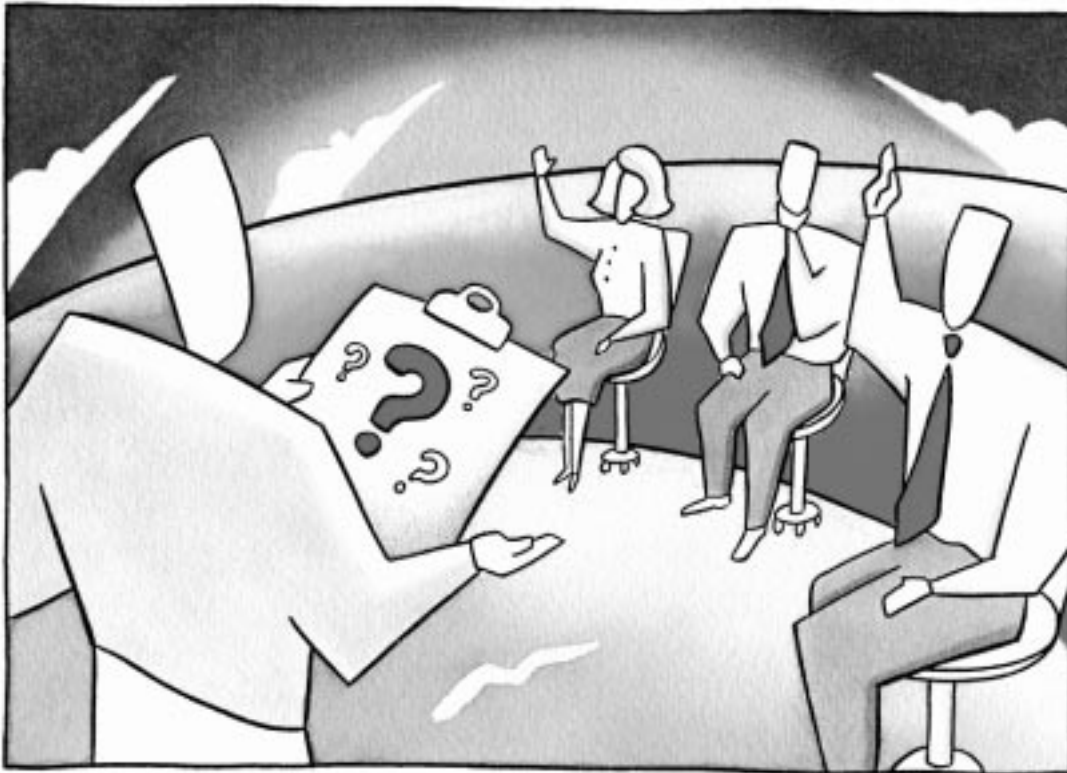


# Assessing Learning Outcomes

CONSORTIUM BENCHMARKING STUDY  
**BEST-IN-CLASS REPORT**



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## INSTITUTE FOR EDUCATION BEST PRACTICES AND MEMBERSHIP INFORMATION

The Institute for Education Best Practices (IEBP), a service of the nonprofit American Productivity & Quality Center (APQC), assists educational organizations in restructuring and improving administrative and academic processes at all levels by identifying, adapting, and implementing best practices across all industry sectors through benchmarking. IEBP has access to the resources of APQC's International Benchmarking Clearinghouse, which has approximately 500 business, healthcare, government, and education members.

For information about how to become a member of the Clearinghouse—another service of APQC—and receive publications and other benefits, call 800-776-9676 or 713-681-4020 or visit our Web site at [www.apqc.org](http://www.apqc.org).

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## STATEMENT OF PURPOSE

*The purpose of publishing this report is to provide a reference point for and insight into the processes and practices associated with certain issues. It should be used as an educational learning tool and not as a “recipe” or step-by-step procedure to be copied or duplicated in any way. This report may not represent current organizational processes, policies, or practices because changes may have occurred since the completion of the study.*

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# Sponsor Organizations

**Allstate Insurance Company**

**BellSouth Corporation**

**Bluefield College (Virginia)**

**California State University System  
and five campuses**

**Charles County Community College  
(Maryland)**

**Chase Manhattan Bank**

**College of New Rochelle (New York)**

**Connecticut State University System  
and four campuses**

**Cuyahoga Community College (Ohio)**

**DePaul University**

**Eastern Michigan University**

**Empire State College, SUNY**

**Howard Community College  
(Maryland)**

**Louisiana Tech University**

**Medrad, Inc.**

**Nova Southeastern University  
(Florida)**

**Oakton Community College (Illinois)**

**Stentor Canadian Network  
Management**

**SUNY Cortland**

**Tompkins Cortland Community  
College, SUNY**

**University of Findlay (Ohio)**

**University of Hawaii**

**University of Maryland University  
College (UMUC)**

**University of Minnesota**

**U.S. Department of Agriculture  
Graduate School**

**U.S. Internal Revenue Service**

**Virginia Polytechnic Institute  
and State University**

**Western Governors University**

# Partner Organizations

**Ball State University (Indiana)**

**Emporia State University (Kansas)**

**Fidelity Retail Investor Services**

**Sinclair Community College (Ohio)**

**Tennessee Valley Authority University**

**University of Phoenix**

# Executive Summary

**W**hy assess learning outcomes? Four reasons stand out: 1) *to know how effective you are*, 2) *to help improve instruction*, 3) *to be accountable to stakeholders*, and 4) *to help attract future customers or clients*. Knowing your own results is key to making progress in the other areas.

It is not easy to get good information on learning outcomes. To use information well presents further difficulties. It is a good idea to look ahead to possible challenges and obstacles when making plans for an assessment program.

## How Well Are You Doing?

If a key element of your organization's mission is to teach, there is no outcome more important than elicited learning. Whether a college or a corporate training division, learning is the intended product of instruction. Most teaching institutions today have accessible data on the number of hours spent in teaching; the credit hours and degrees generated; the proportion of instructors with doctorates; the grade point averages of the students; and even the percentages of entrants who obtain the targeted certificates, licenses to work, and degrees. But none of these outputs is a valid or reliable measure of what was learned.

Those who need to know the effectiveness of an instructional service—production managers, university administrators, students or employees whose learning is being measured, teachers, tuition-paying parents, or other stakeholders—must understand what was learned if they are to make intelligent judgments regarding the time and monetary value of the instruction.

What is learned in various instructional programs differs in substantial ways even among organizations with the same or similar educational missions. Is the primary goal the accumulation of knowledge or should the student also learn how to apply that knowledge appropriately in future work settings or citizenship roles? Should greater priority be given to enabling individuals to become highly effective learners early on or covering what specialists consider the most important knowledge in their fields? What balance between generic capabilities and occupationally specific skills should a particular instructional program achieve? To succeed, leaders of an institution need to be clear about what learning they strive to evoke and then determine by sound assessment how well they are meeting that goal.

Assessing the end-of-course knowledge and skills a student or trainee possesses and establishing what part of that was learned in the course or training program are two completely different tasks. Measuring learning gains requires preinstruction measures to compare end-of-instruction results. Proving the gains takes additional time and money and presents technical challenges in legitimately ruling out causes other than the instruction.

Each of these requirements of good assessment presents a challenge to those who teach. In addition, students in college and employees in training vary enormously in characteristics that affect their potential for learning. A recent study on risk and promise among working adults found that at least 18 factors besides traditionally studied demographic differences have statistically significant effects on such measures of success as grades, ratio of courses completed to courses attempted, and semesters completed. Mapping issues that teaching and support personnel face in helping such diverse students succeed reveals the inadequacy of programs built on the idea that one size can fit all.

The diversity of student characteristics interacts with the diversity of environments in which students and employees learn. The normal working adult has at least three primary environments impacting the likelihood of effective learning—work, home, and school. Thus, deciphering what learning may be attributed to the education and training program is an urgent and difficult undertaking.

### **Improving Teaching**

To improve, an instructor must know what results he or she is getting, use clues to past successes and failures to devise improvements, and check these hunches for the next round of improvement efforts. The supervisors of instructors need to make similar efforts and collaborate with the instructors to enhance results. The challenges identified previously provide a sense of the difficulty of this work. The rising demands of global competitiveness for enterprises and job competition for individuals make clear the urgency of progress toward coping with these challenges.

One of the benefits of benchmarking the assessment of learning outcomes is the opportunity to learn how others have handled challenges and obstacles in the use of outcomes data for instruction improvement. For example, the study team discovered through site visits that decentralizing assessment places ownership of the findings and insight into their meaning in the hands of those most involved in instruction and curricula development. This increases the likelihood that practical ways to improve will be found and promptly applied. By participating in this benchmarking study, sponsors were able to observe and question best-practice institutions more efficiently than if they had performed the search entirely on their own.

### **Being Accountable**

Americans have historically tended to trust institutions of higher education to offer good instruction and blamed poor performance on the students, their inadequate preparation, or other obstacles to success. This trust has eroded over time,

especially in the last two decades, as the costs of higher education have risen more sharply than income levels and the overall cost of living. At the same time, corporations have faced increasing competition domestically and abroad and have placed a greater emphasis on the effectiveness of their own training divisions to improve the productivity of their work forces. As training costs have escalated and the requirements for expertise in training have changed more rapidly, many corporations have found it more cost-effective to outsource some training tasks to colleges, universities, or other vendors. These trends have combined to generate unprecedented demands for more convincing evidence of the effectiveness of instruction, wherever provided.

It used to be a credible assumption that if an institution spent more than others on education per student, the higher-spending institution must be better. Fewer people accept this reasoning today. A report of actual learning achievements is the most persuasive evidence that can be presented.

This accounting needs to be provided in terms understandable to stakeholders such as business managers, taxpayers in a community college district, the parents of young students, and self-supporting workers returning to college to advance their careers. Comparative information on the achievement levels of graduates or the task-effectiveness gains of employees would be of considerable interest to many stakeholders. Legitimate comparisons of this kind are, however, difficult to develop because of the many factors interacting to alter the learning outcomes.

### **Marketing Your Service**

When investing savings, we like to know how well different stocks, bonds, mutual funds, or other kinds of investments have been performing. The same is true about buying education and training. Unfortunately, it is difficult to find unbiased and interpretable information on the performance of educators even though educators are unable to bury their mistakes.

Some of the best-practice institutions in this study have gathered data over a number of years about the careers of their graduates. Studies comparing the earnings of those who failed to complete high school, high school graduates, college graduates, and those with more advanced credentials have shown substantial and increasing advantages for those possessing higher credentials. Credentials, as noted earlier, are not a perfect correlate of learning or competence. The more persuasive evidence an educational enterprise can provide as to the knowledge and competence of its graduates, the greater its advantage in marketing its services.

In a nutshell, the four benefits of assessing learning outcomes are in knowing your product, using that knowledge to improve the product continuously, being able to give a good accounting of your labors and their costs, and attracting a continuing clientele. The four benefits are closely intertwined, and their enhancement is significantly aided by shared efforts to learn and adapt best practices to one's own enterprise.

—*Dr. Morris Keeton, subject matter expert  
University of Maryland University College*

## STUDY BACKGROUND

Early in 1997, the American Productivity & Quality Center (APQC) and University of Maryland University College (UMUC), represented by Dr. Morris Keeton, joined in developing a consortium benchmarking study to investigate best practices in assessing learning outcomes. The purpose of this multi-organization benchmarking study was to identify and examine innovations, best practices, and key trends in the area of assessment and to gain insights and learnings about the processes involved.

This study enabled participants to direct their own assessment processes more effectively and identify any performance gaps. It also afforded participants the opportunity to gain a better understanding of issues and challenges involved in improving and re-engineering the evaluation process. Forty-three institutions and businesses participated in the study by attending a series of planning sessions, completing data-gathering surveys, and attending or hosting on-site interviews. Six of the organizations were identified as having a strong assessment system in place and were invited to participate in the study as benchmarking “partner” organizations.

## STUDY SCOPE

The following scope defines the content and structure of the benchmarking study. Sponsors spent a day-and-a-half collaborating with the APQC project team and subject matter expert Dr. Morris Keeton to create this scope.

### Focus Area 1: Planning for Assessing Learning Outcomes

- Starting with self-evaluation
- Creating/improving an organizational plan for assessing learning outcomes
- Deciding what learning outcomes to assess
- Focusing on a variety of learning outcomes

### Focus Area 2: Deciding How Best to Assess

- Using diverse, appropriate methods of assessment
- Choosing, preparing, and supporting the assessors
- Determining when and how often to assess

### Focus Area 3: Managing the Assessment Process

- Using and applying assessment findings
- Coordinating assessment with other functions within the organization
- Coordinating assessment practice and results with other organizations

## STUDY KEY FINDINGS

Following are the 11 key findings that emerged from this study, divided into three topical sections that follow the study scope. The findings will be explored in detail throughout the remainder of the report.

1. Good assessment plans are strategic in nature. They clarify the purposes of the assessment activities and tie each to the organization’s mission, vision, and key goals.

2. Widespread involvement of all stakeholders, established early and maintained over time, yields an organizational culture that embraces assessment.
3. The adoption and implementation of an assessment plan is best begun promptly when the need is recognized and then allowed to evolve slowly. It is important to balance the need for buy-in with the time required for a sound implementation.
4. In-depth analysis and periodic review of the needs and interests of internal and external stakeholders drive the choice of which learning outcomes to assess and how they are assessed.
5. The use of multiple methods of assessment can enhance reliability. Additionally, to ensure that a process is valid and measures what it is intended to measure, each activity and instrument should be tied to its purpose and the strategy for achieving that purpose.
6. Integrating assessment with other ongoing performance improvement efforts within an organization enhances the long-term viability of the assessment program and its usefulness to the overall organization.
7. Successful organizations take a decentralized approach to assessment, pushing responsibility and ownership to those on the front lines.
8. Assessment is integral to learning and most effective when included as a responsibility for each member of the organization, as opposed to being an add-on effort.
9. The primary purpose of obtaining and reporting assessment findings is to improve the organization and, in particular, its employees' and students' learning. Accordingly, the findings are best used in non-punitive ways.
10. Educating those who will use the assessment data is the key to shifting the focus of assessment from the data to an overall process.
11. Best-practice organizations continually communicate the assessment activities and results to their constituents.

### **BENCHMARKING METHODOLOGY**

The past decade has seen wrenching change for many organizations. As firms have looked for ways to survive and remain profitable, a simple but powerful change strategy called “benchmarking” has evolved and become popular. Benchmarking can be described as the process by which organizations learn, modeled on the human learning process. A good working definition is “the process of identifying, learning, and adapting outstanding practices and processes from any organization, anywhere in the world, to help an organization improve its performance.” The underlying rationale for the benchmarking process is that learning by example, from best-practice cases, is the most effective means of understanding the principles and the specifics of effective practices.

Benchmarking is not a fixed technique imposed by “experts” but rather a process driven by the participants who are trying to change their organizations. It does not use prescribed solutions to a problem. Instead, it is a process through which participants learn about successful practices in business, healthcare, government, and education and develop solutions most suitable for their own organizations.

Benchmarking is not copying, networking, or passively reading abstracts, articles, or books. It is action learning, not simply a comparison of numbers or performance statistics. Numbers are helpful for identifying gaps in performance, but true process benchmarking identifies the “hows” and “whys” for performance gaps and helps organizations learn and understand how to perform at higher levels.

**Summary of Benchmarking Methodology**

There are two main phases in APQC’s consortium benchmarking methodology:

- selecting best-practice partner organizations, and
- learning from the best.

**Phase I: Selecting Best-Practice Partner Organizations**

A list of best-practice candidate organizations was developed through primary and secondary research conducted by APQC and UMUC. Suggestions were compiled from this research, as well as from periodicals, industry journals, and sponsor organizations. A screening survey was developed and sent to more than 93 candidate organizations, including sponsors. Forty-three of the surveys were completed. Responses from these surveys were analyzed and presented to the study sponsors at a February 1998 review meeting in Houston.

Based on the screening survey data and other information collected by the study team, sponsors selected seven best-practice organizations. Six of these organizations accepted the invitation to join the study as best-practice partners.

**Phase II: Learning from the Best**

The sponsor group and study team developed a site visit discussion guide for use as the Phase II data collection tool. The six best-practice partners hosted subsets of the sponsor group on facilitated site visits, during which key personnel were asked questions from the site visit discussion guide. Excerpts from the site visit summaries are included throughout this report.

The following table summarizes Phases I and II.

	<b>Approach</b>	<b>Purpose</b>	<b>Deliverable/Outcome</b>
<b>Phase I</b>	◆ Conduct primary and secondary research	◆ To identify best-practice partner candidates	◆ List of partner candidates
	◆ Administer screening survey	◆ To screen partner candidates	◆ Identification of best-practice partners ◆ Screening Report
<b>Phase II</b>	◆ Conduct site visits	◆ To extract innovative practices	◆ Site Visit Summaries ◆ Final Report

**ABOUT APQC AND THE INSTITUTE FOR EDUCATION BEST PRACTICES**

The American Productivity & Quality Center is a nonprofit source for performance improvement and decision support—information and knowledge, networking, research, training, and advisory services.

Dr. C. Jackson Grayson Jr., APQC chairman, began investigating in 1995 whether benchmarking was being done in education and whether benchmarking could help educators and policy-makers improve the quality of learning, decision making, and strategy building in this critical area. His research revealed that, with few exceptions, no one in higher education was systematically exchanging best practices. This finding catalyzed APQC to establish the Institute for Education Best Practices to help education organizations transfer best practices through benchmarking—best practices from not only education but also business, government, and healthcare.

In 1992 APQC and 86 leading companies designed APQC's International Benchmarking Clearinghouse to help managers and leaders find and adapt best practices. Organizations of all sizes and industries partner with APQC to discover global best practices and grow into learning organizations.

For more information, or to contact APQC, please see the organization's home page at [www.apqc.org](http://www.apqc.org).

**ABOUT UNIVERSITY OF MARYLAND UNIVERSITY COLLEGE**

University of Maryland University College is one of 11 degree-granting institutions in the University System of Maryland. Its specialized mission is to serve adults in the work force. UMUC enrolls 75,000 students a year worldwide, including U.S. service members, civil servants, and their families stationed throughout Europe and Asia. UMUC offers classroom-based courses overseas and at 25 locations in the Maryland/Washington, D.C. area. UMUC, a leading "virtual university," also offers courses via distance education, serving more than 6,000 students worldwide in 1997. UMUC celebrated its 50th anniversary in 1997.

For more information, or to contact UMUC, please see the institution's home page at [www.umuc.edu](http://www.umuc.edu).

**SUBJECT MATTER EXPERTISE**

Dr. Morris Keeton, director and senior scholar at the Institute for Research on Adults in Higher Education—University of Maryland University College (IRAHE), served as the subject matter expert for this study.

He is co-leader of a multinational study on the recognition of extracollegiate learning and work force development in which IRAHE collaborates with the Learning From Experience Trust of Great Britain. The topics covered in his writings range from the theory of knowledge and ethical theory to experiential learning and its assessment to work force development to the theory of adult learning.

Dr. Keeton was the chief executive officer of the Council for Adult and Experiential Learning (CAEL) from 1977 to 1989 and chairman of the steering committee of CAEL's predecessor project managed by Educational Testing Service. He served on the

faculty of Antioch College for 30 years, was active on its Examinations Committee, and served as its chief academic officer for 14 years. Antioch pioneered the recognition of learning by assessment as early as 1942 and, beginning in the early 1920s, required all students to integrate work and study experiences. Dr. Keeton also served as an institutional evaluator for the North Central Association of Colleges and Schools from 1959–1977.