"*Students* know *how much they have learned.*"
-James C. McCroskey

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Research suggests that our students' perception of how much they've learned strongly correlate with learning outcomes

LEARNING OUTCOMES assessment

How do they relate? When Educational Benchmarking (EBI) approaches various academic institutions regarding the value of its benchmarking assessment studies, the most commonly asked question is, "How can assessment help to measure and improve learning outcomes?" Considering the goal of most higher education institutions is to accurately assess and improve learning outcomes, this question is far from surprising. Unfortunately, accurately measuring learning outcomes is difficult at best. Researchers can only take a snapshot image of a student's current knowledge and skills and then make inferences about how much that student learned from a particular class or teacher. Without the ability to utilize a pre- and post-test design, those measures are often imprecise at best. Researchers in many academic fields have been working to better understand learning outcomes and how to measure them for over 50 years.

Learning Assessment History

In 1956, Benjamin Bloom headed a group of educational psychologists whose goal was to better understand and assess student learning. They developed a classification of levels of intellectual behavior important in learning assessment: the psychomotor, affective, and cognitive.

Psychomotor learning is demonstrated by physical skills including coordination, dexterity, manipulation, grace, strength, and speed. While an important aspect of learning measurement, this domain is rarely included in learning outcomes measurements or concerns.

Affective learning is demonstrated by behaviors indicating attitudes of interest, attention, concern, and responsibility. This domain also relates to emotions, attitudes, appreciations, and values, such as satisfaction and respect.

Cognitive learning is demonstrated by knowledge recall and intellectual skills such as comprehension, organizing ideas, analyzing and synthesizing data, applying knowledge, choosing among alternatives in problem-solving, and evaluating ideas or actions. This domain on the acquisition and use of knowledge is the predominant measure of learning outcomes still used in the majority of classrooms today and is generally the only level considered in the learning outcomes measure.

Bloom's taxonomy, while very helpful in *understanding* learning, did not provide researchers with an adequate way of assessing learning. Since then, some researchers have chosen to use teacher-assigned grades as their measure for cognitive learning. However, since student grades are often influenced by arbitrary measures other than their actual learning (i.e., attendance, group projects and overall participation), these measures are only estimates and often biased by such things as student extroversion.

Student satisfaction with the learning experience is highly

In answer to these inherent difficulties of measuring cognitive learning, researchers in 1987 designed a method of measuring student *self-perceived* cognitive learning. Compared to tests of actual cognitive learning, this method proved to be highly accurate (85% to 93%) as well as easier to obtain. In 2000, this method of measuring perceived learning was empirically tested against other methods that measure cognitive learning. Results suggested a strong correlation ($p < 0.001$) between the measures. What does this mean? It means that our students have a fairly accurate idea of how much they have learned. As stated by West Virginia University professor of Instructional Communication Studies and expert in the learning measures field, Dr. James McCroskey, "Clearly, students generally have a good sense of what they have learned and are willing to self-report their perceptions in educational research." Therefore, when EBI asks students to what extent their program has enhanced their thinking, writing, presentation, and general skills abilities, we can have full confidence in our students' ability to accurately self-report their learning.

Increasing Learning

Discerning how much our students have learned is very important. However, as educators, our goal is also to *increase* learning. Once again, Dr. McCroskey's reminder: "We preach lifetime learning...this is our goal. The way to achieve this is through improving affective learning." Assessment provides us with a way of increasing lifetime learning through an understanding of our students' needs and concerns. Specifically, we can improve learning by working to increase student satisfaction with the learning experience.

Affective learning, once again, describes students' perceptions of the quality of their learning experience as well as their satisfaction with that experience. McCroskey asserts, "A person with negative affective learning may *intentionally* refuse to learn." When students perceive the quality of their experience to be high, however, they are more

James C. McCroskey

A professor in the Department of Communication Studies at West Virginia University. For 25 years (1972-1997) he served as chair of that department. His research on the role of communication in instruction has made a substantial impact in his field, as well as other unrelated fields. Dr. McCroskey's work on affective and cognitive learning has provided a new perspective on instruction and learning measurement, one that has received numerous awards not only from the communication field but also from such disparate fields as pharmacy and teacher education.

His awards include the Outstanding Teacher Award from West Virginia University and the Distinguished Research Award given by the National Association of Teacher Educators, 1982-83 and again in 1984-85.

Important Learning Outcomes Sources

Bloom, B. S. (Ed). (1956). A taxonomy of educational objectives. New York: Longmans.

Chesebro & McCroskey (2000). The relationship between students' reports of learning and their actual recall of lecture material: A validity test. Communication Education, 49 (3), 297-301.

Ellis (2000). Perceived teacher confirmation: The development and validation of an instrument and two studies of the relationship to cognitive and affective learning. Human Communication Research, 26 (2), 264-291.

McCroskey, Sallinen, Fayer, Richmond, & Barraclough (1996). Nonverbal immediacy and cognitive learning: A cross-cultural investigation. Communication Education, 45, 200-211.

Richmond, Gorham, & McCroskey (1987). The relationship between selected immediacy behaviors and cognitive learning. In M. A. McLaughlin (Ed.), Communication Yearbook 10 (pp. 574-590). Newbury Park, CA: Sage.

correlated with learning outcomes.

EBI Assessment

Educational Benchmarking (EBI) has been conducting benchmarking analysis from a student/client point of view since 1994. Since its inception, EBI has worked with more than 700 schools worldwide and has surveyed over three million faculty, staff, students and alumni.

Benchmarking, or the use of comprehensive comparative data as a tool for evaluating performance, has only recently been effectively utilized in higher education. With the introduction of high quality national benchmarking studies, institutions in higher education have finally begun to recognize the value of benchmarking as an assessment methodology to support accreditation reviews, introspection, strategic planning and continuous improvement initiatives.

Currently, EBI conducts assessment analysis in four academic areas: Management Education, Nursing Education, Teacher Education, and Engineering. AACSB International-the Association to Advance Collegiate Schools of Business and the American Association of Colleges of Nursing (AACN) have both joined forces with EBI to form important partnerships. Together we have developed the most powerful and highest quality assessment studies ever developed for higher education.

Over the years, EBI has collected evidence to support benchmarking as a tool for discovering, measuring, and improving student satisfaction directly and, indirectly, learning. Our aggregate findings indicate:

* Top predictors of overall student satisfaction in all four academic fields EBI currently surveys include quality of instruction as well as skills acquisition (or learning).

* For schools that have continuously participated in our studies, aggregate data suggests a statistically significant increase in satisfaction with instruction and/or skills learning.

likely to be motivated to work hard, study more, and practice more. The outcome? They learn more! In fact, researchers have found a strong 86% correlation ($p < 0.01$) between affective and cognitive learning. Therefore, if we can assess students' satisfaction with their classes, program, and teachers through benchmarking assessment, we can determine which areas to focus on to increase affective learning directly and, indirectly, increase future student cognitive learning.

And Assessment?

Assessment tools help administrators and program managers to not only analyze *current* learning, but also work to improve *future* learning through an understanding of student satisfaction. Assessment aids administrators and program managers in determining just how much *students* perceive they have learned and learning outcomes research tells us that we can trust students' self-perceived reports of learning as accurate and use those measures to determine the effectiveness of current courses and programs. Research also tells us that they can use the results from the benchmarking assessment to determine what areas most impact student satisfaction with their program and then work to improve satisfaction in those areas in order to increase affective learning and, in turn, future student cognitive learning.

Assessment helps educators meet their goals of both analyzing and improving learning outcomes.

For information on participating in an EBI assessment study:
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LEARNING OUTCOMES assessment

Enormous amounts of time, energy and resources are invested every year by higher education institutions in an effort to improve the quality of their academic programs-from the point of view of their students. Unfortunately, without comprehensive feedback from students and recent alumni, many resources are directed in areas that aren't very important to students.

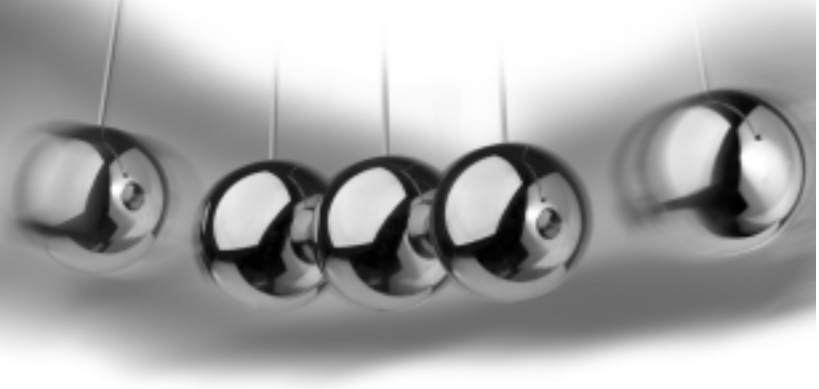
The value of measuring students' satisfaction with their educational experience and focusing on what is most important to them cannot be emphasized enough, especially when budgets are tight. During tough financial times, it is more important than ever to place scarce resources where it can have the greatest impact on student perceptions and yield the most benefit for your academic programs.

Comparative data is essential to:

- Fuel discussion of services, teaching effectiveness and curriculum
- Generate additional funding or help substantiate resource reallocation
- See the impact of change in programs over time
- Find out which factors are the most important to student satisfaction

The article you have just read shows that EBI's analysis can provide your program with a way to assess and improve student learning while serving simultaneously as a tool for accreditation reviews and strategic planning. Analyzing your program is vital for its continual improvement, and learning outcomes remain a top priority of that improvement. Let benchmarking assessment help you assure that your program provides the highest educational experience there is to offer.

EDUCATIONAL EBI BENCHMARKING



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