-Bass.

Miller, J. E., Groccia, J., & Miller, M. (Eds.). (2001). *Student-assisted teaching: A guide to faculty-student teamwork*. Bolton, MA: Anker Press.

Oblinger, D. G., & Rush, S. C. (1997). *The learning revolution: The challenge of information technology in the academy*. Bolton, MA: Anker Press.

Oblinger, D. G., & Rush, S. C. (Eds.). (1998). *The future compatible campus: Planning, designing, and implementing information technology in the academy*. MA: Anker Press.

Palloff, R. M., & Pratt, K. (2003). *The virtual student: A profile and guide to working with online students*. San Francisco: Jossey-Bass.

Palmer, P. J. (1999). *Building learning communities in cyberspace*. San Francisco: Jossey-Bass.

Palmer, P. J. (2000). *The courage to teach: Exploring the inner landscape of a teacher's life*. San Francisco: Jossey-Bass.

Palmer, P. J. (2001). *Lessons from the cyberspace classroom: The realities of online teaching*. San Francisco: Jossey-Bass.

Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco: Jossey-Bass.

Perry, W. G., Jr. (1999). *Forms of intellectual and ethical development in the college years: A scheme*. San Francisco: Jossey-Bass. (Originally published in 1970).

Poindexter, S. (2003, January/February). Holistic learning. *Change*, 35(1), 25–30.

Prosser, M., & Trigwell, K. (1999). *Understanding learning and teaching: The experience in higher education*. Buckingham, UK: Open University Press.

Schon, D. A. (1990). *Educating the reflective practitioner*. San Francisco: Jossey-Bass.

Seldin, P., & Associates. (2000). *Improving college teaching*. Bolton, MA: Anker Press.

Sheckley, B. G., & Keeton, M. T. (1997). *A review of the research on learning: Implications for the instruction of adult learners*. College Park, MD: Institute for Research on Adults in Higher Education, University of Maryland.

Shulman, L. S. (1999, July/August). Taking learning seriously. *Change*, 31(4), 10–17.

Shulman, L. S. (2002, November/December). Making differences: A table of learning. *Change*, 34(6), 36–44.

Smith, B. L., & McCann, J. (2001). *Reinventing ourselves: Interdisciplinary education, collaborative learning, and experimentation in higher education*. Bolton, MA: Anker Press.

Stark, J. S., Shaw, K. M., & Lowther, M. A. (1989). *Student goals for college and courses*. Report No. 6. Washington, DC: School of Education and Human Development, The George Washington University.

Stirnberg, R. J. (1997, March). What does it mean to be smarter? *Educational Leadership*, 20–24.

Strassburger, J. (1995). Embracing undergraduate research. *AAHE Bulletin*, 47(9), 3–5.

Tinto, V., et al. (1997). *Building learning communities for new college students: A summary of findings from the collaborative learning project*. Syracuse, NY: National Center on Postsecondary Teaching, Learning, and Assessment, Syracuse University.

21st Century Learning Initiative. (1997). *A transnational program to synthesize the best of research and development into the nature of human learning, and to examine its implications for education, work, and the development of communities worldwide: A work in progress*. Washington, DC: Author.

Wehlburg, C. M., & Chadwick-Blossey, S. (Eds.). (2003). *To improve the academy: Resources for faculty, instructional, and organizational development*. Bolton, MA: Anker Press.

Weimer, M. (2002). *Learner-centered teaching: Five key changes to practice*. San Francisco: Jossey-Bass.

Wiggins, G., & McTighe, J. (1998). *Understanding by design*. Alexandria, VA: Association for Supervision and Curriculum Development.

Wiske, M. S. (Ed.). (1998). *Teaching for understanding: Linking research with practice*. San Francisco: Jossey-Bass.

Zahornik, J. A. (1997, March). Encouraging—and challenging—students' understandings. *Educational Leadership*, 30–33.

Resources That Focus on Diverse Learners, Diverse Learning Styles, and Diverse Teaching Styles

Anderson, J. (2001). Developing a learning/teaching style assessment model for diverse populations. In L. Suskie (Ed.), *Assessment to promote deep learning* (pp. 21–30). Washington, DC: American Association for Higher Education.

Bash, L. (2003). *Adult learners in the academy*. Bolton, MA: Anker Press.

Brookfield, S. D. (1987). *Developing critical thinkers: Challenging adults to explore alternative ways of thinking and acting*. San Francisco: Jossey-Bass.

Brookfield, S. D. (1991). *Understanding and facilitating adult learning*. San Francisco: Jossey-Bass.

Caffarella, R. S. (2002). *Planning programs for adult learners: A practical guide for educators, trainers, and staff developers*. San Francisco: Jossey-Bass.

Farmer, J. A., Jr., Buckmaster, A., & LeGrand, B. (1992, Fall). Cognitive apprenticeship: Implications for continuing professional education. In V. J.

Marsick & H. K. Baskett (Eds.), Professionals' ways of knowing: New findings on how to improve professional education. *New Directions for Adult and Continuing Education*, 55, 41–49.

Nilson, L. B. (2003). *Teaching at its best: A research-based resource for college instructors* (2nd ed.). Bolton, MA: Anker Press. See, especially, chapter on teaching to different learning styles.

Morgan, C., & O'Reilly, M. (1999). *Assessing open and distance learners*. London: Kogan Page.

Ross-Gordon, J. M. (Ed.). (2002). *Contemporary viewpoints on teaching adults effectively*. San Francisco: Jossey-Bass.

Stein, D. S., & Imel, S. (Eds.). (2002, Fall). Adult learning in community. *New Directions for Adult and Continuing Education*.

Taylor, K., Marienau, C., & Fiddler, M. (2000). *Developing adult learners*. San Francisco: Jossey-Bass.

Tennant, M., & Pogson, P. (2002). *Learning and change in the adult years: A developmental perspective*. San Francisco: Jossey-Bass.

Wilson, A. L., & Hayes, E. R. (2000). *Handbook of adult and continuing education*. San Francisco: Jossey-Bass.

Wlodkowski, R. J., & Ginsberg, M. B. (2003). *Diversity & motivation: Culturally responsive teaching*. San Francisco: Jossey-Bass.

Meta-sites on Active Learning and Teaching and Learning Inventories

The Active Learning Site. The Active Learning Site supports the scholarship of teaching by providing research-based resources designed to help educators use active learning. Its resources include learning bibliographies in business, humanities, sciences and applied science, and social sciences, including general research on active learning; learning research summaries; Internet links on active learning; and a starter kit for the VARK learning styles inventory: ***www.active-learning-site.com.***

The Learning Styles Resource Center. Sponsored by the University of Maryland University College and Towson University, the Learning Styles Resource Center provides teaching and learning inventories that may contribute to dialogue about the ways in which students learn and the ways in which faculty teach: ***polaris.umuc.edu/~rouellet/learning/about.htm.*** Learning inventories help educators understand how students perceive, organize, and process information. Teaching inventories stimulate and promote discussion about the range or lack of range of ways in which educators teach, thus occasioning dialogue about the multiple, varied, and ample opportunities students experience to learn and develop over time.

Learning Styles Resources at Questia. For more information about publications and research on learning styles, go to Learning Styles Resources at Questia, an online library of books, journals, magazines, and newspapers: ***www.questia.com/Index.jsp?CRID=learning_styles&OFFID5se1.***

The Kolb Learning Styles Inventory. Among the most well-recognized learning inventories is the Kolb Learning Styles Inventory, designed to determine students' preferences in learning and the ways in which they process ideas and experiences. For information about this inventory, go to the following Web site: ***pss.uvm.edu/pss162/learning_styles.html.***

Solomon and Felder. Solomon and Felder have integrated several learning inventories, including perceptual ways of learning, into one inventory available at: ***www2.ncsu.edu/unity/lockers/users/f/felder/public/ILSdir/ilsweb.html.***

Student Affairs

The American College Personnel Association (ACPA). This association provides principles, resources, and publications that guide effective assessment of student learning: ***www.myacpa.org/pub/pub_ar.cfm.***

The National Association of Student Personnel Administrators (NASPA). NASPA continually provides readings and resources on assessment through its online journal, *NetResults*: ***www.naspa.org/netresults.***

Upcraft, M. L., & Schuh, J. H. (1996). *Assessment in student affairs: A guide for practitioners*. San Francisco: Jossey-Bass.

Meta-site Leading to Articles on Assessment in Student Affairs

The California State University
www.calstate.edu/acadaff/sloa/links/student_affairs.shtml.

Resource for Collaboration between Academic Affairs and Student Affairs

Marcia B. Baxter Magolda (Executive Eds.). *About Campus*. A bi-monthly journal sponsored by the American College Personnel Association, *About Campus* is dedicated to the idea that student learning is the responsibility of all educators on campus. It is, therefore, designed to foster work between student affairs and academic affairs. *About Campus* is abstracted/indexed in *Current Index to Journals in Education* (ERIC); *Higher Education Abstracts*: ***www.interscience.wiley.com.***

WORKSHEETS, GUIDES, AND EXERCISES

1. *A Coordinating Body*. Campus leaders oversee the formation of a campus assessment committee to initiate, coordinate, and orchestrate cycles of inquiry into student learning. Provosts, vice presidents, faculty, staff, and students work together to design a campus assessment committee purposefully composed of representatives from across an institution who bring different sets of lenses to explore student learning. As a campus leader, in conjunction with key members of your college or university, identify the range of members who will either serve on or contribute to a campus committee. If you already have a committee, discuss how you might expand its membership or its relationship to other members of the campus. Membership in either case might include those in the local business community, advisory board members, parents, and representatives of the wider public, for example. As a division head or department chair, follow a similar process to design a program-level committee that invites representation from other internal or external constituencies. Use the following list to help identify these constituencies as representatives on your committee or as ad hoc members:

   - ❑ Institution's chief academic leader
   - ❑ Representatives from faculty and staff governance
   - ❑ Full- and part-time faculty
   - ❑ Representative from each academic program, department, division, or each school within an institution
   - ❑ Representative from academic support services
   - ❑ Representative from library and information resources
   - ❑ Representative from student support services
   - ❑ Full- and part-time graduate and undergraduate students
   - ❑ Teaching assistants
   - ❑ Tutors
   - ❑ Local community members who educate students in internships, cooperative education programs, and community service
   - ❑ Members of community and business advisory groups
   - ❑ Department, division, school, or program leaders
   - ❑ Laboratory assistants who are familiar with how well students have learned or are learning
   - ❑ Graduate assistants
   - ❑ Alumni who provide a perspective on what they learned in a program and the currency of that learning
   - ❑ Employers who identify what students bring to their employment as well as identify new abilities students will need to bring into the workforce
   - ❑ Parents
   - ❑ Representatives from institutional research and planning who provide expertise and support for assessment

2. *Expectations for Student Learning*. Use Figure 2.1 in this chapter as a way to generate discussion and consensus about institution-level and program-level expectations for student learning. Initially, discussion may begin by identifying discrete abilities, such as critical thinking. However, because program- and institution-level assessment focuses on how students integrate over time, work toward articulating what you expect them to be able to accomplish mid-point and end-point in their studies, such as evaluating alternative solutions to disciplinary problems, identifying behavioral patterns that lead to a specific diagnosis, or integrating disciplinary or interdisciplinary perspectives into solutions to problems.

   An institution-wide committee or core working group might use this figure as a way to focus on articulating what it believes all students who graduate from an institution should be able to demonstrate, represent, or produce. A program-level committee might use this figure to promote dialogue about what it believes all students who graduate from that program should be able to demonstrate, represent, or produce. Programs and services that contribute to and support student learning, such as in the areas of library and information resources or student affairs and support services, might use this figure to promote similar discussions. Representatives from these areas should also participate in academic institution- and program-level discussions to assure there is coherence underlying curricular and co-curricular intentions.

3. *Integration*. You may wish to select one or more of the readings listed under "Additional Resources" in this chapter as a way to deepen dialogue about how students learn over time in a department, school, program, or service at the institution.

   For example, your department might read Donald's book, *Learning to Think: Disciplinary Perspectives,* to stimulate discussion about how learning develops in a discipline over time.

   Perry's book, *Forms of Intellectual and Ethical Development in the College Years: A Scheme,* might guide institution-level dialogue about how a theory of development translates itself into the design of the curriculum and co-curriculum to develop students' attitudes and dispositions.

   Brown's article, "Growing Up Digital: How the Web Changes Work, Education, and Ways People Learn," might focus dialogue on the design of delivery systems as they contribute to program- and institution-level learning outcomes.

   The Association of American Colleges & Universities' writings, www.aacu.org/integrative_learning/index.cfm or www.carnegiefoundation.org/LiberalEducation/ Mapping_Terrain.pdf, could generate discussion about the learning relationships between students' majors and their liberal education.

   Mentkowski & Associates' seven principles of learning, in *Learning that Lasts: Integrating Learning, Development and Performance in College and Beyond* (pp. 227–246), may focus dialogue on ways to deepen student learning at the program and institution levels.

4. *Coherence*. Once your institution- or program-level committee has agreed upon expectations for student learning, discuss the range of ways in which people teach or create learning environments that contribute to students' learning. Dialogue might involve discussing philosophies of teaching, principles of or assumptions about teaching and learning, theories of learning, research on learning and development, or research on learning in a discipline, topics that lead to collective understanding of the ways in which students learn over time. Use the following set of questions to guide institution-level discussions focused on how students learn what an institution and its programs and services value:
   - What educational philosophy, principles, theories, models of teaching, research on learning, or shared assumptions underlie curricular or co-curricular design, instructional design, pedagogy, or use of educational tools to promote institution- or program-level expectations for student learning?
   - What pedagogies or educational experiences develop the knowledge, understanding, habits of mind, ways of knowing, and problem solving that the institution or its programs value?
   - How do students become acculturated to the ways of thinking, knowing, and problem solving that the institution or its programs value?
   - How do faculty and staff intentionally build upon each others' courses and educational experiences to achieve institution- as well as program-level learning priorities?
   - Which students benefit from specific teaching strategies, educational processes, or educational experiences?

5. *Mapping*. The following format developed by the New Jersey City University Business Administration Program is useful after working groups have achieved consensus about shared expectations for student learning. At either the institution or program level, this map documents the distribution of learning opportunities that contribute to shared expectations for student learning. Representatives from institutional constituencies and even constituencies who contribute to student learning outside of the institution fill out these maps as a way to verify curricular and co-curricular coherence. Expectations for student learning, or outcomes, are listed on the left-hand side of the map, and courses or experiences are listed across the top of the map. Using the labels, *I* (introduced), *R* (reinforced), and *E* (emphasized), individuals indicate the focus of students' learning in the courses they teach or the educational experiences or opportunities they provide.
6. *Inventories*. The following two inventories can be used at either the program or institution level to develop a rich understanding of how educational practices promote shared expectations for student learning. They are particularly useful after groups have developed a map. That is, they provide a deeper look at educational practices and individual assessment methods that promote expected learning. Collective discussion of these worksheets identifies gaps in the continuum of students' learning, directing focus on how educators can integrate or redistribute opportunities for students to build on and demonstrate their learning over time.

Program- or Institution-Level Map								
I = Introduced R = Reinforced E = Emphasized	**Course or Educational Experience**	**Course or Educational Experience**	**Course or Educational Experience**	**Course or Educational Experience**	**Course or Educational Experience**	**Course or Educational Experience**	**Course or Educational Experience**	**Course or Educational Experience**
Learning Outcomes:								
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								

Source: Adapted from the New Jersey City University Business Administration Program. Reproduced with permission.

Inventory 1: Analysis of Assessment Method Used in a Course or Educational Experience to Assess Students' Achievement of an Institution- or Program-Level Expectation Course or Educational Experience:_____			
Design	**Pedagogy and Use of Educational Tools**	**Assessment Method: Context**	**Assessment Method: Content**
Describe how you design a course or educational experience to contribute to students' demonstration or representation of an institution- or a program-level expectation:	Identify ways in which students actually learn what you intend, for example, in collaboratively-based projects, through simulations, through memorization, through the use of equipment, or through self-reflection in response to a task:	Describe your assessment method and the context within which students respond to it, for example, at the end of an internship, in a multiple choice test, or as part of a laboratory assignment:	Describe the content that you expect students to know in order to respond to a particular method, for example, content learned in the course or content you assume they learned in previous courses or educational experiences:

Inventory 2: Documentation of Focus on and Assessment of An Institution- or Program-Level Expectation for Learning Course or Educational Experience:_____				
Program- or Institution-Level Learning Expectation	**Course or Educational Experience Explicitly States This Expectation** Yes/No If yes, describe how.	**Students Demonstrate or Represent Their Learning of This Expectation** Yes/No If yes, describe how.	**Students Receive Formal Feedback About Their Demonstration or Representation of Learning** Yes/No If yes, describe how.	**This Expectation Is Not Addressed in this Course or Educational Experience** Addressed/ Not Addressed
1.				
2.				
3.				
4.				
5.				
6.				
7.				

APPENDIX 2.1 BUSINESS ADMINISTRATION PROGRAM'S CURRICULUM MAP

Business Administration Competencies/Expected Outcomes for the Common Professional Component																
Business Administration Map	**Macro-Economics**	**Micro-Economics**	**Microcomp App for Bus**	**Writing for Bus**	**Pre-Calc (Bus)**	**Intro to Bus**	**Bus Statistics**	**Prin Mgmt**	**Prin Mktg**	**International Bus**	**Prin Acctg I**	**Prin Acctg II**	**Bus Law I**	**Mgl Finance**	**Bus Policy**	
I=Introduce; R=Reinforce; E=Emphasize	**Econ 207**	**Econ 208**	**CS 214**	**Eng 200**	**Math 1165**	**Busi 201**	**Busi 203**	**Busi 211**	**Busi 231**	**Busi 241**	**Busi 251**	**Busi 252**	**Busi 281**	**Busi 371**	**Busi 411**	
Writing Competencies																
Identify a subject and formulate a thesis statement.						I			R						E	
Organize ideas to support a position.				I		R			R				R		E	
Write in a unified and coherent manner appropriate to the subject matter.				I		R			R				R		E	
Use appropriate sentence structure and vocabulary.				I		R			R				R		E	
Document references and citations according to an accepted style manual.						I			R				R		E	
Critical Thinking Competencies																
Identify business problems and apply creative solutions.								I	R	R	R	R		R	E	
Identify and apply leadership techniques.								I						R	E	
Translate concepts into current business environments.								I	R	R	R	R		R	E	
Analyze complex problems by identifying and evaluating the components of the problem.								I			R	R	R	E	E	

Quantitative Reasoning Competencies																
Apply quantitative methods to solving real-world problems.					I		R				R	R		E		
Perform necessary arithmetic computations to solve quantitative problems.					I		R				R	R		E		
Evaluate information presented in tabular, numerical, and graphical form.					I		R				R	R		E	E	
Recognize the reasonableness of numeric answers.					I		R				R	R		E	E	
Oral Communications Competencies																
Organize an oral argument in logical sequence that will be understood by the audience.						I		R	R	R					E	
Use visual aids effectively to support an oral presentation.						I		R	R	R					E	
Demonstrate professional demeanor, speak clearly in well-modulated tone, and engage the audience.						I		R	R	R					E	
Exhibit good listening skills when others are speaking.						I		R	R	R					E	
Technology and Information Literacy																
Identify problem/topic.						I		R						R		
Demonstrate familiarity with information resources and technologies.						I		R						R		
Conduct search query.						I		R						R		
Evaluate sources of information.						I		R						R		

Continued

APPENDIX 2.1 (CONTINUED)

Business Administration Competencies/Expected Outcomes for the Common Professional Component																
Business Administration Map	**Macro-Economics**	**Micro-Economics**	**Microcomp App for Bus**	**Writing for Bus**	**Pre-Calc (Bus)**	**Intro to Bus**	**Bus Statistics**	**Prin Mgmt**	**Prin Mktg**	**International Bus**	**Prin Acctg I**	**Prin Acctg II**	**Bus Law I**	**Mgl Finance**	**Bus Policy**	
I=Introduce; R=Reinforce; E=Emphasize	**Econ 207**	**Econ 208**	**CS 214**	**Eng 200**	**Math 1165**	**Busi 201**	**Busi 203**	**Busi 211**	**Busi 231**	**Busi 241**	**Busi 251**	**Busi 252**	**Busi 281**	**Busi 371**	**Busi 411**	
Computer Literacy																
Demonstrate computer literacy in preparation of reports and presentations.			I						R					E	E	
Demonstrate ability to use software application to solve business problems.							I				R	R		E		
Conduct search queries through the use of the Internet.						I		R	R					E		
Values Awareness																
Recognize ethical issues.						I		R	R	R			E		E	
Identify ethical issues.						I		R	R	R			E		E	
Identify theoretical frameworks that apply to corporate social responsibility.						I		R	R	R			R	R	E	
Translate ethical concepts into responsible behavior in a business environment.						I		R	R	R				R	E	
Develop values awareness.						I		R	R	R					E	

CONTENT-SPECIFIC COMPETENCIES *Global Business Competencies*																
Demonstrate knowledge of contemporary social, economic, and political forces; their interrelationship; and their impact on the global business environment.	I	I				I		R	R	RE				R	R	
Identify the integration of global markets from both financial and product/service perspectives.						I			R	RE				R	R	
Incorporate diverse cultural perspectives into business decisions.						I		R	R	RE					R	
Accounting Competencies																
Understand the role of the accounting information system within an organization's overall information system.											I	R		R		
Demonstrate knowledge of the accounting cycle and the ability to perform necessary procedures at each step of the cycle for both corporate and noncorporate entities.											I	R				
Describe, prepare, and interpret comparative financial statements using analytical techniques such as ratios and common-size statements.											I	R		E		
Understand the differences between financial and managerial accounting.																
Understand the role of managerial accounting analysis, control, and planning of costs within the corporation.											I	R				

Continued

APPENDIX 2.1 (CONTINUED)

Business Administration Competencies/Expected Outcomes for the Common Professional Component																	
Business Administration Map	**Macro-Economics**	**Micro-Economics**	**Microcomp App for Bus**	**Writing for Bus**	**Pre-Calc (Bus)**	**Intro to Bus**	**Bus Statistics**	**Prin Mgmt**	**Prin Mktg**	**International Bus**	**Prin Acctg I**	**Prin Acctg II**	**Bus Law I**	**Mgl Finance**	**Bus Policy**		
I=Introduce; R=Reinforce; E=Emphasize	**Econ 207**	**Econ 208**	**CS 214**	**Eng 200**	**Math 1165**	**Busi 201**	**Busi 203**	**Busi 211**	**Busi 231**	**Busi 241**	**Busi 251**	**Busi 252**	**Busi 281**	**Busi 371**	**Busi 411**		
Finance Competencies																	
Integrate knowledge of economics, accounting, and quantitative analysis in the process of making fiancial decisions.	I	I												IRE			
Access and interpret financial market data using both Internet and print sources.						I		R	R	R				RE			
Apply basic computational techniques and/or spread-sheet software to solve financial problems.							I				R	R		E			
Compute return and risk measures for basic financial assets (stocks and bonds).														I			
Analyze corporate financial statements to pinpoint strengths and weaknesses.											I	R		E	R		
Identify the impact of investment, financing, and dividend policy decisions on the value of an enterprise.														I			

Use financial tools for life decisions about items such as housing, credit, retirements, and investments.														I		
Management Competencies																
Define basic terms used in management.						I		E							R	
Develop a basic strategic planning process for an organizational unit.						I		E							R	
Derive policies and practices that meet the cultural and global challenges of a changing workforce.						I		E							R	
Translate productivity, quality and efficiency concepts to current business environments.						I		E							R	
Marketing Competencies																
Identify, evaluate, and translate basic marketing problems into powerful business solutions.									IRE							
Analyze buyer behavior.									IRE							
Utilize a marketing information system to achieve a competitive advantage.									IRE							
Improve ability to develop new products and evaluate pricing, promotional, and distribution strategies.									IRE							

Source: Contributed by the Business Administration faculty (William Craven, John Egan, Marilyn Ettinger, Richard Fabris, Shimshon Kinory, Patricia McGuire, Robert Matthews, Leonard Nass, Barbara O'Neal, Jeanette Ramos-Alexander, Afaf Shalaby, Joseph Stern, Susan Williams, and Rosalyn Young), New Jersey City University, for the rubric on information literacy. Reproduced with permission.