
TENET TWO: COMMIT TO STUDENT LEARNING AS A PRIMARY FOCUS

James P. Barber

SSAO's Perspective

Barbara Henley

For over 15 years, I have been reciting the phrases “Student learning and assessment” and “Every student affairs department must have at least one learning goal/objective with an assessment component.” I have announced incessantly to my associate vice chancellors (AVCs) that we needed to focus on student learning and assess what we were doing for accountability purposes, to demonstrate we were making a difference with our students, and to prepare for the university’s accreditation. Using as many venues as possible, I repeated this information at our weekly staff meetings; I referred to my undergraduate Education 101 course where I learned to write measurable learning objectives using Bloom’s (1956) taxonomy; and, for a few years, the student learning and assessment theme was interwoven strategically into our annual fall kickoffs and our annual end-of-the-year award programs. Was anyone listening? A few were; however, many student affairs colleagues in our division appeared overwhelmed by the mere idea. We had more work to do.

Subsequently, I hired a part-time coordinator to assist with assessment. Annually, multiple staff development workshops and a certificate of professional development series were planned under the leadership of AVCs and offered to all members of student affairs. Faculty members from departments of higher education were invited often to be our featured speakers. A module on student learning and assessment was incorporated into our orientation for all new staff members. A student affairs assessment committee was appointed, composed of a chairperson and members who had a background in and familiarity with

learning and assessment. One of the goals of the committee was to assist our directors and staff with planning and assessing their programs and services. Although the committee was instrumental in conducting divisional-level assessment projects to demonstrate learning, change was slow at the departmental level.

Many staff continued to struggle with student learning and assessment. Some told me they were unsure about how to measure learning, whereas others told me there were no good instruments available for conducting their assessments. To begin to address the issues, we discussed asking students what they had learned as a result of their participation in our services and programs, and we discussed the use of pre- and posttests to determine if anything had been learned.

After hiring a full-time assessment director and filling positions with staff and leadership who had completed higher education and student affairs preparation programs, we are now beginning to advance our student learning and assessment agenda. There is much discussion currently about what we believe students need to learn, the learning outcomes we expect, the programs and services needed to achieve the outcomes, and how we will assess learning and outcomes. We have come a long way. The journey is not complete, but collectively we agree on the destination, and we will reach it.

The tenet “student learning as the core of assessment” is important. After all, we are members of the academy, a learning organization, and we work in a learning environment. The faculty teaches and assesses student learning. As student affairs educators, we must ensure that the students participating in our programs and services outside the classroom are learning through the use of our course materials such as student codes of conduct, workbooks for various workshops, and instructional videos, to name a few. Moreover, our practice and adherence to student learning as the core of assessment enhances our centrality to the academic mission and our credibility as educators. I am reminded how important it is for us to be ready for reaccreditation visits every 10 years. In addition, it is critical to have the data as a result of assessment to demonstrate we are making a difference during, what has become for some of us, annual budget reduction cycles due to recalcitrant economic challenges.

The role of the senior student affairs officer (SSAO) is vital to the success of implementing student learning and assessment. It is important that the SSAO set the tone and emphasize the importance of student learning and assessment. The SSAO must “walk the talk” through the recruitment and employment of an assessment director to lead the initiative, the appointment of an assessment committee to bring different departments together to create energy and synergy around assessment initiatives, the provision of staff and professional development opportunities, and the furnishing of human and fiscal resources for student learning and assessment to occur.

SSAOs are likely to encounter problems. In my attempts to implement the tenet of student learning as the core of assessment, many challenges were faced. One early discovery was that I was asking members of our division to focus on student learning and assessment, and not all of them had backgrounds in edu-

cation or exposure to graduate-level higher education or student affairs preparation programs. The University of Illinois at Chicago (UIC) did not have graduate programs in these areas to which I could turn for assistance or refer my student affairs colleagues. Some of my colleagues simply were not prepared to conduct assessment; others struggled with modes and instruments of assessment.

I began by identifying ourselves as “student affairs educators.” My accompanying message was that the students we serve must learn from their interactions with us and our programs and services. I announced on multiple occasions and in multiple venues the importance of student affairs as a learning organization or a learning laboratory for students and that assessment data were needed to demonstrate our significance and improve our programs accordingly. I hired a student affairs and assessment educator to help deliver the message, to provide the tools through our staff and professional development programs, and to advance our student learning and assessment agenda. I charged every department with having at least one learning objective with an assessment component. Collectively, the strategies are working.

The UIC student affairs mission is derived from the institutional mission. It does not and cannot stand alone. It is heresy for us to work outside the institutional mission, and if we did, it would result in confusion for our students and raise questions about our work. We must work in collaboration with our academic affairs colleagues and others to promote and assess student learning and assessment throughout the academy.

Student Learning and Student Affairs Assessment

The cries for assessment have never been louder in higher education. Ask any senior administrator in academic affairs or student affairs when the next regional accreditation visit is scheduled and you are likely to get a quick answer. Sometimes the pressure for assessment is so strong that college educators can lose sight of the overarching goal of assessment, accreditation, and other forms of quality assurance programs: documenting student learning.

The publication of *Learning Reconsidered* (Keeling, 2004) brought the concept of student learning front and center in the field of student affairs. Subsequent releases including *Learning Reconsidered 2* (Keeling, 2006) and *Assessment Reconsidered* (Keeling, Wall, Underhile, & Dungey, 2008) bolstered the profession’s commitment to fostering and improving student learning experiences. However, it is not enough to create environments or programs that we believe will advance the learning mission of higher education; we must implement effective assessment practices to document how our work is actively promoting college student learning.

I have the privilege to teach a course about higher education assessment and evaluation for graduate students. I was very intentional about the title of

this course; I wanted to be sure that the focus was squarely on student learning. I decided on “Assessment and Evaluation to Promote College Student Learning.” It is a long title, but one that reflects my personal philosophy of assessment and establishes the emphasis on student learning and how assessment can aid in learning. Two predominant questions guide my philosophy of educational assessment: What do we know about student learning? How can we leverage that knowledge to improve learning? In the first chapter, the idea of learning as a reason for conducting assessment is introduced. In this chapter, I explore the role of student learning in the assessment process and discuss prioritizing student learning in assessment.

How College Students Learn

Responsible assessment of student learning begins with an understanding of how people learn (e.g., Ambrose, Bridges, DiPietro, Lovett, & Norman, 2010; Bransford, Brown, Cocking, & National Research Council, 2000). In recent years, fostering student learning has become a central mission of student affairs divisions (Barber & Bureau, 2012; Keeling, 2004). As student affairs professionals focus our work increasingly on student learning, it is essential that we “catch up” on over a century of research on teaching and learning. Most higher education and student affairs preparation programs offer (or require) a course on college student development, exploring the ways in which students grow and change within the college context. Far fewer programs offer a course investigating college student learning. The result is that the majority of professionals trained in traditional graduate preparation programs do not understand how college students learn.

Prior Knowledge and Transfer

Students’ prior knowledge matters; they do not arrive at a college or university as a blank slate. Most individuals have at least 17 or 18 years of life experience to draw upon as they enter higher education and routinely transfer learning from their previous experiences to their new contexts. Over a century ago, Thorndike and Woodworth (1901) developed the *identical elements theory* of transfer. They defined this theory by positing that transferring learning from one situation to another was most likely when there were identical or similar elements in the two situations. Judd (1939) challenged the notion that identical elements were necessary to facilitate transfer, proposing instead that *general principles*, defined as broad generalizations of knowledge, were more important for transfer than memorizing specific pieces of information.

Gestalt psychology (Katona, 1940; Wertheimer, 1945/1959) advanced the idea of general principles and offered a third view of transfer of learning,

which suggested that learning by *understanding meaning* facilitated transfer better than learning by rote. In the late twentieth century, research on *metacognition*, defined as the knowledge of one's own cognition (thinking), synthesized components of transfer theory from previous generations (Mayer & Wittrock, 1996). Metacognition views transfer as a series of learning processes rather than a single task. The metacognitive transfer approach suggests that transfer is heightened when students have learned specific information that is applicable to a given situation (identical elements), particularly when combined with a broader context of knowledge (general principles). With a holistic, contextual understanding (understanding meaning) of a particular question, problem, or task, a student can then choose among relevant knowledge resources and select his or her best approach.

Metacognitive learning has been linked closely with contemporary models of personal development and provides a nexus for the literatures of college student development and learning (King & Siddiqui, 2011). The evolution of thought on learning transfer strongly supports the notion that students' prior knowledge is extremely relevant to new learning. Simply put, if we as college educators do not open the door to students' prior knowledge, we are sacrificing rich opportunities for learning.

Experiential Learning

Although formal education certainly contributes to college students' knowledge base, experiential learning contributes as well, adding significantly to students' current learning. Student affairs professionals have direct oversight for much of the cocurricular or out-of-the-classroom learning at colleges and universities. Experiential learning may take the form of contemporary practices such as living-learning communities, residence life programming, virtual or computer simulation experiences, service-learning courses, study abroad or away experiences, and leadership in student organizations. Despite the modern sound of these familiar programs, experiential learning has been studied for the better part of a century.

Lewin's (1936) interactionist perspective is familiar to many student affairs professionals due to its inclusion in student development literature. His formula $B = f(P \times E)$ represents the concept that behavior is a function of the interaction between a person and his or her environment. John Dewey's (1938) research also supports the influence of experiential learning. His theory of experience suggested that experiences both inside and outside the formal classroom and curriculum contribute substantially to student learning. In a variety of roles, student affairs professionals serve this progressive purpose of helping students develop, organize, and ultimately make meaning of their experience.

Kolb (1984) is another scholar upon whom student affairs professionals often draw due to his focus on experiential learning common in cocurricular programs. Kolb built upon the work of Lewin, Dewey, and Piaget in developing the experiential learning model. In his model, Kolb identified four different abilities that effective learners need to be effective: concrete experience, reflective observation, abstract conceptualization, and active experimentation.

Integration of Learning

In higher education and student affairs, we are concerned with not only the ability to transfer knowledge from one situation to another and the acquisition of knowledge through experience, but also student ability to *integrate learning* among various sources and contexts. I define this concept as follows:

Integration of learning is the demonstrated ability to connect, apply, and/or synthesize information coherently from disparate contexts and perspectives, and make use of these new insights in multiple contexts. This includes the ability to connect the domain of ideas and philosophies to the everyday experience, from one field of study or discipline to another, from the past to the present, between campus and community life, from one part to the whole, from the abstract to the concrete, among multiple identity roles—and vice versa. (Barber, 2012, p. 593)

Integration of learning is a familiar concept to those working in student affairs roles. My own interest in student learning originated from my experiences in student affairs advising undergraduate student leaders and watching them link learning experiences across contexts. Some students could integrate learning deftly, whereas others struggled.

Undergraduates use three primary approaches to integrate learning: (a) connection, (b) application, and (c) synthesis. These three ways of integrating differ in degree of complexity. *Connection* is an initial discovery of a similarity between ideas, but beyond the recognition of similarity, the ideas remain distinct. *Application* is the actual use of knowledge or skills learned in one context in another context. The student moves beyond connecting ideas and puts learning into action. Finally, *synthesis* is a creative process in which the individual brings together two or more ideas to form something new. In synthesizing, the student becomes even more deeply involved with the knowledge or skills. Although less experienced students rely heavily on connection and application, as individuals progress in college, they become more adept at using all three approaches to integration in concert (Barber, 2009, 2012, 2014).

In considering strategies for keeping student learning at the center of student affairs assessment, it is useful to shift our collective frame of reference for our profession from an instruction paradigm to a learning paradigm (Barr & Tagg, 1995). Fried and associates (2012) encouraged a view of learning as an integrated process, not limited to academic affairs and the traditional classroom, and positioned student affairs practice as “experiential transformative education” (p. 10). As the student affairs profession begins to move toward a more integrative view of education, in which student affairs professionals are responsible for student learning as opposed to more administrative “student support services” functions, the field faces increased expectations to position student learning as the core of our assessment efforts. Starting with the end in mind—that is, the learning that our programs, resources, and services aim to foster—is vital. Therefore, establishing clear and practical learning outcomes matters.

Drafting Learning Outcomes

Armed with a better understanding of *how* students learn, student affairs professionals can more deeply consider *what* students learn. In assessment of student learning, process matters greatly and establishing clear, measurable learning outcomes is a key initial step. The educational experience or curriculum is then planned with the student learning outcomes in mind, with a focus on how to best facilitate student achievement of the stated outcomes. Only then should the assessment method be considered to find the most effective and efficient way to evaluate whether a student has successfully mastered the outcome(s). In this way, student learning is the starting point in the process, and the curriculum and assessment are aligned to best support students in reaching the outcome.

In drafting student learning outcomes, it is important to be clear, concise, and realistic. Consider the fairy tale “Goldilocks and the Three Bears” when developing learning outcomes. Just as Goldilocks sought out the porridge that was not too hot, not too cold, but just right, educators need to develop learning outcomes that are not so broad that they lose meaning, but also not so specific that they become unattainable for the majority of students. Like Goldilocks, you want to find the balance that is just right.

The ABCD method for writing learning outcomes (Heinich, Molenda, Russell, & Smaldino, 1996) is a practical tool for educators to use in the initial stages of assessment. In this formula, A represents *audience*; in most cases, students participating in a particular experience are the audience for your learning outcome. B is the desired *behavior*, a descriptor of what students are

expected to be able to do as a result of participation in the experience. C is the *context* for learning, which could also be termed the *curriculum* or the *condition*; this element describes where you are providing the opportunity for students to learn the desired behavior. Finally, D represents the *degree* to which the behavior is performed. Common examples of the degree include a percentage score on an assignment or ability to perform a task within a specified time limit or in varied contexts. When you put the elements of the formula together, you develop a learning outcome that reads similar to: “As a result of participating in [context], [audience] will be able to [behavior] to a specific [degree.]” For example: As a result of participating in a mock interview with the career center, students will be able to identify one or more questions an employer is likely to ask in a real-life interview. In this sample learning outcome, the audience is “students,” the behavior is “identify . . . questions an employer is likely to ask,” the context is “a mock interview,” and the degree is “one or more questions.”

Models for Assessment

Choosing an appropriate framework for your assessment is critical. In this section, I address the role of theories in assessment of student affairs learning activities as well as standards for best practice in the field. There are several theoretical frameworks that are frequently used in student affairs work, and in this chapter I will discuss two: (a) the I-E-O model (Astin, 1993; Astin & Antonio, 2012) and (b) the self-authorship model (Baxter Magolda, 1999; Baxter Magolda & King, 2012). These two models in particular allow student affairs leaders to view how the work of the division impacts the student experience in terms of learning and development and consider what programming and resources should be provided across the experience.

The I-E-O model describes the inputs (I), environments (E), and outputs (O) of education, with a focus on the change between the inputs and outputs; that is, the student characteristics prior to and after participating in a particular educational experience. The self-authorship model is a developmental framework that describes individual growth in three dimensions of development: cognitive, intrapersonal, and interpersonal. The journey toward self-authorship charts a continuum of meaning making in these three domains, moving from externally defined views of knowledge, identity, and relationships to internally derived foundations. These are not mutually exclusive frameworks, and many educators use both, or elements of each, in their work. Next, I describe these two models in greater detail.

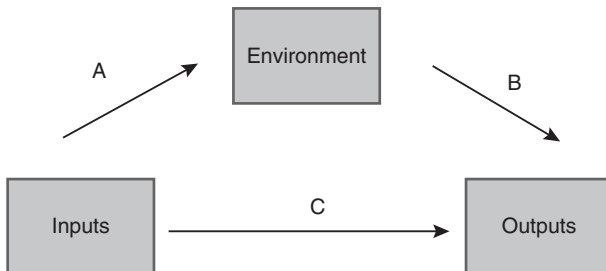
I-E-O Model

Alexander Astin first proposed the foundation for the I-E-O model in 1962 as a way to understand the relationship between an institution’s input of high-achieving freshmen and output of PhD graduates (Astin, 1962; Astin & Antonio, 2012). He found that the characteristics of incoming students (standardized test scores, GPA, etc.) were highly predictive of how many students would go on to earn a doctorate (Astin, 1962). The I-E-O model provides a simple and logical framework for looking at student learning: Where does the student start, what environmental experiences does the student participate in, and where does the student finish? In Astin’s own words (1993), “the basic purpose of the model is to assess the impact of various environmental experiences by determining whether students grow or change differently under varying environmental conditions” (p. 7). The focus is on the impact the college environment has on the student; that is, the change between the input and output (Figure 2.1).

Astin noted that even with excellent information about both the student inputs and outputs, our grasp of the educational process is limited if we do not understand the experiences and curricula that comprise the college environment (Astin & Antonio, 2012). As illustrated in Figure 2.1, the student inputs directly affect both the environment and the outputs. Where you focus on this model may depend on where you work on campus. Those concerned with recruiting and admission see arrow A as primary and want to know more about how students’ incoming characteristics might affect school choice or, in other words, how and why different types of students may select different college environments.

Historically, administrators and external audiences have been highly interested in arrow C, the direct relationship between students as they enter and depart the institution. The environmental component is sometimes referred to as a “black box” in understanding the impact of higher

Figure 2.1 The I-E-O Model



Source: Astin & Antonio, 2012.

Copyright © 2006, Stylus Publishing. All rights reserved.

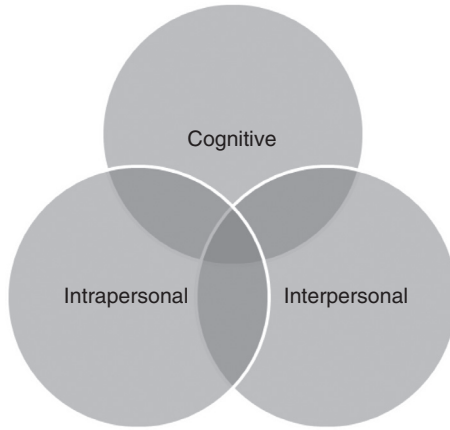
education. Researchers know a great deal about the inputs (SAT and ACT score, high school GPA, socioeconomic status) and the outputs (graduation rate, employment statistics, median income), but, often, very little about the experiences that students have between matriculation and graduation. In student affairs assessment, the focus is often on arrow B, the ways in which the environment (including cocurricular programs, residential life, support services, etc.) affects the outputs; in many assessment projects, there is little or no consideration of the inputs.

To return to the earlier example of a mock interview in a campus career center, the inputs may include a student's prior knowledge (previous work, experience interviewing) and program of study. The environment is the practice interview itself, as well as any accompanying feedback, processing, and resulting intervention programs facilitated by professionals in the career center. Finally, the outcome is the student's success in securing a job offer.

Self-Authorship Model

The self-authorship model is a developmental framework that can be useful in assessing how students grow and change over time. Grounded in the constructive–developmental approach, the self-authorship model asserts that meaning making is individually constructed by people in context (i.e., constructivism), and evolves into more complex forms over time (i.e., developmentalism). Self-authorship has three dimensions: (a) cognitive or epistemological, focused on how a person sees knowledge and the world around him or her; (b) intrapersonal, focused on how an individual sees himself or herself; and (c) interpersonal, focused on how someone views relationships with others (Baxter Magolda, 1999). Using the self-authorship model as an assessment framework may be particularly attractive to student affairs educators because it allows for exploration of how students are learning holistically, taking into consideration these three domains of cognition, identity, and relationships (Figure 2.2).

The journey toward self-authorship is individual development along a continuum through three main meaning-making structures: (a) external meaning making, (b) a transitional crossroads phase, and (c) internal meaning making. These three structures are further subdivided into 10 positions on the continuum, describing nuanced ways of thinking (Baxter Magolda & King, 2012). Although there is an overall developmental trajectory from a reliance on external frameworks to creating internal foundations for meaning making, the journey along this continuum is not linear. The developmental path may differ for each individual, and the

Figure 2.2 Self-Authorship Model

progression toward self-authorship in the three domains is better represented by a helix rather than a straight line (Baxter Magolda and King, 2012).

Due to its developmental nature, the self-authorship model can be a practical framework for both developing and assessing learning outcomes. Many of the complexities of meaning making necessary for self-authorship are also characteristic of metacognition, including the benefits of deep reflection and personal agency (King & Siddiqui, 2011). The self-authorship model has been used to assess specific outcomes relevant to student affairs education, such as intercultural maturity (King & Baxter Magolda, 2005), as well as to develop and assess the outcomes of multi-year curricula, including the Miami University Honors Program (Taylor & Haynes, 2008).

Regarding the career center mock interview in terms of the self-authorship model, student affairs educators would consider the perspectives of students at different developmental levels. For example, a first-year student visiting the center for the first time to prepare for a summer internship interview may need initial exposure to the interview process, coaching on appropriate attire, and tips on eye contact and posture. A graduating senior with previous interview experience may need more assistance discussing how his or her field of study aligns with the intended employer and negotiating salary and benefits. Student affairs educators can apply the three dimensions of development in this case as well, considering how the student views the world and employment landscape around him or her (cognitive), himself or herself as a candidate (intrapersonal), and the relationship with the interviewer/potential employer (interpersonal).

Standards and Frameworks for Assessing Student Learning

In addition to the theoretical models reviewed previously, professional standards and frameworks in higher education and student affairs can be excellent resources for assessing student learning. The Degree Qualifications Profile (DQP) (Adelman, Ewell, Gaston, & Geary Schneider, 2014), the Valid Assessment of Learning in Undergraduate Education (VALUE) rubrics (Association of American Colleges and Universities [AAC&U], 2009), and the Council for the Advancement of Standards in Higher Education (CAS) *Professional Standards for Higher Education* (CAS, 2012) are three valuable tools for assessment.

The DQP is the broadest of the three and the only framework developed to define the student learning expected from various academic degrees. The DQP offers baseline criteria for what students should know and be able to do to earn associate's, bachelor's, and master's degrees, regardless of major and field of study (Adelman et al., 2014). The DQP can serve as a useful benchmarking tool for student affairs educators who also work with a broad array of students across majors and disciplines. In addition, student affairs leaders can use this model to develop a cocurricular framework for the division that complements degree-level outcomes. The DQP and resources on implementation can be found online for free (www.degreeprofile.org).

The AAC&U, which focuses on liberal learning at the undergraduate level, has developed a series of 16 rubrics for assessing student learning, based on the organization's "Essential Learning Outcomes" first described in *College Learning for the New Global Century* (AAC&U, 2007). Collectively titled the VALUE rubrics, they were created as part of an initiative to develop direct assessments of student learning that would provide authentic and convincing evidence of student learning. The VALUE rubrics were first released in 2009 and are available for free (www.aacu.org/VALUE/rubrics).

The tenets found within the CAS *Professional Standards for Higher Education* (CAS, 2012) stand out as the most comprehensive collection of standards available for student affairs, student services, and student development. The CAS standards are a long-held approach to developing higher education programs, in use by higher education professionals for over 35 years. The standards are centered on student learning outcomes organized into six broad domains, many of which draw upon the theories of learning and development discussed previously: (a) knowledge acquisition, construction, integration, and application; (b) cognitive complexity; (c) intrapersonal development; (d) interpersonal competence; (e) humanitarianism and civic engagement; and (f) practical competence.

CAS (2012) currently offers standards and guidelines for 44 different functional areas in higher education and student affairs; examples include academic advising programs, career services, fraternity/sorority advising programs, service-learning programs, and undergraduate research programs. In addition to the standards themselves, each area has an accompanying self-assessment guide, which provides institutions with a practical map for assessing program effectiveness based on the CAS standards.

The SSAO Role: Applying Frameworks to Assess Learning in Student Affairs

For effective assessment of student learning, student affairs leaders must connect the frameworks and standards with assessment of student learning on campus. As discussed earlier in this chapter, the process matters. Start with an understanding of how people learn and then use that knowledge to draft clear learning outcomes. Next, choose the assessment methods that would be best at documenting the learning in a particular program or environment. However, the process does not end with the data collection. Too often, information is gathered to satisfy external accreditors or stakeholders, only to be archived in a binder or computer folder once the report is submitted. Using most of these frameworks, student affairs educators can not only assess the extent to which experiences have helped students move to one stage, but also assist in developing strategies to move to the next stage or context.

Sharing the findings of assessment is essential for transparent leadership in higher education, and it is important to develop a clear plan to disseminate findings regularly to multiple constituencies, including parents, legislators, alumni, faculty/staff, and of course the students themselves. Although reporting on progress is an important part of assessment work, it is not the end goal. Unless we as educators are using the data to promote student learning, we are not realizing the full potential of assessment.

Conclusion

This chapter explores a number of frameworks and resources that can assist student affairs professionals in meaningful assessment of student learning. In planning assessment efforts, educators must keep the process in mind. We begin with thoughtful consideration of the intended learning outcomes, develop strong environments in which learning can flourish, collect authentic evidence of student learning, and then are intentional about closing the

cycle by using the knowledge gained to improve the student learning experience. Most importantly, educators need to understand *how* students learn in order to effectively assess learning and create educational experiences that work. Assessment practice firmly grounded in learning theory and aggressively focused on improving student learning will lead to greater success in ultimately achieving learning outcomes.

It is vital to understand why assessment is important and to uncover the frameworks behind student affairs practices that encourage learning. The next section focuses on how divisional leadership is demonstrated and culture is changed by SSAOs securing staff buy-in: Garrison Duncan and Holmes examine how to get people invested in this idea that assessment in student affairs practice matters.

References

- Adelman, C., Ewell, P., Gaston, P., & Geary Schneider, C. (2014). *The Degree Qualifications Profile 2.0: Defining U.S. degrees through demonstration and documentation of college learning*. Retrieved from <http://www.luminafoundation.org/publications/DQP/DQP2.0-draft.pdf>
- Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M. C., & Norman, M. K. (2010). *How learning works: Seven research-based principles for smart teaching*. San Francisco, CA: Jossey-Bass.
- Association of American Colleges and Universities. (2007). *College learning for the new global century*. Retrieved from http://www.aacu.org/leap/documents/GlobalCentury_final.pdf
- Association of American Colleges and Universities. (2009). *VALUE rubrics*. Retrieved from <http://www.aacu.org/VALUE/rubrics/>
- Astin, A. (1962). "Productivity" of undergraduate institutions. *Science*, 136(3511), 129–135. Retrieved from <http://www.jstor.org/stable/1708437>
- Astin, A. (1993). *What matters in college? Four critical years revisited*. San Francisco, CA: Jossey-Bass.
- Astin, A. W., & Antonio, A. L. (2012). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education* (2nd ed.). Lanham, MD: Rowman & Littlefield.
- Barber, J. P. (2009). Integration of learning: Meaning making for undergraduates through connection, application, and synthesis (N. 3354010). Dissertation Abstracts International database.
- Barber, J. P. (2012). Integration of learning: A grounded theory analysis of college students' learning. *American Educational Research Journal*, 49(3), 590–617. doi: 10.3102/0002831212437854
- Barber, J. P. (2014). Integration of learning model: How college students integrate learning [Special Section]. *New Directions for Higher Education*, 2014(165), 1–7. doi: 10.1002/he.20079

- Barber, J. P., & Bureau, D. (2012). Coming into focus: Positioning student learning from *The Student Personnel Point of View* to today. In K. M. Boyle, J. W. Lowery, & J. A. Mueller (Eds.), *Reflections on the 75th anniversary of The Student Personnel Point of View* (pp. 35–40). Washington, DC: American College Personnel Association & College Student Educators International.
- Barr, R. B., & Tagg, J. (1995). From teaching to learning: A new paradigm for undergraduate education. *Change: The Magazine of Higher Learning*, 27(6), 12–25. Retrieved from <http://www.jstor.org.proxy.wm.edu/stable/40165284>
- Baxter Magolda, M. B. (1999). *Creating contexts for learning and self-authorship: Constructive-developmental pedagogy*. Nashville, TN: Vanderbilt University Press.
- Baxter Magolda, M. B., & King, P. M. (2012). Assessing meaning making and self-authorship: Theory, research, and application [Monograph]. *ASHE Higher Education Report Series*, 38(3). San Francisco, CA: Jossey-Bass. doi: 10.1002/aeh.20003
- Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. New York, NY: David McKay.
- Bransford, J., Brown, A. L., Cocking, R. R., & National Research Council (U.S.). (2000). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academies Press.
- Council for the Advancement of Standards. (2012). *CAS professional standards for higher education* (9th ed.). Washington, DC: Author.
- Dewey, J. (1938). *Experience and education*. New York, NY: Collier Books.
- Fried, J., & Associates. (2012). *Transformative learning through engagement: Student affairs practice as experiential pedagogy*. Sterling, VA: Stylus.
- Heinich, R., Molenda, M., Russell, J. D., & Smaldino, S. E. (1996). *Instructional media and technologies for learning*. Englewood Cliffs, NJ: Merrill.
- Judd, C. H. (1939). *Educational psychology*. New York, NY: Houghton Mifflin.
- Katona, G. (1940). *Organizing and memorizing: Studies in the psychology of learning and teaching*. New York, NY: Hafner.
- Keeling, R. P. (Ed.). (2004). *Learning reconsidered: A campus-wide focus on student experience*. Washington, DC: American College Personnel Association & National Association of Student Personnel Administrators.
- Keeling, R. P. (Ed.). (2006). *Learning reconsidered 2: Implementing a campus-wide focus on the student experience*. Washington, DC: American College Personnel Association, Association of College and University Housing Officers-International, Association of College Unions-International, National Academic Advising Association, National Association for Campus Activities, National Association of Student Personnel Administrators, & National Intramural-Recreational Sports Association.
- Keeling, R. P., Wall, A. F., Underhile, R., & Dungey, G. J. (2008). *Assessment reconsidered: Institutional effectiveness for student success*. Washington, DC: International Center for Student Success and Institutional Accountability.

- King, P. M., & Baxter Magolda, M. B. (2005). A developmental model of intercultural maturity. *Journal of College Student Development*, 46(6), 571–592. doi:10.1353/csd.2005.0060
- King, P. M., & Siddiqui, R. (2011). Self-authorship and metacognition: Related constructs for understanding college student learning and development. In C. Hoare (Ed.), *The Oxford handbook of reciprocal adult development and learning* (pp. 113–131). New York, NY: Oxford University Press.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.
- Lewin, K. (1936). *Principles of topological psychology*. New York, NY: McGraw-Hill.
- Mayer, R. E., & Wittrock, M. C. (1996). Problem-solving transfer. In D. C. Berliner & R. C. Calfee (Eds.), *Handbook of educational psychology* (pp. 47–62). New York, NY: Macmillan.
- Taylor, K., & Haynes, C. (2008). A framework for intentionally fostering student learning. *About Campus*, 13(5), 2–11. doi:10.1002/abc.265
- Thorndike, E. L., & Woodworth, R. S. (1901). The influence of improvement in one mental function upon the efficiency of other functions. *Psychological Review*, 8, 247–261.
- Wertheimer, M. (1945/1959). *Productive thinking*. New York, NY: Harper.

Copyright © 2006. Stylus Publishing. All rights reserved.