The Ultimate Guide to Learning Outcomes Assessment

CAPSIM®
Unforgettable Business Learning

What is Learning Outcomes Assessment?

Learning outcome assessment refers to the systematic process of collecting and analyzing data about student learning and using this information to continuously improve degree programs and educational quality. Simply put, learning outcome assessment ensures that your college or institution is arming students with the knowledge and skills needed for a successful career post-graduation.

The learning outcomes assessment process will generally include the following steps:

- Defining learning goals and outcomes.
- Aligning goals with program curriculum.
- Assessing student learning and outcomes.
- Collecting and analyzing outcomes data in order to draw conclusions.
- Applying data-driven conclusions to improve program and enhance educational quality.

Organizations responsible for accrediting schools and other institutions emphasize the importance of a thorough learning outcome assessment process. Such organizations, or accrediting bodies to be precise, include the Association to Advance Collegiate Schools of Business (AACSB), the Accreditation Council for Business Schools and Programs (ACBSP), and the International Assembly for Collegiate Business Education (IACBE).

Each accrediting body has specific requirements, standards, or principles that require institutions to document their learning outcome assessment process and show that it is linked to evidence-based interventions to improve program and educational quality. Let's take a closer look at the standards that are relevant to learning outcomes assessment.

AACSB Standard 8

"The school uses well-documented, systematic processes for determining and revising degree program learning goals; designing, delivering, and improving degree program curricula to achieve learning goals; and demonstrating that degree program learning goals have been met."

ACBSP Standard 4

"Business schools and programs must have an outcomes assessment program with documentation of the results and evidence that the results are being used for the development and improvement of the institution's academic programs. Each business program is responsible for developing its own outcomes assessment program."

IACBE Principle 1

"Academic quality in business programs is evaluated through the assessment of the academic business unit's intended student learning outcomes. This requires the academic business unit to have developed and fully implemented an outcomes assessment process. This process includes an outcomes assessment plan for its new business programs, the identification of necessary changes and improvements as a result of implementing the plan, the integration of those changes into its strategic planning process, and the documentation of realized outcomes."

If your school or institution is seeking accreditation, what's the first step in demonstrating you're complying with standards or principles? The first step is to self-evaluate your program in order to identify strengths and weaknesses and validate the effectiveness of your learning outcomes assessment process.

A Crash Course in Program Evaluation

As mentioned above, accrediting bodies expect you to be making continuous improvements to program and educational quality. Self-evaluation and reflection can provide you with the information and data needed to do just that. Yet, many who are responsible for learning outcome assessment find that significant challenges arise around how to best go about measuring learning itself. The good news is that there is a rich body of scholarship on program evaluation that can help overcome these challenges. Applying the principles of program evaluation to accreditation requirements essentially revolves around four key questions:

- **What do we want to instill?**
- **How do we measure it?**
- **When do we measure it?**
- **Why are we doing this?**

What Do We Want to Instill?

The answer to this question is determined by the content of an institution's learning goals. Specific learning goals for business schools often pertain to content such as:

- **Demonstrate knowledge** of the functional areas of business and the interrelationships among the functional areas within a business.
- Be able to **systematically apply** tools of quantitative analysis and modeling to make recommendations and business decisions.
- **Understand and apply** effective written and oral communication skills to business situations.
- **Demonstrate critical thinking skills** using cross-disciplinary decision-making to identify, analyze, and solve business management problems and issues.

- **Recognize and address** ethical and legal issues confronting today's businesses.
- **Know and appreciate** the multicultural and international issues that impact business and operations in a global society.
- **Demonstrate** the ability to lead and work effectively with others to accomplish collective goals and tasks.

Even though learning goals can determine what topics and skills are taught to students, they don't necessarily reveal what learning actually "looks like." In order to determine this, you should highlight what each goal is asking students to demonstrate. For example, looking across the bolded verbs above reveals how students should accomplish the goals, whether it be acquiring functional knowledge, demonstrating key skills, or gaining insight into important issues facing businesses today.

It's important to gain a deeper understanding of the outcomes that result from the learning process before attempting to measure learning. Program assessment literature defines learning as being multidimensional or multifaceted. According to this literature, the learning process results in three primary outcomes: affective, behavioral, and cognitive outcomes.

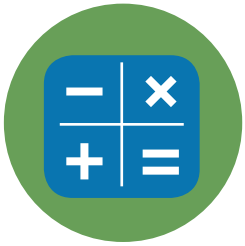
Affective Outcomes

- Attitude-based (i.e., content-specific attitudes, self-efficacy, etc.)
- Examples include attitudes toward business ethics, social responsibility, evidence-based decision making, and how people feel about learning itself.

Behavioral Outcomes

- Skill-based (i.e., proficient demonstration, successful application of knowledge, etc.)
- Examples include oral and written communication skills, interpersonal skills, and teamwork behavior.

Cognitive Outcomes



- Knowledge-based (i.e., recall of facts, principles, rules, models, etc.)
- Examples include knowledge of standard accounting principles, business and employment law, theories of business, as well as other discipline or functional-based knowledge.

Due to the constraints of higher education contexts, business schools spend the majority of their time teaching, assessing, and measuring cognitive, knowledge-based outcomes. Unfortunately, this creates what has been termed the "knowing-doing gap" in business education, where a substantial disconnect exists between what students know and how skillfully they can apply such knowledge. Part of this gaps results from the lack of focus on behavioral and affective outcomes.

Now that we have covered some basics about identifying the types of learning outcomes reflected in your learning goals, the next pertinent question becomes how do you go about accurately measuring these outcomes?

How Do We Measure It?

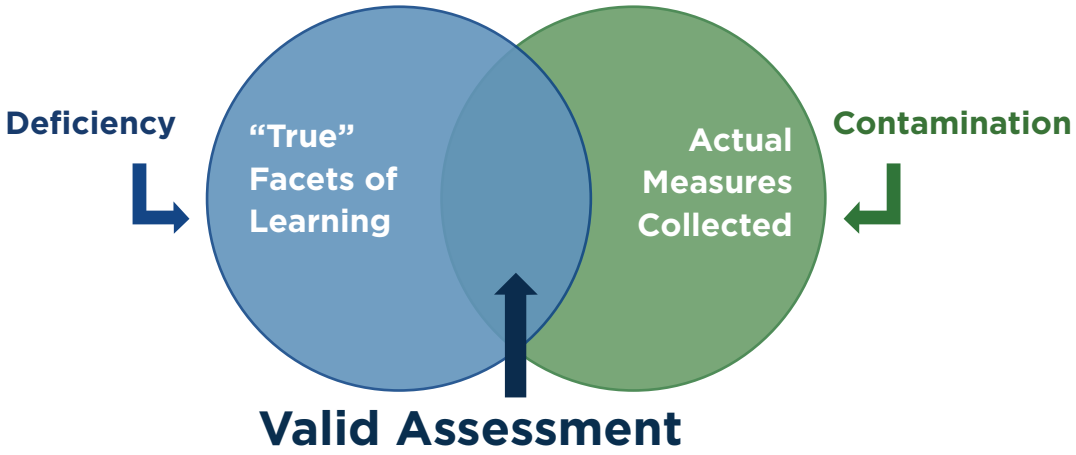
There are a host of assessment methods that can be brought to bear in higher education to measure learning outcomes. Examples include:

- Essay Exams
- Assessment Centers
- Homework Assignments
- Self-reflection Papers
- Business Simulations
- Case Analyses
- Peer Evaluations
- Group Term Projects
- Multisource (360) Surveys
- Term Papers
- Multiple-choice Exams
- Oral Presentations

While methods are useful for measuring student learning, it's important to recognize that some methods are better for measuring certain types of learning outcomes over others. Put another way, **these methods are not interchangeable in how well they assess the knowledge, skills, or attitudes represented in your learning goals.**

So how do you link assessment methods to the three learning outcomes you want to assess? First, you must accept that learning assessment is always imperfect. No matter what method you decide to implement, there will always be some measurement limitations. This fact has been called the 'Criterion Problem' in the program evaluation literature and refers to the inherent difficulty that comes with measuring multidimensional concepts such as learning.

The Venn diagram below depicts the nature of the 'Criterion Problem.'



The blue circle represents the entirety of learning ("true learning"), while the green circle represents what is actually measured by your chosen assessment methods. Even If you're optimistic about the learning assessment process at your institution, it is important to recognize that complete overlap between the two circles is unattainable. This results in **contamination** and **deficiency**.

- **Contamination:** created by things we assess that aren't true learning (i.e., noise or error). This can be thought of as metrics that fill your spreadsheets, but are irrelevant to the validity of your reports.
- **Deficiency:** characterized by things we should be assessing about learning, but we're not.

In order to increase valid assessment, or the measures collected that relate to true learning, you must try to maximize the overlap between the true facets of learning and the metrics you collect. This can be accomplished by utilizing more than one assessment method at a time. For example, pairing a group term project with a 360-survey would allow you to measure topic knowledge (cognitive outcome) while also measuring teamwork (behavioral and affective outcomes).

Certain methods are better than others for measuring a specific learning outcome. The chart below summarizes the linkages between the three learning outcomes and their optimal assessment methods.

Learning outcomes	Learning concept	Measurement focus	Optimal assessment methods
Cognitive	Declarative knowledge	Knowledge breadth, recall accuracy, recall speed	Written/oral exams; recognition (e.g., m-c test) or recall (e.g., essay)
	Knowledge organization	Idea similarity, taxonomic ordering	Concept mapping, mental models
	Cognitive strategies	Procedural knowledge, problem solving	Case scenarios, problem sets
Behavioral	Skill acquisition	Procedural compilation, application proficency	Simulations, assessments centers, role plays, presentations
	Automaticity	Automatic processing, fluency, frequency	Behavioral observation, performance ratings
Affective	Attitudes	Focal construct, (e.g., self-efficacy), attitude strength	Self-reports using validated scales
	Motivation	Effort, Engagement, persistance, goal difficulty	Self-reports, observations, time-on-task, participation rates

Source: Rubin & Martell (2009)[1]

Now that we've addressed the various ways to measure learning, let's turn toward the key questions about when measurement can (or should) occur.

When Do We Measure It?

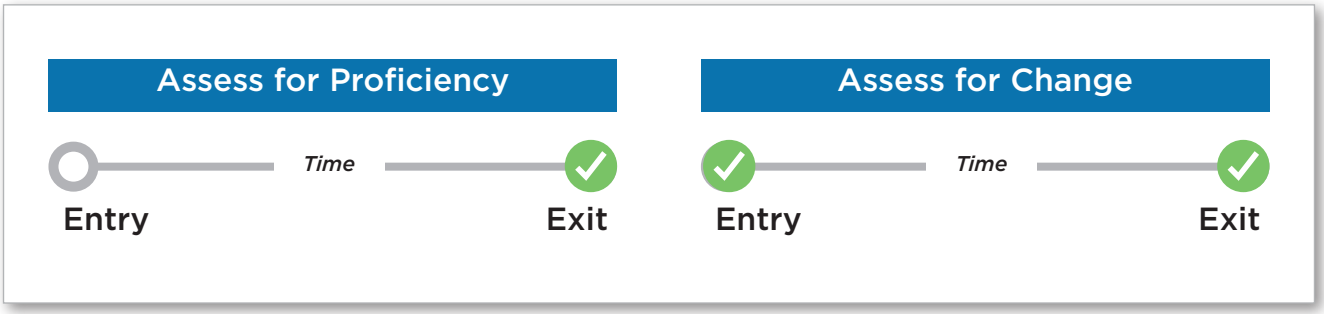
The timing of learning assessment boils down to answering the following two questions:

1. What kind of conclusions do you want to draw from learning assessment?
2. Where do you expect the learning outcomes to occur?

In order to determine the timing of your learning assessment, you must first decide if your goal is to assess for proficiency or to assess for change.

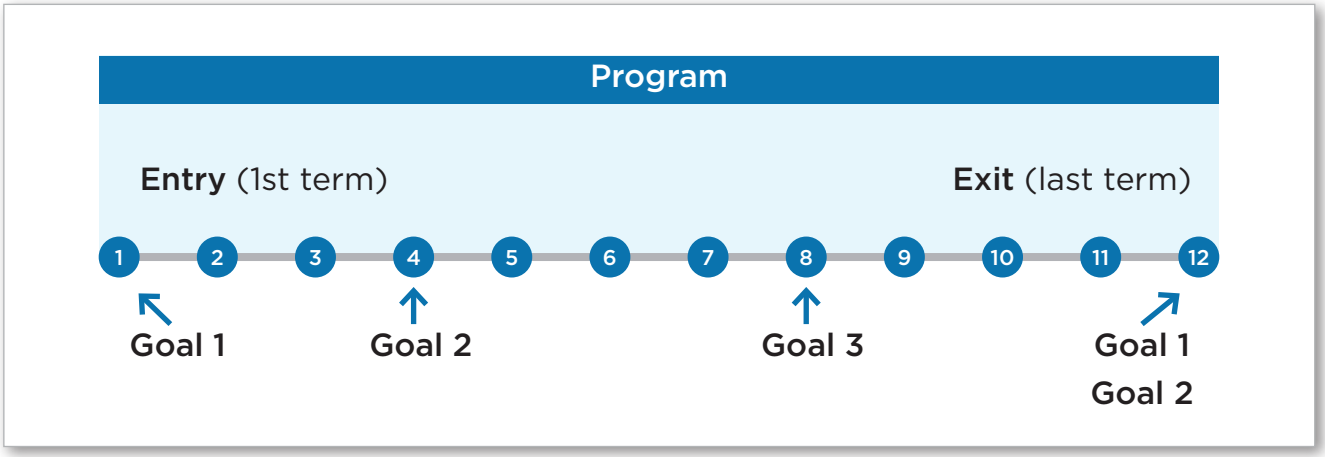
Assessing for proficiency means your main interest is measuring the level of learning that has occurred after going through a given program (or set of courses); thus, assessment is implemented at the end of your program (or set of courses).

Assessing for change means your main interest is measuring how learning has changed over time (i.e., growth); thus assessment is implemented at multiple time points such as at the beginning and end of your program (or set of courses).



In order to determine where the learning assessment should be implemented, you must consider the entirety of your program. Where is the content you would like to measure most likely to be taught by instructors and demonstrated by students?

The example below shows a program with twelve core courses and three desired learning goals.

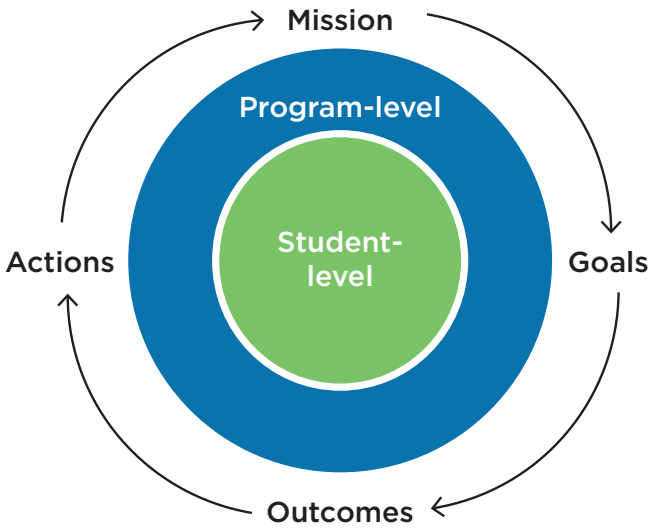


The example above shows that the measurement focus is on assessing for change with regard learning goal 1 and 2. Therefore, learning for these goals is assessed near the beginning and at the end of the program. For goal 3, the measurement focus is on assessing for proficiency and thus, learning is assessed once after the point at which it should have occurred. This point of assessment was determined by identifying when students are most likely to be able to demonstrate knowledge and skills regarding goal 3 (i.e., during the 8th course).

As the example above displays, the timing and location of learning assessments is specific to each program and each goal in your institution. Let's now shift to the broader question as to the rationale or overall purpose of assessment.

Why Are We Doing This?

Of course, many faculty and staff implement learning assessment simply at the request of a dean or administrator. However, we have to remember that there's a far more important reason for doing it – **to ensure educational quality for our students**. Ideally, the improvement of educational quality occurs through a continual feedback loop.



As you can infer from the graphic above, educational quality begins with your institutional or program mission. This mission then informs the specific learning goals you choose to assign to your program. Once you assign specific learning goals, it's your responsibility to figure out the outcomes that inform and measure these goals. Finally, the outcomes and results allow you to take actions to improve educational quality and determine if you are fulfilling your mission.

We covered quite a bit of ground so far with regard to self-evaluating your program. To summarize, we discussed tools that apply to:

- Understanding the three outcomes that result from a multidimensional learning process.
- Identifying how, when, and where to effectively and efficiently implement learning assessment.
- Implementing a continual feedback loop to ensure educational quality.

Improving the quality of your program is only the first step. Next, how do you effectively document your learning outcome assessment process to reviewers and accrediting bodies?

From Results to Reports: Compliance and Beyond

Once institutions reach the documentation stage, administrators and faculty alike often feel a sense of relief generated by the impression that their job is almost complete. Unfortunately, the realization that much work remains quickly sets in and such relief is short-lived. This “work” is the critical final step of constructing effective accreditation documentation. Simply put, all of the data and information must be analyzed and interpreted, and the various decisions about what is to be done based on these data described in detail.

Learning outcome assessment documentation can be misrepresented as just a single report. In reality, an accreditation report is actually comprised of many more specific reports, all presenting different kinds of information about learning outcomes, often in drastically different formats.

Beyond standard reporting templates, how do you move from a merely acceptable report to a truly excellent report? Templates provided by accreditation bodies only address structure while ignoring content. In addition, sample reports from other schools don’t always fit what your institution is doing and don’t necessarily apply to your learning goals.

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Structure and Content of Effective Learning Assessment Reports

AACSB Standard 8

"...well-documented, systematic processes for determining and revising degree program learning goals; designing, delivering, and improving degree program curricula to achieve learning goals; and demonstrating that degree program learning goals have been met."

ACBSP Standard 4

"...must have an outcomes assessment program with documentation of the results and **evidence that the results are being used for the development and improvement** of the institution's academic programs."

IACBE Principle 1

"...the identification of **necessary changes and improvements** as a result of implementing the plan, the integration of those changes into its strategic planning process, and the documentation of realized outcomes."

As highlighted by the bolded phrases above, all three accrediting bodies emphasize the capturing and operationalizing of data around learning goals with the aim of improving program quality and student learning.

There are two success factors that can generally help institutions demonstrate how they capture and operationalize data with the aim of ensuring education quality. The learning outcome assessment process at your institution should be **standardized**, **rigorous**, and should include **multi-method**, **high-quality data**. The documentation process becomes more difficult when these features aren't designed into the learning assessment process at your institution.

The structure and content of effective reports includes the following general sections:

1. **Description of the Standard**: verbatim description of the accrediting body standard or principle.
2. **College Mission and Program Learning Goals**: mission explanation and rationale for chosen learning goals.
3. **Overall Assessment Philosophy**: rationale for overall assessment design.
4. **Learning Goal-Objective Linkage**: college-level goals linked to specific outcomes.
5. **Goal-by-Goal Results and Actions**: description and interpretation of findings and action plans.

Those tasked with documentation often seem to struggle the most with the sections 3, 4, and 5. We'll therefore turn our focus to these areas; discussing what reviewers expect to see in each section and the differentiators you can include for improving your reports.

Overall Assessment Philosophy

This section must demonstrate that your program or institution is utilizing a robust systematic process for learning outcomes assessment. Furthermore, it should also show that your assessment design is embedded in the broader program evaluation literature and relying on high quality assessments. Let's discuss various expectations and differentiators for this section.

Reviewers expect you to:

- Discuss the rationale for the overall assessment design.
- Emphasize standardized and/or high quality assessments.
- Capture multiple learning outcomes.
- Use blended or multi-method data collection tactics.

Differentiators include:

- Integrating language and references to the large body of literature on program evaluation.
- Discussing the measurement of proficiency or the capture of data at the end of a program to show students have reached a certain level of proficiency.
- Discussing the measurement of change or the capture of data across the program to show growth and learning acquisition.
- Attaching assessment instrument technical reports as appendices.

Learning Goal-Objective Linkage

This section is meant to create a clear, comprehensive, and understandable roadmap of your learning goal-objective linkage. This roadmap should ultimately allow reviewers to see the "big picture" and understand your learning outcomes assessment process while making your report easy to read. The following expectations and differentiators will improve your reports.

Reviewers expect you to:

- Link college-level goals to specific objectives/outcomes for each one of the academic programs being offered in your college.
- Provide a general description of goals-by-program objectives.
- Provide a concise explanation about ***how*** the objectives were chosen.
- Provide a concise explanation about ***why*** the objectives were chosen.

Differentiators include:

- Providing structured, well-organized, concise descriptions.
- Addressing knowing and doing outcomes – not just knowledge acquisition, but the skilled application of that knowledge.
- Discussing the specific courses where learning assessment occurs and why.

This can be accomplished by harnessing what we'll call the "magic of matrices."

Let's explore how you can use matrices in learning outcome assessment reports to create the following roadmap:

A. College Goals → Degree Program

B. Program Goals → Learning Objectives

C. Objectives → Methods and Locations

D. Objectives → Methods → Metrics Produced

A. College Goals → Degree Program

College Learning Goals	Degree Programs		
	MBA	MSF	MSHR
Demonstrate knowledge of core business functions and the ability to integrate business functions in organizations.	✓	–	–
Demonstrate the ability to ability to apply effective communication skills to business situations.	✓	✓	✓
Able to systematically apply tools of quantitative analysis and modeling to make recommendations and business decisions.	✓	✓	–
Demonstrate the ability to lead and work effectively with others to accomplish collective goals and tasks.	✓	–	✓
Recognize and address ethical and legal issues confronting today's businesses.	✓	✓	✓

B. Program Goals → Learning Objectives

MBA Learning Goals	Learning Objectives
Demonstrate knowledge of core business functions and the ability to integrate business functions in organizations.	A. Be able to strategically integrate information across various business functions (e.g. accounting, marketing, operations, etc.)
Demonstrate the ability to apply effective communication skills to business situations.	A. Demonstrate effective presentation and oral communication skills.
	B. Be able to effectively communicate business information in a written format.
Demonstrate the ability to lead and work effectively with others to accomplish collective goals and tasks.	A. Know leadership fundamentals and demonstrate leadership skills.
	B. Understand group dynamics and be an effective contributor to project and management teams

C. Objectives → Methods and Locations

Learning Objectives	Assessment Method	Assessment Location
Be able to strategically integrate information across various business functions (e.g. accounting, marketing, operations, etc.)	Comp-XM® Case Analysis	BUS 600 (MBA Capstone) BUS 505 (Market Management)
Demonstrate effective presentation and oral communication skills	Capsim360® Oral Presentation	BUS 500 (Leadership) BUS 600 (MBA Capstone)
Be able to effectively communicate business information in a written format	Term Paper (GTM strategy)	BUS 555 (Entrepreneurship)
Know leadership fundamentals and demonstrate leadership skills	Capsim360® Final Exam	BUS 500 (Leadership)
Understand group dynamics and be an effective contributor to project and management teams	TeamMATE®	BUS 501 (Financial Accounting) BUS 505 (Market Management)

D. Objectives → Methods → Metrics Produced

Objective	Method	Metrics	
Goal 1A: Cross-functional Knowledge Integration	**Comp-XM** (MBA Capstone)	**Simulation Decision Outcomes**: 1. Financial • Stock price • Profits • Leverage (assets-to-equity) 2. Internal Process • Contribution margin • Plant utilization levels • Days of working capital • Stock-out costs • Inventory carrying costs 3. Learning and Growth • Employee turnover rate • Employee productivity • Material reduction • R&D reduction • Administrative cost reduction • Customer demand increase 4. Customer • Overall awareness • Overall accessibility • Customer survey score • Accounts receivable lag • Cumulative R&D cycle time • Unit share in product segments	**Test Question Topics** • Break Even Analysis • Understanding the Accounting Equation • Revenue Recognition • Identifying Fixed vs. Variable Costs • Calculating Book Value • Identifying Change in Equity • Interpreting the Cash Flow Statement • DuPont Analysis • Calculating Dividend Yield • Effects of Change in Depreciation • Calculating Simple Ratios • Calculating Ratios from the Annual Report • Calculating Stock Repurchase • Cash Management • Identifying Marketing Efficiency • Forecasting • Creating Marketing Budgets • Identifying Competitors Using the Four P's • Demand Analysis • Identifying Price Elasticity • Market Sizing • Operational Impact of Unit Margin • Capacity Analysis and Plant Utilization • Determing Acceptable Inventory Levels • Cost of Right-Sizing Plant • Calculating Productivity Impact • Calculating Future Labor Wages

Objective	Method	Metrics
Goal 3A: Leadership	**Capsim360®** (Leadership)	**Ratings from managers, peers, and direct reports measuring 9 managerial skill domains:** • Administrative skills • Interpersonal skills • Communication skills • Leadershilp skills • Motivational skills • Ethical skills • Service skills • Citizenship skills • Technical skills
	Exam (Leadership)	**6 final exam questions (4 multple-choice, 2 essay) testing knowledge on:** • Leadership theories • Motivational tactics • Power & influence
Goal 3B: Teamwork	**TeamMATE®** (Financial Acct.) (Marketing Mgt.)	**From two different courses:** **Grades/scores on team projects + Peer evaluations on 7 aspects of teamwork:** • Preparation • Execution • Monitoring • Adjustment • Work Quality • Work Quantity • Accountability

Goal-by-Goal Results and Actions

This section is an opportunity to demonstrate that you're learning outcomes assessment process is using learning assessment results to enhance program and educational quality. It must show that you've compiled and analyzed all of your learning assessment data, made relevant conclusions, and planned result-driven and evidence-based interventions. You can accomplish this with the following expectations and differentiators.

Reviewers expect you to:

- Provide a description and interpretation of findings and consequent action plans.
- Present descriptive statistics like means, standard deviation, and percentages.
- Provide an interpretation of the data like trends and takeaways.
- Describe specific actions to be taken based on the results.

Differentiators include:

- **Presenting data in both tabular and graphical formats.**
- **Setting and interpreting student performance benchmarks and/or rubrics.**
- **Using inferential statistics like Cohen's d, odds-ratios, and correlations.**
- **Describing the dissemination and discussion of results with internal stakeholders.**
- **Having clear evidence-based actions to close the loop and link actions to data.**

In order to ease your understanding, let's see an example of how you could present your data and statistics in tabular and graphical formats.

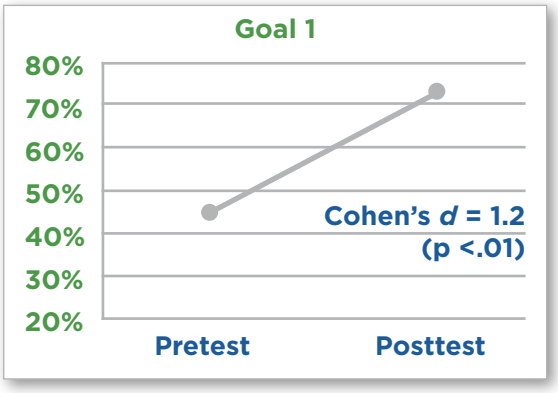
Present descriptive statistics

Cumulative (AY 2013-2016)	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5
Mean	61.62%	61.07%	57.45%	57.14%	52.81%
Std Dev	0.178	0.179	0.197	0.189	0.194
Min	2.64%	5.00%	4.54%	5.69%	3.00%
Max	97.72%	100.00%	92.71%	93.66%	100.00%
N	355	375	405	405	352
Percentage of Students Above 50%	78.0%	81.6%	69.9%	76.2%	84.5%
Percentage of Students Above 60%	69.4%	69.9%	52.3%	60.1%	45.8%
Percentage of Students Above 70%	47.5%	48.5%	43.8%	40.6%	32.2%
Percentage of Students Above 80%	16.3%	20.4%	23.3%	21.9%	13.1%
Percentage of Students Above 90%	9.2%	14.6%	10.7%	12.2%	8.7%

Setting and interpreting student performance benchmarks

Benchmark Interpretations
• Does not meet expectations (below 50%) • Meets expectations (50-70%) • Exceeds expectations (above 70%)
***overall thresholds or vary the levels by each goal**

Using inferential statistics



Having clear evidence-based actions to close the loop and link actions to data

MBA Program Goal 1A: Cross-functional Knowledge Integration

Method	Metrics		+/-
Comp-XM (MBA Capstone)	**Simulation Decisions:** 1. Financial • Stock price • Profits • Leverage 2. Internal Process • Contribution margin • Plant utilization levels • Days of working capital • Stock-out costs • Inventory carrying costs 3. Learning and Growth • Employee turnover rate • Employee productivity • Material reduction • R&D reduction	**Test Questions:** Break Even Analysis Understanding the Accounting Equation Revenue Recognition Identifying Fixed vs. Variable Costs Calculating Book Value Identifying Change in Equity Interpreting the Cash Flow Statement Understanding Carrying Values on Balance Sheets DuPont Analysis Calculating Dividend Yield Effects of Change in Depreciation Calculating Simple Ratios Calculating Ratios from the Annual Report Calculating Stock Repurchase	- - - = = = = - = = - + + =

Benchmarks

Financial Accounting

You've now identified the structure, content, and format that will transform your learning assessment report from being merely acceptable to excellent. Like mentioned before, accrediting bodies want you to capture and operationalize data with the goal of improving program quality and student learning. Next, we'll discuss the creation and implementation of evidence-based learning interventions.

The What, When, and How of Learning Interventions

The creation and implementation of learning assurance interventions is impacted by following three challenges:

- Drawing meaningful conclusions
- Designing practical interventions
- Addressing application obstacles

Let's delve deeper to define solutions for each challenge.

Drawing Meaningful Conclusions

Solving this challenge requires understanding and considering the following:

The Need for Specificity

You should deploy a systematic roadmap of the assessment process. This can be accomplished by implementing the previously discussed magic of matrices to:

- Describe learning goals for your college.
- Link learning goals to different programs in your college.
- Link learning goals to specific objectives.
- Link objectives to how and where they're measured.
- Link objectives to the metrics that operationalize them.

The Criterion Problem

You should understand that measuring multidimensional concepts like learning has the following implications:

- No single outcomes measure will ever be perfectly valid.
- Recognize that adding/revising measures is input to learning outcomes assessment (i.e., changes for the next measurement cycle).
- Arguing about the measures is unproductive when at the stage of interpretation and taking action.

The Context of the Numbers

It's important to contextualize the information for both internal and external stakeholders. You should interpret the benchmark levels and the aggregated program results by:

- Building rubrics to describe what performance levels mean.
- Determining the difficulty levels of specific assessments.
- Using student-level data to draw student-level conclusions.
- Integrating demographics to deepen understanding (majors, transfer status, enrollment sequence).

Designing Practical Interventions

Solving this challenge requires identifying and balancing the following:

The Needs of the School and Students

It's important to balance the needs of the school, measuring program learning goals for accreditation documentation, and the needs of the students, developing relevant knowledge and skills that will lead to sustained career success. In order to design effective interventions, you must think about those most affected by the interventions – the students.

The Dual Approaches to Evaluation

A balance between the summative assessment approach and the formative assessment approach is needed to design learning outcomes assessment interventions. The summative assessment approach encompasses:

- Evaluating learning.
- Documenting outcomes.

While summative assessment is conducted most often in the learning outcomes assessment processes, the formative assessment approach is still critical because it can help identify ways to close the loop with practical interventions. The formative assessment encompasses:

- Monitoring learning.
- Enhancing the data collection process over time.
- Asking faculty about the effectiveness and impact of your learning outcomes assessment process.

The Types of Possible Interventions

You can implement program-level and student-level interventions. Program-level interventions include:

- **Admission Requirements:** make it harder to gain entry into your program by asking for better test scores, more experience, etc.
- **Within-course revisions:** adding new content, having an increased emphasis on certain content, or increasing the number of opportunities students have to practice their knowledge.
- **Curriculum Revisions:** adding a new course or adding new assessments to an existing course.
- **Co-curricular Revisions:** emphasize certain content within 'boot camps' and speaker series.

Student-level interventions include:

- **Onboarding Activities:** preparatory modules and targeted training.
- **Career Development:** directed career coaching.
- **Skill-related Assessments:** developmental assessments and simulation-based Assessments.

Addressing Application Obstacles

Solving this challenge requires focusing and anchoring the following:

The Conversation to Program Quality

In order to aid the continuous improvement of program quality through evidence-based actions, you must center the conversation on program quality. This will allow internal stakeholders to buy in to the interventions being implemented.

The Interventions to Content, Not Faculty

Actions and interventions must be about improving the program, curriculum, and students. In order to avoid faculty members from becoming defensive and impeding learning outcomes assessment efforts, you shouldn't tie interventions to a faculty member's performance or competence. In order to get over this obstacle, it's recommended that you take a page out of effective organizational consulting by:

- Gaining agreement on the importance of the focal content.
- Discussing how the content is currently taught, practiced, and assessed.
- Exploring ways to improve effectiveness of content delivery, practice, and assessment.
- Building in measurement checkpoints for continuous feedback.

The True Purpose to Students' Careers

The ultimate reason for doing what you're doing is to ensure educational quality in order to boost your students' careers. You can boost the engagement and usefulness of your learning assessments and interventions by:

- Making sure they enhance the perception of utility or career relevance.
- Using interventions with higher fidelity to improve the realness of assessments.
- Utilizing interventions that boost both knowledge and skills in order to reduce the knowing-doing gap and increase impact and relevance.
- Delivering actionable feedback for building competencies.

Being responsible for your institution's learning outcomes assessment documentation can put you in a tough situation. In fact, most individuals tasked with this have never received any formal training in program evaluation. To this point, there are certain assessment products designed to assist with accreditation documentation and learning interventions.

Solutions to Learning Outcomes Assessment

Even if you're trained in program evaluation and learning outcomes assessment procedures, the task of documenting learning assessment for accreditation purposes can be easier with the implementation of certain assessment products. The products discussed in this section are all designed to meet the standards and principles of various accrediting bodies.

ETS Major Field Tests

This product measures student learning outcomes in order to meet accreditation requirements. The ETS Major Field Tests assist with:

- Measuring program effectiveness.
- Identifying program areas of strengths and weaknesses.
- Tracking improvement efforts over time by considering performance and trends.
- Benchmarking program effectiveness and student performance against similar institutions.

ETS Major Field Tests can be specifically applied to Bachelor's Degree in Business programs and MBA programs. The Bachelor's Degree in Business Major Field Test has the following features:

- 120 multiple-choice questions.
- Designed to measure student knowledge and their skillful application of that knowledge.
- Tests students' ability to apply facts, concepts, theories, and analytical methods.

In comparison, the MBA Major Field Test has the following features:

- 124 multiple-choice questions.
- Case-study scenarios make up half of the questions.
- Questions require specific knowledge from various business topics.

ETS Major Field Tests generate the following reports:

- **Departmental Roster:** total scores and sub-scores for all students.
- **Departmental Summary (Total Scores and Sub-scores)**: frequency distribution of total scores and sub-scores by showing the percent of students scoring below each percentile.
- **Departmental Summary (Assessment Indicators)**: mean of correct test questions answered in specific subdomains/content areas.
- **Departmental Demographic Summary Report:** summary of student demographics.
- **Individual Student Report:** total score and sub-score for each student[2].

Peregrine Academic Services

This service is a customizable, nationally normed, and summative assessment for Business Administration academic programs. Peregrine's assessment service can be integrated into any undergraduate or graduate business program and allows you to:

- Evaluate retained student learning.
- Address most AACSB, ACBSP, and IACBE accreditation requirements related to learning outcomes.
- Use a secure web service to ensure exam integrity.
- Evaluate, assess, and analyze program-level and course-level learning outcomes.
- Benchmark results against other institutions.

Peregrine's assessment service generates the following reports:

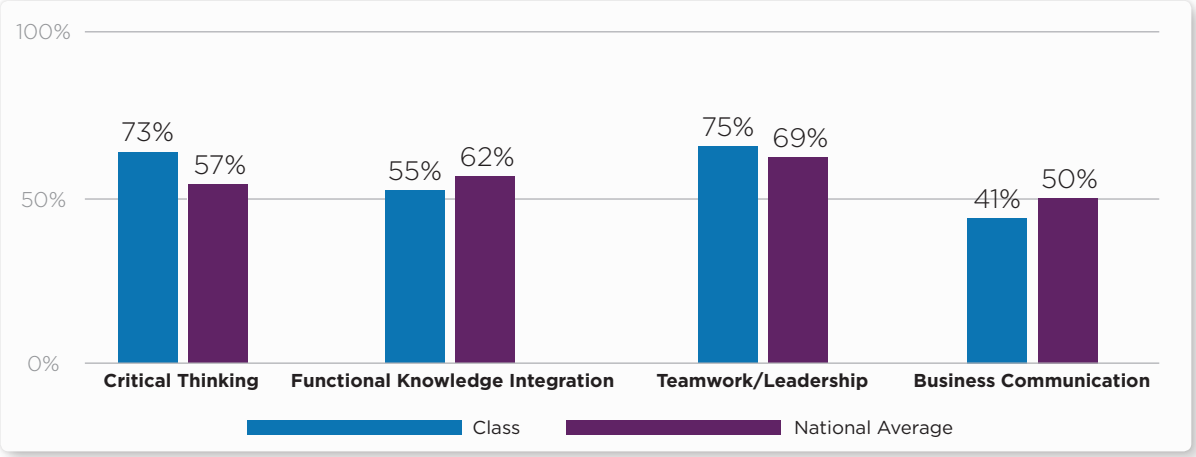
- Individual student results.
- Summative reports.
- Comparative reports[3].

COMP-XM®

Comp-XM

Comp-XM® is a simulation-based competency exam designed to assess students by measuring their ability to apply knowledge obtained throughout their academic careers. More specifically, this assessment tool provides a clear picture of how effectively students can use their business acumen to actively manage a business in an evolving, competitive environment. Comp-XM allows you to:

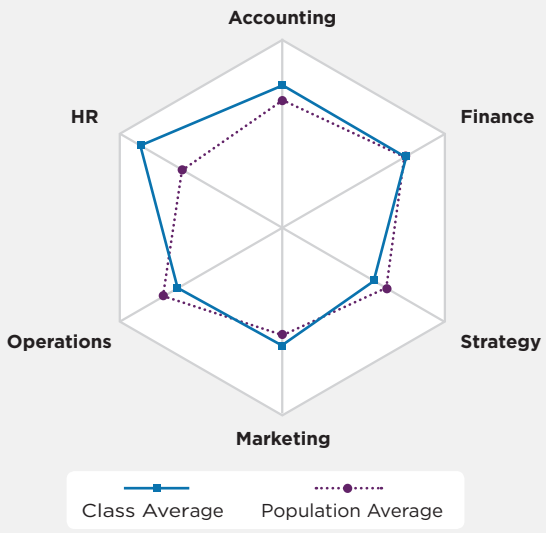
- Provide accrediting bodies such as the AACSB, ACBSP, and IACBE with reliable learning assessment data for accreditation purposes.
- Receive relevant and reliable results backed by the rigorous assessment of all Comp-XM questions conducted by subject matter experts on an ongoing basis.
- Ensure exam integrity with the randomization of the extensive bank of questions for each student. In addition, since the questions are based on specific responses from each student's own simulation, there is no opportunity to share answers.



Comp-XM® generates easy-to-read reports that deliver raw data, visual data displays, and external comparative information in order to assist with your learning outcomes assessment documentation efforts. The reports generated include:

- **Functional Area Report:** course-level summaries drill down to individual student performance.
- **Learning Outcomes Report:** data from the exam are collected for accreditation audits and program assessments.
- **Class Standings Report:** individual questions are analyzed to pinpoint where students excelled or struggled compared to their peer groups.
- **Comparative Scores Report:** information shows how well students understand business concepts relative to their peers.

Functional Domain	Class Average	Population Average
Accounting	53%	61%
Finance	51%	60%
HR	53%	59%
Marketing	58%	59%
Operations	47%	52%
Strategy	53%	60%



Additional features designed to validate your program's learning outcomes assessment process include:

- Additional external benchmarking data resulting from over 35,000 students testing with Comp-XM on a yearly basis.
- Cumulative descriptive statistics and plots for both "knowing" and "doing" learning outcomes.
- An intuitive reporting interface that allows you to build and customize your own reports.

Capsim360

Capsim360® is an innovative multisource-feedback assessment that allows business schools to measure nine key managerial skills needed to ensure successful graduates. This assessment tool provides you with the reliable data needed to demonstrate program value and effectiveness to all stakeholders, including accrediting bodies.

Capsim360's benefits include:

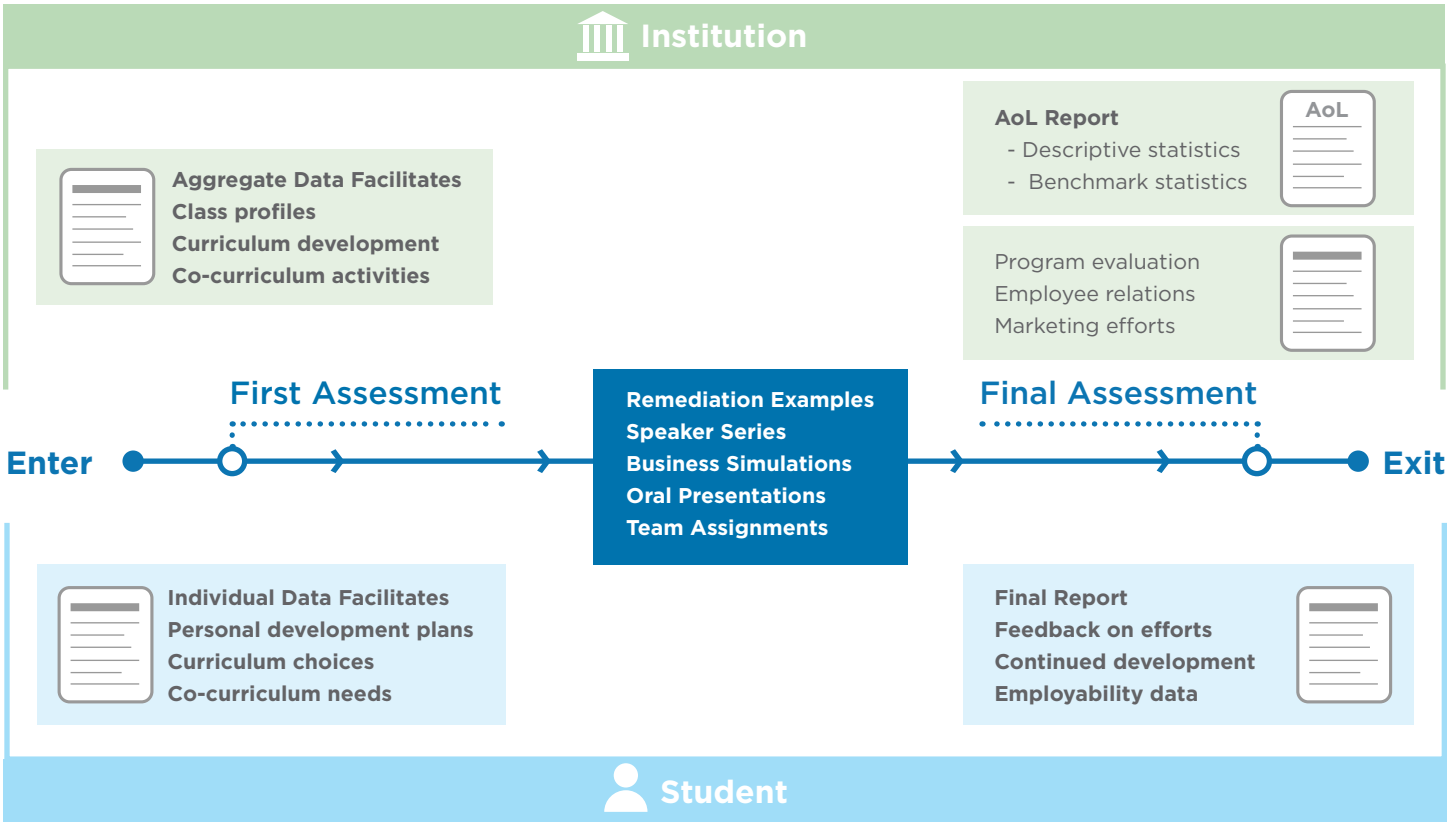
- **Relevancy:** research has identified the nine key managerial skills measured in this assessment tool as the most important for career success.
- **Reliable and Valid Results:** the 48 behavioral and 2 open-ended questions in this assessment tool have been field tested on more than 2,000 individuals and 16,000 responses.
- **Easy Administration:** this tool is user-driven and can be completed in less than 15 minutes.
- **Easy and Scalable Implementation:** longitudinal reporting and the ability to create additional skill domains help align Capsim360 data to your accreditation learning goals.

Capsim360 generates the following reports aimed at fulfilling your institution's accreditation needs:

- **Aggregate Data:** class profiles, curriculum development, and co-curriculum activities.
- **Learning Outcomes Report:** descriptive and benchmark statistics, program evaluation, employee relations, and marketing efforts.

In addition, Capsim360® also generates the following reports aimed at fulfilling your students' need for developing relevant knowledge and skills that will lead to sustained career success:

- **Individual Data:** personal development plans, curriculum choices, and co-curriculum needs.
- **Final Report:** feedback on efforts, continued developmental feedback, and employability data.

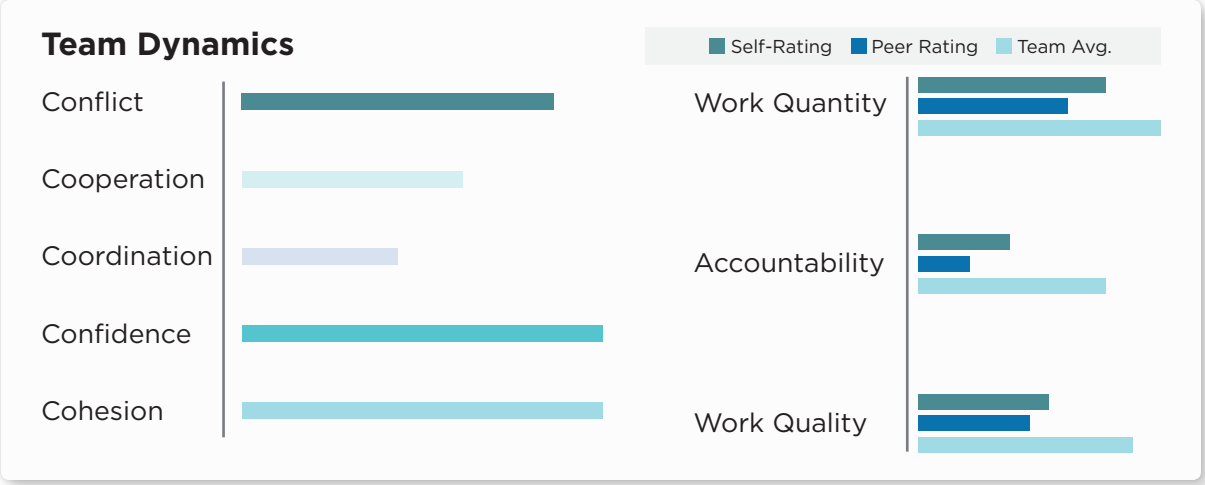


TeamMATE

TeamMATE® is an easy-to-use, online tool that provides an efficient and effective way to collect quality data about individual and team performance. It's likely that at least one your program's learning goals is centered on leadership and teamwork due to their importance in the business world. This tool utilizes team performance science and decades of research to enhance learning for students while simplifying grading for professors.

TeamMATE's benefits include:

- **Easier Grading and Valuable Feedback:** this tool employs online peer evaluations that ask the right questions and deliver aggregate data in easy-to-read interactive charts and tables.
- **Personalized Developmental Tactics:** in order to create individual accountability and curb social loafing, TeamMATE automatically generates personalized self-directed developmental tactics based on evaluation data.
- **Saving Time:** this tool's user experience and its ability to be implemented in any course means professors can save time by stopping the use of antiquated peer evaluation methods.

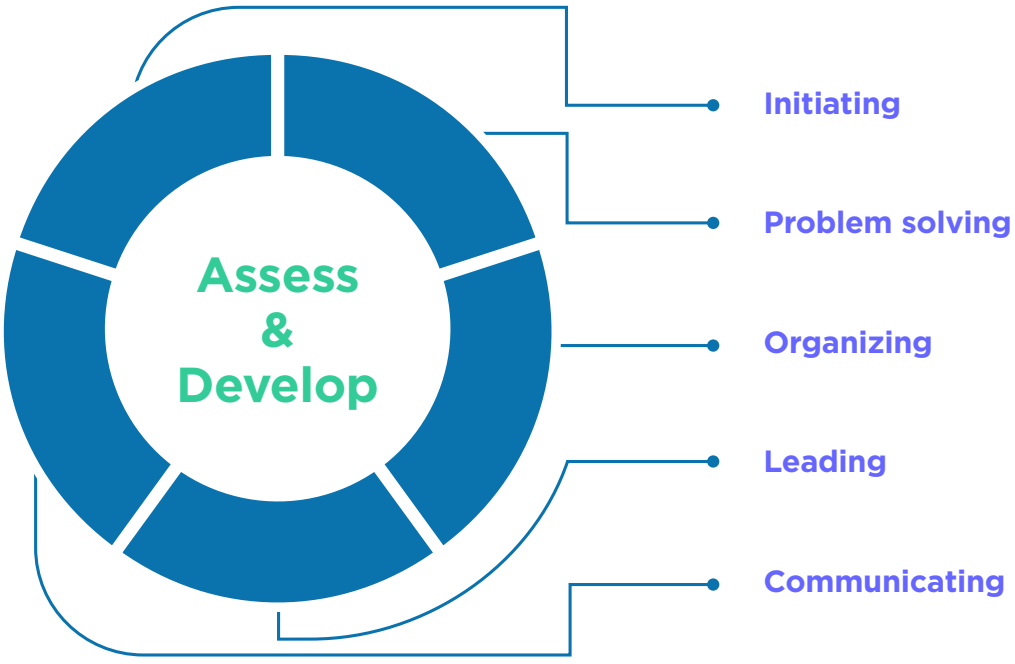


CAPSIM|nbox

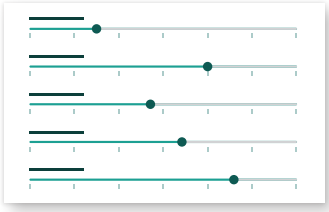
CapsimInbox

CapsimInbox™ is a simulation-based assessment that measures the soft skills employers look for in job candidates while providing critical feedback needed for individual development. This tool is the easiest way to assess and develop soft skills and can effectively align with your program's soft skill learning goals.

CapsimInbox encompasses the methods used in assessment centers by providing participants with a 60 minute simulation-based assessment designed to objectively measure the five key skills that heavily impact employability and promotability. These skills are:



CapsimInbox™ allows your students to make real-world management decisions, assess and develop key soft skills, build accurate self-awareness, and develop a plan for success by incorporating the following features:



- **Self-Assessment:** CapsimInbox guides your students through the completion of a self-assessment before they begin the inbox simulation to provide them with the self-awareness that is essential for professional development.

- **Inbox:** your students experience a day in the life of a manager who comes back from vacation to find their email inbox full of messages from people including direct reports, other managers, and their direct supervisor.

- **Feedback Report:** upon completion of the inbox simulation, your students are presented with a feedback report where they're able to obtain a clear picture of their current skills proficiency, as well as next steps needed for skill development.

- **Individual Development Plan:** participants also have the opportunity to be guided through the creation of an individual development plan. By incorporating the developmental tactics with the creation of S.M.A.R.T. goals, students have actionable next-steps to improve each soft skill.

This assessment tool also has the flexibility to be implemented in a variety of methods like pre-test/post-test, course-embedded, or as part of student orientation. CapsimInbox shows accrediting bodies your program is teaching and assessing relevant skills, providing critical developmental feedback, and using learning assessment outcomes to continually enhance program and educational quality.

References

[1] Rubin, R.S., & Martell, K. (2009). Assessment and accreditation in business schools, The Sage Handbook of Management Learning, Education and Development, 376.

[2] Educational Testing Service. (2018). About the ETS major field tests.

[3] Peregrine Academic Services. (2018). Business administration.

