

ASSURANCE OF LEARNING:

CONTINUOUS QUALITY IMPROVEMENT
IN HIGHER EDUCATION

A Workbook for Understanding how Assessment is used to Evaluate
Higher Education Goals, Objectives, and Learning Outcomes



PEREGRINE
PATHWAYS

Assurance of Learning (AoL) is a term used by many programmatic and institutional accreditation agencies to describe the requirements associated with assessment of learning outcomes. AoL is used in higher education as a quality management process. Different accreditation agencies may use different words that relate to the AoL requirement; however, all of the agencies are essentially describing a similar process. The common theme for AoL is it is an evidence-based approach for the assessment of learning outcomes, goals, and objectives and that the process results in continuous quality improvement for the higher education academic program and institution.

This AoL workbook is version 1.0 and based on the accreditation standards and guidelines from the various accreditation agencies as of October 2019. Accreditation agencies periodically update their standards and guidelines. As you use this workbook in conjunction with your specific AoL requirements, we recommend that you use the current standards and guidelines for any accreditation-related submissions.

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This publication is intended for educational use by our clients in conjunction with our workshops, training sessions, seminars, and conferences. The purpose of the publication is to help improve the quality of higher education throughout the world. This publication is not intended for resale.

APPLICATIONS

The purpose of the Assurance of Learning workbook is to provide higher education leaders the tools and processes associated with Assurance of Learning so they can ensure Assurance of Learning and help satisfy both accreditation requirements and perform continuous quality improvement.

The focus of this workbook is how the higher education institution can best leverage the online assessment and educational courses and programs provided by Peregrine Academic Services to help satisfy the Assurance of Learning requirements as specified by the various accreditation agencies.

Every higher education institution is unique. The basic principles and processes related to Assurance of Learning are, however, largely universal. Officials from higher education institutions should be able to apply the contents of this workbook in most any higher education situation by customizing the processes and assessment-related services to their academic institution.

You will find call-out boxes throughout the workbook that offer suggestions, tips, techniques, and best practices associated with the topic. The purpose of these call-out narratives is to help you apply the topic to your specific Assurance of Learning needs.



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PREFACE

This workbook was created to be *generic* to all accreditations and certifications, both institutional and programmatic (inside and outside the United States).

Each quality assurance agency has its own set of terms and definitions; however, there is overlap with the processes and procedures when it comes to Assurance of Learning.

A common tapestry among most accreditation agencies is that the evidence approach is based on outcomes assessment and using data from quality processes to improve the teaching and learning environment to achieve improved student learning outcomes.



WORKBOOK KEY TOPICS

- Defining Assurance of Learning
- Strategic Context for Quality Assurance
- Understanding Assurance of Learning
- Service Alignment with Assurance of Learning
- Learning Goals & Outcomes
- Measuring Learning Outcomes
- Programmatic vs. Course-Level Assessment
- Embedded Course Assessment
- Mapping Learning Outcomes
- The Inbound/Mid-Point/Outbound Assessment Construct
- Assessment Management
- Using Peregrine's Assessment Reports for Quality Assurance Reporting
- An Example of Learning Outcomes Assessment
- Integration of Educational Programs and Courses
- Closing the Quality Loop with Accreditation Agencies
- Academic Change Management
- Learning Outcomes Mapping & Reporting (LOM&R) Utility
- References & Resources

WORKBOOK OBJECTIVES

After reading and applying the principles in this workbook, you will be able to:

1. Define program learning goals in alignment with your mission, expected outcomes, and strategy.
2. Define measurable program learning objectives in alignment with program learning goals.
3. Identify direct measures to assess student learning.
4. Develop rubrics for each measure to identify evaluation criteria for determining level of mastery and/or performance expectations.
5. Collect and analyze assessment data.
6. Use assessment for continuous program (and institutional) improvement.
7. Evaluate the effectiveness of program modifications/evolutions implemented as a result of assessment (closing the loop).
8. Leverage the capabilities and features of Peregrine's assessment services and its courses and programs for your Assurance of Learning requirements.



SECTION **I**

UNDERSTANDING ASSURANCE OF LEARNING

UNDERSTANDING ASSURANCE OF LEARNING

Section I introduces Assurance of Learning and the role of accreditation in the assessment of student learning.

Chapter 1 answers the why of Assurance of Learning.

Chapter 2 introduces the strategic context for integrating Peregrine online exam and educational services to meet accreditation standards. The assessment criteria and principles relative to Assurance of Learning are outlined from a global, institutional, and programmatic perspective.

Chapter 3 presents Assurance of Learning as a continuous process by which assessment activities are planned, conducted, evaluated, and results are used for improvement.

Chapter 4 enlists the importance of inventorying assessment activities.

Chapter 5 ensures that Assurance of Learning goals and assessment activities are not only defined, but also aligned to the institutional mission and strategic context for seeking or maintaining an accreditation.

Chapter 6 defines an approach to assessment management using a design-based assessment architecture. The chapter explores gaps in assessment practices across the institutional hierarchy and methods for achieving a common approach and long-term sustainment of an assessment system.

CHAPTER 1: AN INTRODUCTION TO ASSURANCE OF LEARNING

Chapter Objective

Understand how Assurance of Learning and continuous improvement are used to achieve higher education goals, objectives, and learning outcomes.

Focus Areas

The quality of higher education is addressed in the global context from the United Nations (UN), the International Network for Quality Assurance Agencies in Higher Education (INQAAHE), The Principles for Responsible Management Education (PRME), European Higher Education Area (ESG), and others.

- Institutional Accreditation (e.g., WASC, SACSCOC, ATHEA, ESG, country-specific quality assurance agencies, etc.) require some form of evidence-based quality assurance.
- Programmatic accreditation tends to have very specific standards, principles, and guidelines related to evidence-based quality assurance.

Defining Assurance of Learning

Assurance of Learning, which is driven largely by governmental and accreditation agencies, refers primarily to using quantitative and qualitative results to demonstrate whether students have achieved learning goals.

The many versions of Assurance of Learning say the same thing: provide evidence that you are doing what you say you are doing with respect to the goals, objectives, and outcomes that you have for the student's educational experience.

Although Assurance of Learning is a focus of accreditation, Assurance of Learning helps ensure that all stakeholders, including students, are receiving a high-quality education. Assurance of Learning (AoL) is focused on student learning outcomes, goals, and objectives. Assurance of Learning also helps ensure competitiveness in tightening education markets.

There is a wide set of terms used to mean *Assurance of Learning* such as *Student Learning Outcomes*, *Measuring Student Learning*, etc. They all express the same intent. *Assurance of Learning* tends to be a more inclusive term that includes the management of learning and operational outcomes.

Why Did Assurance of Learning Come About?

Traditional **measures of knowledge** (e.g., degree title and/or grade point average) do not always demonstrate retained knowledge and skills.

Traditional inputs used to **measure the quality** of educational programs (e.g., the number of faculty with PhDs, the size of library, the student-to-faculty ratio, the size and number of classrooms, etc.) do not necessarily demonstrate the quality of the educational program based on students' retained knowledge and skills.

Why is Assurance of Learning Important?

To ensure that Higher Education Institutions (HEIs) are **measuring retained knowledge** based on their own stated learning goals/objectives/outcomes.

Schools are expected to put into place **rigorous measurement tools** to better understand the degree to which students have retained what they have learned.

In this document, the terms *retained knowledge* and *integrated knowledge* are used interchangeably.

To ensure that **continuous improvement** of educational programs is being undertaken by higher education institutions.

Schools are expected to **make changes** to their educational programs based on 'objective' data on student learning.

To ensure that HEIs are **transparent and accountable** by specifically stating what students should be able to do at the end of an educational program.

Schools are expected to uphold their **engagement to student learning** from the outset in order to be transparent with students, parents, employers, and other stakeholders.

Consider your specific internal and external stakeholder requirements when determining your *how* and *why* of Assurance of Learning.

The Strategic Context for Quality Assurance in Higher Education

Understanding how Peregrine Assessment Services are used to achieve higher education goals, objectives, and learning outcomes begins with understanding the global, institutional, and programmatic contexts for addressing and managing academic programs and Assurance of Learning. The strategic context for quality assurance in higher education is to produce universal principles for framing Assurance of Learning and maintaining quality in teaching and learning, as well as assessment of student learning.

Ministries of Education and Secretaries of Education rely on both global and institutional goals to set education policy and shape quality education plans. The goals for quality assurance in higher education contextualize the principles of Assurance of Learning and how it is managed at the program, institutional, regional, national, and global levels.

The Global Context for Quality Assurance in Higher Education

SDG #4: Ensure inclusive and quality education for all and promote lifelong learning.	
The main concern of the INQAAHE is the promotion of quality education and student achievement.	
The main concern of the AfriQAN is the promotion of quality education and student achievement.	

The Institutional Accreditation Context for Quality Assurance in Higher Education

2.12. The institution has developed an acceptable Quality Enhancement Plan (QEP) that includes an institutional process for identifying key issues emerging from institutional assessment and focuses on learning outcomes and/or the environment supporting student learning and accomplishing the mission of the institution. (Quality Enhancement Plan).	
Principle 3 Method: We will create educational frameworks, materials, processes, and environments that enable effective learning experiences for responsible leadership.	
1.3. Institutions should ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.	

If you are unsure about the legitimacy of a specific accreditation agency, check to see if the agency is listed on the CHEA or EQAR websites.

The Specialized Accreditation Context for Quality Assurance in Higher Education

- AACSB – see Standard #8 (Curricula Management and Assurance of Learning).
- ACBSP – see Standard #4 (Student Learning Assessment).
- ACJS Standard H2: program demonstrates that graduates have acquired the knowledge and skills identified in the student learning outcomes. The test bank is based on Standard B5 for curriculum content and areas of knowledge.
- AMBA – see Accreditation Purpose and Outcomes.
- AUPHA 27-29. The program must demonstrate an annual assessment process of student learning outcomes. The program must demonstrate an annual assessment process of programmatic outcomes. The program must demonstrate how the annual assessment of student learning and programmatic outcomes is used in program revision and improvement.
- CAEP 4.1. The provider documents, using multiple measures, that program completers contribute to an expected level of student-learning growth. Multiple measures shall include all available growth measures (including value-added measures, student-growth percentiles, and student learning and development objectives) required by the state for its teachers and available to educator preparation providers, other state-supported P-12 impact measures, and any other measures employed by the provider.
- CAHME III.D.2. The program will collect, analyze, and use assessments of student competency attainment for continuous improvement.
- EFMD/EPAS – see Programmes.
- IACBE – see Principle #2 (Outcomes Assessment).
- NAEYC – see Standard #5 (Using Content Knowledge to Build Meaningful Curriculum).
- NASPAA 1.3. Program Evaluation: The program will collect, apply, and report information about its performance and its operations to guide the evolution of the program’s mission and the program’s design and continuous improvement with respect to standards two through seven.

Although different accreditation agencies often use different terms related to Assurance of Learning, most recognized institutional and specialized accreditation agencies do have requirements related to learning outcomes assessment.

CHAPTER 2:

INSTITUTIONAL AND PROGRAMMATIC ACCREDITATION: CLOSING THE QUALITY LOOP WITH ACCREDITATION AGENCIES

Chapter Objective

Understanding accreditation agencies' requirements and how Peregrine Academic Services provides the tools for compliance.

Focus Areas

- Each accreditation agency has unique reporting requirements.
- Common themes of reporting include accreditation candidacy, accreditation, periodic quality assurance reports, and reaffirmation of accreditation.
- The use of and results from Peregrine's assessment services and/or educational programs/courses are reported to the agencies as evidence of Assurance of Learning.

Closing the Loop is a shorthand term often used to describe the assessment process whereby assessment results are used to guide changes and the effectiveness of those changes are evaluated through continued assessment.

In this chapter, closing the loop with accreditation agencies will address the role of standards in informing Assurance of Learning practices at various levels of accreditation. The global, institutional, and programmatic contexts for setting the Assurance of Learning objectives are guided by the outlined standards and aligned to respective Peregrine Assessment Services for setting and integrating the academic and operational assessment strategies.

Global Accreditors

European Quality Assurance Agency (EQAA)

EQAA is considered one of the first international quality assurance agencies for higher education offering institutional accreditation. Its Standards and Guidelines for Quality Assurance in the European Higher Education Area were developed in the context of the Bologna Process. EQAA offers universities and other higher education institutions international institutional accreditation and program accreditation, designating the agency as an accreditor of institutions worldwide.

African Quality Assurance and Accreditation Council for Higher Education (AQAACHE)

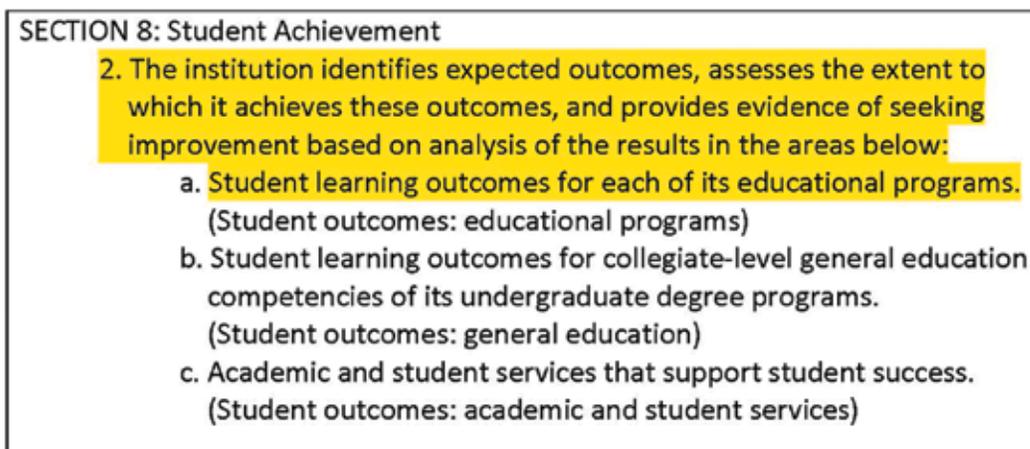
AQAACHE focuses on the quality of private and public higher education institutions. The council is charged with opening new universities and establishing distance learning universities in Africa. In addition, AQAACHE is responsible for accrediting national and other regulatory agencies by creating a quality assurance framework to foster collaboration and promote partnership across accrediting bodies in Africa.

In general, PAS exam services satisfy the universal requirement for assessment of student learning. PAS reports provide not only data but also measurement and analysis of individual and aggregate scores to demonstrate formalized quality assessment practices and evidence of outcomes assessment.

US Regional (Institutional) Accreditors

The United States has seven regional accrediting agencies. They are the Accrediting Commission for Community and Junior Colleges (ACCJC) Western Association of Schools and Colleges, Higher Learning Commission (HLC), Middle States Commission on Higher Education (MSCHE), New England Commission of Higher Education (NECHE), Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), WASC Senior College and University Commission, and Northwest Commission on Colleges and Universities (NWCCU), are also referred to as the US institutional accreditors. The regional accreditors primarily serve degree-granting, non-profit, or state-owned institutions within a specific geographic region of the United States and internationally as specified by their regional authority.

Regional accreditation agencies, including SACSCOC as shown in this Figure 2.1, require Assurance of Learning practices.



SECTION 8: Student Achievement

2. The institution identifies expected outcomes, assesses the extent to which it achieves these outcomes, and provides evidence of seeking improvement based on analysis of the results in the areas below:

- a. Student learning outcomes for each of its educational programs.**
(Student outcomes: educational programs)
- b. Student learning outcomes for collegiate-level general education competencies of its undergraduate degree programs.**
(Student outcomes: general education)
- c. Academic and student services that support student success.**
(Student outcomes: academic and student services)

Figure 2.1. Example of SACSCOC requirements.

How do universities satisfy this requirement?

PAS exams cover an array of discipline-specific outcomes related to knowledge and concepts. The test banks are designed to assess the core business concepts/principles and report on individual student and aggregate performances. The reports provide a succinct and clear process for collecting data related to Assurance of Learning and evidence of assessment over a time series.

Peregrine's General Education (GEN ED) assessment service is aimed specifically at the undergraduate general education requirements within the US and can be used to help satisfy regional accreditation needs associated with learning outcomes assessment.

Programmatic Accreditors

Programmatic accreditation, also known as specialized accreditation, involves the evaluation of programs, departments, or schools within a postsecondary institution. Unit accreditation varies from seeking to accredit an entire college or school within a university and its programs, to an individual program's curriculum within the discipline. Specialized accreditation agencies are international and found in many disciplines including business, criminal justice, early childhood education, healthcare administration, and public administration. The focus of Assurance of Learning is placed at the program level; it also supports the regional, national, and global contexts for accreditation and overall quality education management.

Considerations for Programmatic Accreditors

AACSB

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. [CURRICULA MANAGEMENT AND ASSURANCE OF LEARNING]

The criteria for Standard 8 references Assurance of Learning as a process for demonstrating accountability. How do schools satisfy this requirement? PAS exam services provide substantive reports when implemented with robust data and analysis for demonstrating accountability as indicated by the standard.

Peregrine's Business Administration (BUS) and Accounting/Finance assessment services provide detailed reporting of the study areas broken into its components to help identify the areas of strengths and improvements down to granular levels to provide feedback for individual students and the programs and to assist with closing the loop in academic quality.

- Basis for Judgment**
- Learning goals derive from and are consonant with the school's mission, expected outcomes, and strategies. Curricula management processes are guided by the school's mission, expected outcomes, and strategies. Curricula management processes align curricula for all programs with the school's mission, expected outcomes, and strategies.
 - Learning goals and curricula reflect currency of knowledge. Appropriately qualified faculty members are involved in all aspects of curricula management, including the determination of learning goals and the design and ongoing revision of degree program content, pedagogies, and structure to achieve learning goals. The peer review team expects to see evidence of curricula improvement based on new knowledge.
 - Depending on the teaching/learning models and the division of labor, curricula management facilitates faculty-faculty and faculty-staff interactions and engagement to support development and management of both curricula and the learning process.
 - Learning goals and curricula reflect expectations of stakeholders. Schools incorporate perspectives from stakeholders, including organizations employing graduates, alumni, students, the university community, policy makers, etc., into curricula management processes.
 - Learning goals are achieved. Systematic processes support assurance of learning and produce a portfolio of evidence demonstrating achievement of learning goals. These processes also produce a portfolio of documented improvements based on collected evidence. The school provides a portfolio of evidence for each business degree program to demonstrate that students meet the learning goals. Or, if assessment demonstrates that students are not meeting the learning goals, the school has instituted efforts to eliminate the discrepancy.
 - Evidence of recent curricula development, review, or revision demonstrates the effectiveness of curricula/program management.

Figure 2.2. The criteria for AACSB Standard 8 references Assurance of Learning.

The Basis for Judgment for accreditation requires learning goals attainment (initial and reaffirmation). AACSB clearly defines the importance of learning goals. Bullet 5 from the Basis of Judgment under Standard 8 points out there should be “systematic processes and a portfolio of evidence demonstrating achievement of learning goals.”

Assurance of learning refers to processes for demonstrating that students achieve learning expectations for the programs in which they participate. Schools use assurance of learning to demonstrate accountability and assure external constituents such as potential students, trustees, public officials, supporters, and accrediting organizations that the school meets its goals. Assurance of learning also assists the school and faculty members to improve programs and courses. By measuring learning, the school can evaluate its students' success at achieving learning goals, use the measures to plan improvement efforts, and (depending on the type of measures) provide feedback and guidance for individual students. For assurance of learning purposes, AACSB accreditation is concerned with broad, program-level focused learning goals for each degree program, rather than detailed learning goals by course or topic, which must be the responsibility of individual faculty members.

Figure 2.3. AACSB clearly defines the importance of learning goals.

How do schools satisfy this requirement?

PAS exam services in business administration and/or accounting and finance satisfy the requirement for “collected evidence.” PAS reports provide not only data but conclusive measurement and analysis of individual and aggregate scores according to business principles and subtopics to demonstrate Assurance of Learning.

Peregrine’s assessment services satisfy AACSB’s requirements for Assurance of Learning by providing evidence of outcomes assessment and formalized quality assessment practices.

In meeting the requirements for documentation, bullet 5 of PAS’s Business Administration assessment service supports direct assessment of learning Workplace Skills Assessment and other educational services support the collection of multiple measures to include not only quality assessments of processes but also indirect measures, formative and summative assessment, as well as external and internal benchmarking for deeper analysis or evaluation of comparative data results.

- Show how curricula management processes have produced new or revised curricula for degree programs, describing the source of information that supports the new or revised program development.
- Discuss and provide evidence of faculty-faculty and faculty-staff interaction in curricula management processes.
- List the learning goals for each business degree program—this list should include both conceptual and operational definitions.
- Provide a portfolio of evidence, including direct assessment of student learning, that shows that students meet all of the learning goals for each business degree program. Or, if assessment demonstrates that students are not meeting learning goals, describe efforts that the unit has instituted to eliminate the discrepancy. Indirect assessments may be used as part of the portfolio of evidence to provide contextual information for direct assessment or information for continuous improvement.
- If the business school is subject to formalized regulations or quality assessment processes focused on the evaluation of student performance, and these processes are consistent with AACSB expectations and best practices, they may be applied to demonstrate assurance of learning. The burden of proof is on the school to document that these systems support effective continuous improvement in student performance and outcomes.

Figure 2.4. AACSB, bullet 5, states requirements for documentation.

ACBSP

ACBSP Standard #4 addresses several key elements of Assurance of Learning, including outcomes mapping and assessment.

Criterion 4.3.b --Comparative Measures

Provide evidence of the Business Unit's use of comparative measures (internal and/or external) to improve overall student performance. For example, internal comparative measures may include a comparative data of student performance results by alternative methods of instructional delivery, location, etc. and external comparative measures may include performance on external assessments.

Criterion 4.3.b.1. - Use of Comparative Measures Results Report the actual results and use of the results of comparative measures by completing the Figure 4.1 in the evidence file. Include all programs seeking accreditation or re-affirmation.

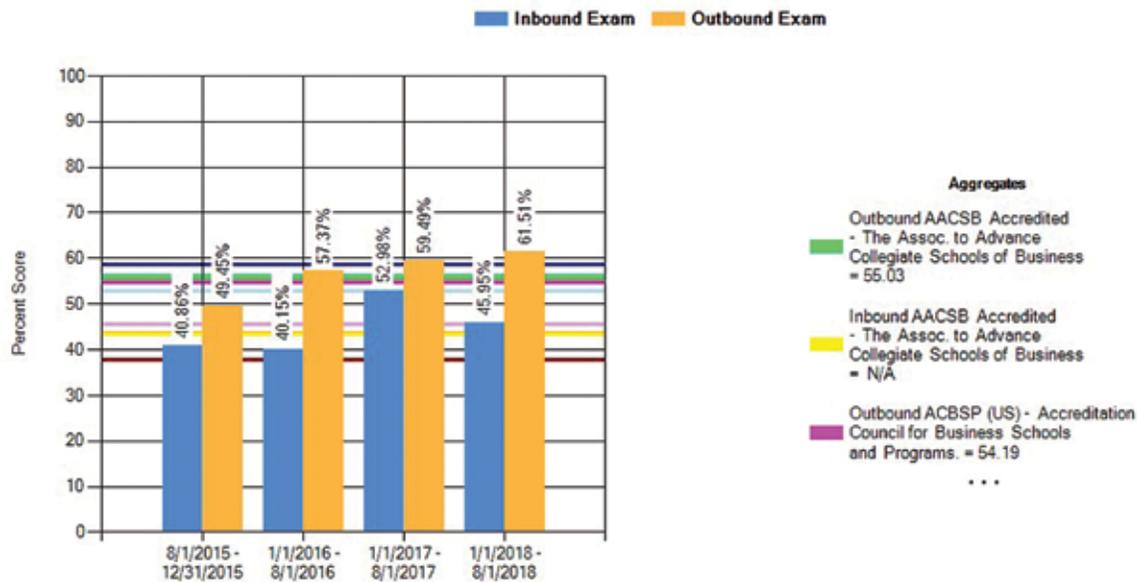
Figure 2.5. ACBSP Standard #4 addresses several key elements of Assurance of Learning.

Peregrine's assessment services provide external benchmarking against several aggregate pools based on national averages, regional averages, accrediting body affiliations (regional or specialized) along with institutional demographics (public, private, non-profit, for-profit, etc.) and program delivery modality type, to name a few.

Criterion 4.2.b – Assessment Measurement Cycles

Provide evidence that all program outcomes established for each program are assessed and measured over 3-5 data measurement cycles. (Evidence might include a copy of your assessment schedule or deployment cycle.)

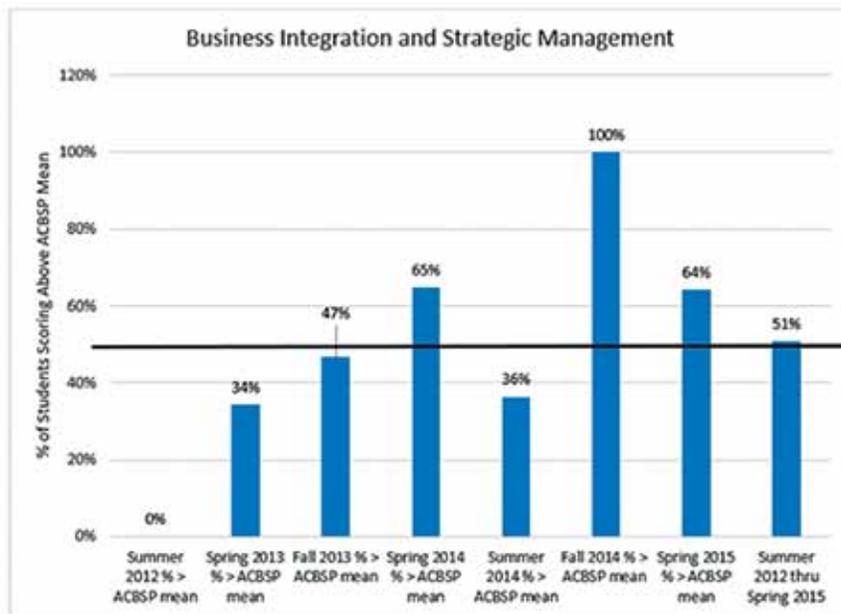
Figure 2.6. ACBSP Criterion 4.2.b requires at least 3 data points for accreditation (initial and reaffirmation).



Longitudinal Comparison: Total

Date Range	Counts	Diff	% Change
8/1/2015 - 12/31/2015	27 47	8.59	21.02%
1/1/2016 - 8/1/2016	34 97	17.22	42.89%
1/1/2017 - 8/1/2017	21 145	6.51	12.29%
1/1/2018 - 8/1/2018	70 167	15.56	33.86%

Figure 2.7. Peregrine’s assessment services will help satisfy ACBSP’s requirements for both comparative information and data over time relative to benchmarks and intended outcomes.



In the seven assesment periods, 51% of the students performed better than ACBSP mean, thereby demonstrating their knowledge competency in Strategic Management. Faculty noted the superb performance of 100% students scoring higher than the ACBSP mean in Fall 2014. More than 50% students scored above the ACBSP mean in three out of seven terms.

Figure 2.8. In this example, the business school uses the business administration exam to understand trends over time compared to a specific benchmark.

IACBE

IACBE Principle 2: Quality Assessment and Advancement addresses several key elements of Assurance of Learning, including outcomes mapping and assessment.

IACBE Principle 2 states that an outcomes assessment plan must be designed and based on the ‘best possible data’ with assessment results that accurately characterize the institution’s business programs.

Principle 2: Quality Assessment and Advancement

2.1: Assessment Planning

Excellence in business education requires the development of a comprehensive plan for assessing the extent of student learning in the institution’s business programs and the operational effectiveness of the academic business unit. Furthermore, the plan must be driven by the mission of the academic business unit, must be linked to the strategic planning processes of the institution and the academic business unit, and must involve business faculty in all aspects of its development.

Evaluation Criteria

To demonstrate high levels of overall performance and academic quality in its business programs, the academic business unit must develop a comprehensive business outcomes assessment plan.

A major purpose of outcomes assessment is to provide a basis for continuous improvement in curriculum, pedagogy, institutional resources, academic support services, staffing, and other aspects of institutional operations that impact student learning and the overall effectiveness of the academic business unit. It is therefore important that any needed changes and improvements identified through the assessment process be based on the best possible data, and that assessment results accurately and reliably characterize the institution’s business programs.

Assessment Plans for Candidacy Status need clear direct and indirect learning outcomes results. Adopting Peregrine’s comprehensive programmatic assessment tool at the start of the accreditation process enables efficient collection, reporting, and analysis of learning outcomes’ results as well as the ability to provide longitudinal data for the same measures (continuity) once candidacy has been approved.

Figure 2.9. IACBE Principle 2.

How do schools satisfy this requirement?

The PAS exam reports assist institutional decision-makers, such as administrators and faculty, with planning and budgeting for academic programs. The assessment data essentially “provides a basis”, as referenced in the standard, for implementing a process of continuous improvement relative to curricular, institutional, and strategic management goals based on the results using reliable and valid data produced from the PAS exam reports. In furtherance, student learning outcomes assessment and linkages with strategic planning can be achieved by tracking and managing the assessment results to inform corrective action and modifications as needed within the continuum of the feedback loop for continuous improvement.

The Assessment Plan is submitted to obtain Candidacy Status.

IACBE does not prescribe any particular approach to outcomes assessment but does require an assessment plan for submission of candidacy. Under Principle 2: Quality Assessment and Advancement, an institution “must develop a comprehensive business outcomes assessment plan...”

These intended learning outcomes should be appropriate to the program’s area of study and should take the following forms:

- Business-Related Content Outcomes
- Business-Related Professional Skills

How do schools satisfy this requirement?

PAS exams cover the business-related content outcomes related to discipline-specific knowledge and concepts. The test banks are designed to assess core business concepts/principles and report on individual student and aggregate performances. The reports provide a succinct and clear process for collecting data related to Assurance of Learning and evidence of assessment over a time series.

Apart from having an outcomes assessment plan, IACBE emphasizes the linkage between outcomes assessment and strategic planning. According to Principle 2, “a major purpose of outcomes assessment is to provide a basis for continuous improvement.”

1. For each business program included in the accreditation review, provide Table 2-1: Student Learning Assessment Results for each program included in the outcomes assessment plan. These results must include the following information:
 - a. Results from the implementation of the direct measures of student learning as identified in the academic business unit's outcomes assessment plan
 - b. Results from the implementation of the indirect measures of student learning as identified in the academic business unit's outcomes assessment plan
 - c. An indication of whether students achieved each of the intended learning outcomes as determined by the performance objectives (targets/criteria for the assessment measures) identified by the academic business unit in its outcomes assessment plan
- This information must be presented using the table template provided in these guidelines.

Figure 2.10. Peregrine's assessment services help satisfy IACBE's requirements for student learning outcomes with coverage of the business discipline-specific knowledge.

How do schools satisfy this requirement?

PAS exams offer a sustainable approach to Assurance of Learning in the discipline by offering not only a measurement tool, but also useful reporting to demonstrate evidence of data collection and analysis. Copies of PAS exam summaries and reports, as well as service reliability and validity, can be used to further demonstrate the consistency of assessment results and adoption of sustainable assessment methods.

STUDENT LEARNING ASSESSMENT MEASURES

Best practice requires the assessment of student learning to incorporate multiple methods of assessing student performance. Therefore, in developing the framework for program-level student learning assessment in its outcomes assessment plan, the academic business unit must identify at least two different measures of student learning that will be used to assess the intended learning outcomes for each program to be included in the accreditation review. While the academic business unit may use indirect measures of student learning, at least one assessment measure in each program must be a direct measure.

Definitions of Learning Assessment Measures

The differences between direct and indirect learning assessment measures are as follows:

Direct Measures of Student Learning: Tools that measure student performance on some task or assignment, i.e., tools on which students demonstrate the extent of their actual learning and/or the acquisition of some skill or competency

Indirect Measures of Student Learning: Tools that measure opinions or perceptions about learning, but do not actually assess student work or performance or require students to demonstrate their knowledge or skills (these are usually self-report measures)

Figure 2.11. Measuring direct and indirect student learning is achieved with PAS business assessments and student surveys.

An IACBE Outcomes Assessment Example

In this example (Figure 2.12), the business school uses the Accounting/Finance exam as a direct measure of Institutional Student Learning Outcomes (ISLOs) with specific targets (assessment criteria).

Student Learning Assessment for Bachelor of Arts in Business Economics - Online	
Intended Student Learning Outcomes for Bachelor of Arts in Business Economics - Online	
<p>1. Assess business facts and interpret them consistent with economic thinking.</p> <p>Broad-Based Student Learning Goals Associated with this Outcome: 1, 2</p> <p>Key Learning Outcomes for Bachelor's-Level Business Programs to which this Outcome is Linked: 1, 7</p>	
<p>2. Understanding of how decision makers allocate scarce resources to achieve economic efficiency.</p> <p>Broad-Based Student Learning Goals Associated with this Outcome: 1, 2, 3, 4</p> <p>Key Learning Outcomes for Bachelor's-Level Business Programs to which this Outcome is Linked: 5, 7</p>	
<p>3. Apply economic tools to analyze decisions made by consumers, firms, and policy makers.</p> <p>Broad-Based Student Learning Goals Associated with this Outcome: 3, 4</p> <p>Key Learning Outcomes for Bachelor's-Level Business Programs to which this Outcome is Linked: 1, 5, 7</p>	
<p>4. Integrate economic models to analyze the impact of various fiscal monetary, and trade policies on a nation's economy.</p> <p>Broad-Based Student Learning Goals Associated with this Outcome: 2, 7</p> <p>Key Learning Outcomes for Bachelor's-Level Business Programs to which this Outcome is Linked: 1, 2, 7</p>	
Assessment Instruments for Intended Student Learning Outcomes— Direct Measures of Student Learning:	Performance Objectives (Targets/Criteria) for Direct Measures:
<p>1. Common Professional Component – Business Finance section, Business Integration and Strategic Management section, Economics section, and Management section</p> <p>Program ISLOs Assessed by this Measure: 1, 2, 3, 4</p>	<p>90% of all business economics students taking the CPC exam will score at least 400 or higher on each of the following sections: Business Finance section, Business Integration and Strategic Management section, Economics section, and Management section, and will, on average, score above average in the Peregrine Academic Services (PAS) Online Campus and Traditional Campus Aggregate Pools related to each section listed above of the CPC comprehensive exam when compared to other competitive programs.</p>
<p>2. BUS 402 Capstone Final Paper</p>	<p>On the capstone final paper evaluation rubric (containing separate evaluation criteria for each of the core ISLOs assessed by this measure), the performance</p>

Figure 2.12. Example of PAS assessments as a direct measure of student learning.

AMBA

Principle 6 addresses several key elements of Assurance of Learning, including outcomes mapping and assessment.

Principle 6: Competences, Graduate Attributes & Learning Outcomes

The MBA should have clearly articulated learning outcomes which can be measured and mapped through to course learning outcomes and assessment. Outcomes should broadly reflect AMBA MBA attributes and be aligned to the mission of the Institution.

6.1 Each individual MBA programme must have clearly stated aims, objectives and learning outcomes, which reflect the mission and strengths of the Institution. Learning outcomes should be clear and explicit in describing what participants are expected to know and be able to do as a result of the programme.

They should make clear the ways in which the Institution recognises and assesses intellectual, analytical, personal and enterprise qualities as well as the specific knowledge developed by the programme. *How do schools satisfy this requirement? Some schools develop internal measurement of learning. PAS offers external assessment tools that evaluate intellectual, analytical, and specific knowledge developed by the program.*

6.2 Learning outcomes should be mapped and measured against curriculum design and assessment, to ensure that the programme is cohesive and that all intended graduate outputs are achieved. *How do schools satisfy this requirement? Some schools establish performance targets, benchmarks, etc. to determine if they are meeting the intended graduate outputs. PAS offers detailed reports enabling schools to analyse the degree to which they are meeting the established performance targets/benchmarks. This can be done for specific internal cohorts of students and/or compared to selected aggregate pools.*

Figure 2.13. AMBA Principle 6.

Both the BUS assessment and the ALC program can be mapped to specific Principle 7 requirements (Curriculum Breadth and Depth).

PAS Assessment Service and ALC Program AMBA 7.3	(i) the concepts, processes and institutions in the production and marketing of goods and / or services and the financing of business enterprise or other forms of organisation	(ii) the concepts and applications of accounting, quantitative methods and analytics, and management information systems including digital innovations	(iii) organisation theory, behaviour, HRM issues and interpersonal communications	(iv) the processes and problems of general management at the operational and strategic level	(v) macro and micro economics	(vi) business research methods and consultancy skills	(vii) the impact of environmental forces on organisations, including legal systems; demographic; ethical, social, and technological change issues and risks	(viii) explicit coverage of the ability to respond to and manage change	(ix) business policy and strategy	(x) leadership and entrepreneurship	(xi) an understanding of the impact of sustainability, ethics and risk management on business decisions and on society as a whole	(xii) further contemporary and pervasive issues, such as creativity, enterprise, innovation, e-commerce, and knowledge management	(xiii) the international dimension to the above, including political risk and contemporary processes of regionalisation, emerging markets, global governance and globalisation
Accounting													
Business Ethics													
Business Finance													
Business Integration and Strategic Management													
Business Leadership													
Economics - Macro/Micro													
Global Dimensions of Business													
Information Management Systems													
Legal Environment of Business													
Management													
Human Resource Management													
Operations/Production Management													
Organizational Behavior													
Marketing													
Quantitative Techniques/Statistics													

Figure 2.14. Mapping to AMBA Principle 7.

Peregrine's assessment services satisfy AMBA's requirements for both rigor and relevance.

Principle 8: Assessment Rigour & Relevance

The MBA assessment strategy must be robust, varied and to standards that are consistently applied at the Masters level. *Peregrine's Assessments are derived from test banks which are constantly tested for validity and reliability.*

8.1 The key purpose of student assessment is to enable students to demonstrate that they have met the objectives and achieved the learning outcomes of the programme at the standard required for the award of an MBA degree. The assessment scheme should have detailed criteria and specify the range and relative weights of the various assessment methods used; it should be comprehensive and consistent across the various subject areas and underpinned by a suitable assessment strategy. *Peregrine's assessment reports enable detailed analysis of whether learning outcome performance targets are being met or not.*

8.2 The assessment scheme should reflect the particular aims and characteristics of the course. A diverse approach to assessment methods is expected, and individuals' examinations should play a balanced role in any such schemes since they are seen as testing intellectual rigour under controlled conditions. While innovation in assessment methods is encouraged, particularly where new teaching and learning methods are being used, detailed evaluation by the school of such innovations will also be looked for. *Peregrine's assessments are flexible, customizable, and are offered in multiple languages.*

8.3 Assessment should also be used to provide feedback to students in a consistent and timely manner and to assist in subsequent individual and group learning. *Peregrine's assessments are integrated into the schools' LMS system of seamless feedback to students as soon as they complete assessments.*

8.4 Evidence is required that steps are taken to ensure the individual's own work is being assessed with an explicit policy with regards to plagiarism. *Peregrine's exams can be administered by proctor or non-proctored. The exam includes features designed to preserve the integrity of the examination process.*

8.5 Assessment standards should be consistently reviewed and applied at the Master's level across the programme and the portfolio. This includes instances where delivery and assessment are undertaken at partner sites and on student exchanges. *Peregrine's assessments can be taken on-site/off-site and can be invigilated or non-invigilated assessments.*

Figure 2.15. AMBA Principle 8.

EFMD EQUIS

EQUIS accreditation Chapter 2 addresses the specific standards for academic programmes, which includes programme evaluation and student assessment.

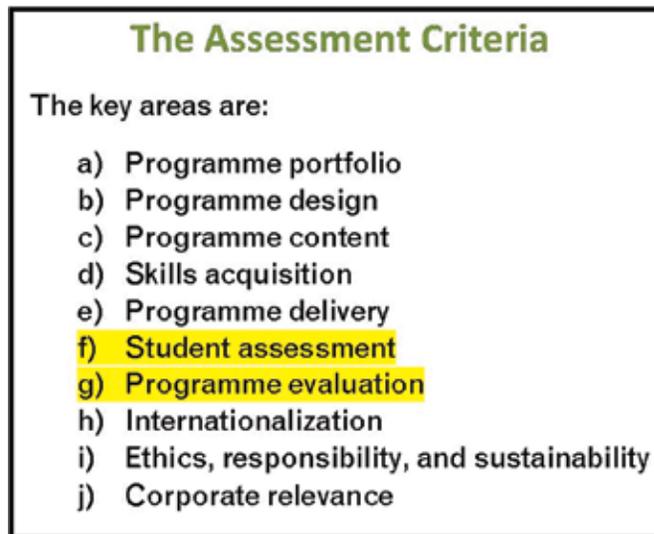


Figure 2.16. EQUIS/EFMD assessment criteria focus on direct and indirect assessment.

How do schools satisfy this requirement?

PAS exam services and educational offerings support the EFMD EQUIS school's program design in terms of its intended learning outcomes and objectives. Peregrine's reports provide information for programmatic evaluation and are used in improving outcomes with respect to program evaluation, design, content and delivery.

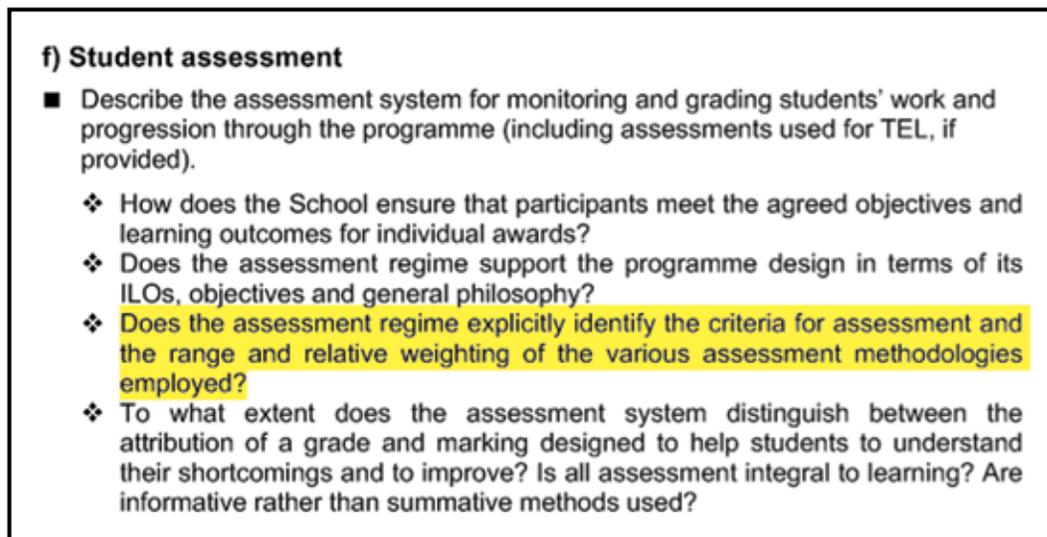


Figure 2.17. Peregrine's assessment services help satisfy EQUIS requirements for student assessment, rigor, and Assurance of Learning.

Peregrine's educational services, including EvaluSkills: Workplace Skills Assessment, help satisfy EQUIS/EFMD's requirements for career placement and responsive citizenship.

- e) Career placement and support**
- Provide statistics on the employment of graduates, such as
 - ❖ distribution of employment by market sector and function
 - ❖ distribution of salaries offered to graduates
 - ❖ geographical distribution
 - ❖ percentage of employment on graduation and 6 months after graduation
 - ❖ list of major employers over the past 5 years
 - ❖ How do these employment trends meet the stated programme objectives?
 - Describe the arrangements for career development support for students and the alumni.
 - ❖ What services are provided to help students identify job opportunities and prepare themselves for interviews?
 - ❖ Can students obtain counselling in defining their career objectives?
- h) Ethics, Responsibility and Sustainability**
- Describe how ethics, responsibility and sustainability are integrated into student recruitment, admissions and management (e.g. scholarships, awards, diversity).
 - Describe how challenges relating to ethics, responsibility and sustainability are integrated into the personal development of students.
 - Describe the curricular and extracurricular engagement of students in the areas of ethics, responsibility and sustainability.
 - ❖ Describe student organisations and initiatives focused on these areas.
 - ❖ How do School and faculty support these activities?

Figure 2.18. Under Chapters 2 and 3, EFMD addresses career placement and support as well as ethics, responsibility, and sustainability as a part of the standard's criteria.

How do schools satisfy this requirement?

EvaluSkills: Workplace Skills Assessment provides a self-directed or co-curricular pathway for career development. Additionally, PAS exam services address ethics as a part of the subtopics in the business administration exam. Lastly, the OLC educational service supports ethics and social responsibility education as a part of the leadership development and training course modules.

Peregrine offers several specific assessment services for business and business-related academic degree programs including EvaluSkills for soft skills assessment along with knowledge-based and critical thinking assessment services for the disciplines of Business and Accounting/Finance.

ACJS

Section H: Program Quality and Effectiveness	
Standards:	
H.1	The program undergoes systematic evaluation of all program components and uses the results for program improvement.
H.2	The program demonstrates that its graduates have acquired the knowledge and developed the skills that are identified as the program's objectives and student learning outcomes.

Figure 2.19. ACJS (criminal justice programs) Certification Standard H includes requirements for programmatic evaluation and assessment of learning outcomes.

How do schools satisfy this requirement?

Schools use Peregrine's programmatic assessment service for criminal justice (CJ) program evaluation. The service, available for both graduate and undergraduate academic degree programs, is organized by 10 CJ topics and is typically customized to align with the program's learning outcomes. The CJ assessment service provides a systematic approach for learning outcomes evaluation.

Selected Indicators:	
I-H.a.	Written program assessment plan [H.1]
I-H.b.	Indication of where program objectives are taught in curriculum, how learning outcomes are measured prior to graduation, and the results of such assessment [H.2]
I-H.c.	Evidence demonstrating that the program is achieving its mission, goals, objectives and outcomes [H.2]
I-H.d.	Results of program evaluation including graduate satisfaction with program, employer satisfaction with graduates; retention and graduation rates; placement rates [H.2]

Figure 2.20. Peregrine's CJ Assessment service helps satisfy the ACJS certification requirements.

How do schools satisfy this requirement?

Schools typically employ an Inbound/Outbound Exam construct (programmatic pre-test/post-test). Students at the start of the CJ program complete the Inbound Exam. Students subsequently take the Outbound Exam just before graduation. Results are used, both individually and in aggregate, to directly measure changes brought about from the academic experience. Analysis of the Outbound Exam results when compared to the external aggregates provides the ability to benchmark results and qualitatively determine if the program is meeting its intended outcomes.

AUPHA

	Program Evaluation and Improvement Criteria	Review elements
26.	The program must demonstrate an annual assessment process of student learning outcomes.	<ul style="list-style-type: none"> • Describe the assessment process for student learning outcomes, including the varied assessment methods used. • Provide assessment results from the self-study year. Examples of student learning outcomes assessments include but are not limited to: <ul style="list-style-type: none"> • Student self-assessments • Instructor assessments • Preceptor assessments • Standardized cumulative (exit) examinations • Course grades • Student pre-post exams
27.	The program must demonstrate an annual assessment process of programmatic outcomes.	<ul style="list-style-type: none"> • Describe the annual assessment process of programmatic outcomes, including the varied assessment methods used. • Provide the results from assessment data. • Programmatic outcomes measures should be defined in program goals/objectives. Examples of program level assessment methods include but are not limited to: <ul style="list-style-type: none"> • Exit interviews • Student program survey • Alumni surveys • Student evaluations of teaching • Advisory board assessments/reviews • College University assessment/reviews
28.	The program must demonstrate how the annual assessment of student learning and programmatic outcomes is used in program revision and improvement.	<ul style="list-style-type: none"> • Describe the process for reviewing and responding to results of student learning outcome and programmatic outcome assessments. • Describe programmatic changes made since the last certification and the impetus for these changes. (For initial certification list changes in the past three years.)

Figure 2.21. The AUPHA (undergraduate healthcare administration programs) certification requirements include considerations for Assurance of Learning through program evaluation.

How do schools satisfy this requirement?

Schools use Peregrine’s programmatic assessment service for healthcare administration program evaluation. The service is organized by 23 healthcare topics based on the Healthcare Leadership Alliance and the AUPHA programmatic evaluation requirements. The HCA assessment service provides a systematic approach for learning outcomes evaluation.

Schools typically employ an Inbound/Outbound Exam construct (programmatic pre-test/post-test). Students at the start of the HCA program complete the Inbound Exam. Students subsequently take the Outbound Exam just before graduation. Results are used, both individually and in aggregate, to directly measure changes brought about from the academic experience. Analysis of the Outbound Exam results when compared to the external aggregates provides the ability to benchmark results and qualitatively determine if the program is meeting its intended learning outcomes.

CAHME

III.C Student Assessment (Assessment of Student Learning and Competency Assessment)

III.C.1: The Program will incorporate a range of assessment methods driven by adult learning principles. The methods will be based on higher education taxonomic levels appropriate to graduate education and aligned with defined competencies.

III.C.2: The Program will regularly evaluate the extent to which each student attains the competencies at the level targeted by the Program, and will have a process in place for communicating that information to students.

Figure 2.22. The CAHME (graduate healthcare administration programs) accreditation requirements include considerations for Assurance of Learning through program evaluation.

How do schools satisfy this requirement?

Schools use Peregrine's programmatic assessment service for healthcare administration program evaluation. The service is organized by 23 healthcare topics based on the Healthcare Leadership Alliance and the CAHME programmatic accreditation requirements. The HCA assessment service provides a systematic approach for learning outcomes evaluation.

Schools typically employ an Inbound/Outbound Exam construct (programmatic pre-test/post-test). Students at the start of the HCA program complete the Inbound Exam. Students subsequently take the Outbound exam just before graduation. Results are used, both individually and in aggregate, to directly measure changes brought about from the academic experience. Analysis of the Outbound Exam results when compared to the external aggregates provides the ability to benchmark results and qualitatively determine if the program is meeting its intended outcomes.

NASPAA

NASPAA (public administration programs) accreditation standards require programmatic evaluation.

Standard 1 Managing the Program Strategically

- 1.1 Mission Statement: The program will have a statement of mission that guides performance expectations and their evaluation, including**
- its purpose and public service values, given the program's particular emphasis on public affairs, administration, and policy
 - the population of students, employers, and professionals the program intends to serve, and
 - the contributions it intends to produce to advance the knowledge, research, and practice of public affairs, administration, and policy.
- 1.2 Performance Expectations: The program will establish observable program goals, objectives, and outcomes, including expectations for student learning, consistent with its mission.**
- 1.3 Program Evaluation: The program will collect, apply, and report information about its performance and its operations to guide the evolution of the program's mission and the program's design and continuous improvement with respect to standards two through seven.**

Figure 2.23. Under Standard 1, NASPAA addresses performance expectations and program evaluation under 1.2 and 1.3, respectively.

How do schools satisfy this requirement?

PAS exams provide an array of reporting options to illustrate outcomes attainment and assist with the periodic evaluation of academic programs. Peregrine's *EvaluSkills: Workplace Skills Assessment* helps satisfy requirements associated with Standard 4.3.

Standard 4 Matching Operations with the Mission: Serving Students	
4.1	Student Recruitment: The program will have student recruitment practices appropriate for its mission.
4.2	Student Admissions: The program will have and apply well-defined admission criteria appropriate for its mission.
4.3	Support for Students: The program will ensure the availability of support services, such as curriculum advising, internship placement and supervision, career counseling, and job placement assistance to enable students to progress in careers in public affairs, administration, and policy.
4.4	Student Diversity: The program will promote diversity and a climate of inclusiveness through its recruitment, admissions practices, and student support services.

Figure 2.24. NASPAA Standard 4, Support for Students, requires that a program ensure the availability of support services such as career counseling.

How do schools satisfy this requirement?

EvaluSkills: Workplace Skills Assessment is an educational service that supports career counseling and addresses readiness skills in internship and job placement assistance as identified in 4.3. The domains listed within NASPAA Standard 5.1 are included in the PUB Assessment Service.

Standard 5 Matching Operations with the Mission: Student Learning	
5.1	Universal Required Competencies: As the basis for its curriculum, the program will adopt a set of required competencies related to its mission and public service values. The required competencies will include five domains: the ability <ul style="list-style-type: none">• to lead and manage in public governance;• to participate in and contribute to the policy process;• to analyze, synthesize, think critically, solve problems and make decisions;• to articulate and apply a public service perspective;• to communicate and interact productively with a diverse and changing workforce and citizenry.

Figure 2.25. NASPAA Standard 5, Student Learning, requires a program to “adopt a set of required competencies.”

How do schools satisfy this requirement?

The Public Administration exam addresses the domains within the discipline; including specific competencies for Assurance of Learning.

CAEP

Peregrine's assessment services satisfy CAEP's Standard 4 requirements for annual reporting, including relevance and rigor of an academic program.

Standard 4. Program Impact

The provider demonstrates the impact of its completers on P-12 student learning and development, classroom instruction, and schools, and the satisfaction of its completers with the relevance and effectiveness of their preparation.

Impact on P-12 Student Learning and Development:

4.1 The provider documents, using multiple measures that program completers contribute to an expected level of student-learning growth. Multiple measures shall include all available growth measures (including value-added measures, student-growth percentiles, and student learning and development objectives) required by the state for its teachers and available to educator preparation providers, other state-supported P-12 impact measures, and any other measures employed by the provider.

Indicators of Teaching Effectiveness:

4.2 The provider demonstrates, through structured validated observation instruments and/or student surveys, that completers effectively apply the professional knowledge, skills, and dispositions that the preparation experiences were designed to achieve.

Figure 2.26. CAEP's Standard 4 addresses student growth and the use of multiple measures.

How do schools satisfy this requirement?

Schools use Peregrine's Early Childhood Education assessment service for programmatic evaluation and student learning growth.

PAS exams meet the criteria outlined in 4.1 by providing an additional measure for direct assessment of student learning.

The service is organized by 10 early childhood education topics. The assessment service provides a systematic approach for learning outcomes evaluation.

Peregrine's Early Childhood Education (ECE) assessment services help satisfy CAEP's Standard 5 requirements for maintaining quality assurance.

Standard 5. Provider Quality Assurance and Continuous Improvement

The provider maintains a quality assurance system comprised of valid data from multiple measures, including evidence of

Candidates' and completers' positive impact on P-12 student learning and development. The provider supports continuous improvement that is sustained and evidence-based, and that evaluates the effectiveness of its completers. The provider uses the results of inquiry and data collection to establish priorities, enhance program elements and capacity, and test innovations to improve completers' impact on P-12 student learning and development.

Quality and Strategic Evaluation:

5.1 The provider's quality assurance system is comprised of multiple measures that can monitor candidate progress, completer achievements, and provider operational effectiveness. Evidence demonstrates that the provider satisfies all CAEP standards.

5.2 The provider's quality assurance system relies on relevant, verifiable, representative, cumulative and actionable measures, and produces empirical evidence that interpretations of data are valid and consistent.

Continuous Improvement:

5.3 The provider regularly and systematically assesses performance against its goals and relevant standards, tracks results over time, tests innovations and the effects of selection criteria on subsequent progress and completion and uses results to improve program elements and processes.

5.4 Measures of completer impact, including available outcome data on P-12 student growth, are summarized, externally benchmarked, analyzed, shared widely, and acted upon in decision-making related to programs, resource allocation, and future direction.

Figure 2.27. CAEP's Standard 5 addresses the institution's need for quality assurance and a sustained evidence-based assessment system.

How do schools satisfy this requirement?

PAS exam services and educational support services offer opportunities to address student assessment within the discipline and also co-curricular or career readiness goals through services such as *EvaluSkills: Workplace Skills Assessment* or OLCs. The spectrum of services supports institutions in meeting the CAEP assessment criteria in skills acquisition, student assessment, program evaluation, ethics, and career support.

NAEYC

Peregrine's Early Childhood Education assessment service satisfies NAEYC's Standard 5 requirements for candidates to understand the importance of developmental domains and academic (or content) disciplines in early childhood curriculum. They know the essential concepts, inquiry tools, and structure of content areas, including academic subjects, and can identify resources to deepen their understanding.

STANDARD 5. USING CONTENT KNOWLEDGE TO BUILD MEANINGFUL CURRICULUM

Candidates prepared in early childhood degree programs use their knowledge of academic disciplines to design, implement, and evaluate experiences that promote positive development and learning for each and every young child. Candidates understand the importance of developmental domains and academic (or content) disciplines in early childhood curriculum. They know the essential concepts, inquiry tools, and structure of content areas, including academic subjects, and can identify resources to deepen their understanding. Candidates use their own knowledge and other resources to design, implement, and evaluate meaningful, challenging curriculum that promotes comprehensive developmental and learning outcomes for every young child.

Key elements of Standard 5

5a: Understanding content knowledge and resources in academic disciplines: language and literacy; the arts – music, creative movement, dance, drama, visual arts; mathematics; science, physical activity, physical education, health and safety; and social studies.

5b: Knowing and using the central concepts, inquiry tools, and structures of content areas or academic disciplines

5c: Using own knowledge, appropriate early learning standards, and other resources to design, implement, and evaluate developmentally meaningful and challenging curriculum for each child.

Figure 2.28. NAEYC's Standard 5 addresses requirements for candidates to understand the importance of developmental domains and academic (or content) disciplines in early childhood curriculum.

How do schools satisfy this requirement?

PAS exams meet the criteria outlined in 5b by providing an additional measure for direct assessment of student learning. PAS exams serve as an additional resource for evaluating and ensuring the curricula for PAS exams are reliable and valid. Reliability reports are available for all PAS exams. Peregrine's ECE assessment services help satisfy NAEYC's Standard 5 requirements for maintaining quality assurance.

Meets and Exceeds Expectations/Target

Program evidence *shows* that

- 1) The program *meets* all expectations for this standard at the Initial level *and*
- 2) Demonstrates *specific strengths* that are innovative, transformative, responsive to critical issues in the field, or indicate sustained and meaningful use of data to inform program improvements over a period of time.

Using the column at left

- Assessment tools meet expectations
- Performance data meets expectations *and*
- Program is *using data* to improve teaching and learning and to inform program planning

Program report indicates specific unique or innovative strengths in relation to this standard that respond to needs of candidates, to community or state context, or to critical issues in field including

- Participation in innovative or transformative initiatives, partnerships or research projects *or*
- Sustained and meaningful use of data to inform program planning over time,
- That support candidate learning and performance on the standard.

Figure 2.29. NAEYC's Standard 5 addresses the institution's need for quality assurance and a sustained evidence-based assessment system.

How do schools satisfy this requirement?

PAS exams meet the criteria outlined in the Meets and Exceeds Expectations/Target Rubric for Standard 5 by providing an additional measure for direct assessment of student learning and demonstrating sustained use of data to inform program planning over time. Outcomes performance can be derived from both individual and aggregate data and used for continuous improvement and ongoing program evaluation.

CHAPTER 3:

FOUNDATIONS OF ASSURANCE OF LEARNING

Chapter Objective

Understand the principles of Assurance of Learning and how they contribute to an institution's overall strategy for quality assurance.

Focus Areas

- The goal of Assurance of Learning is to demonstrate that students are achieving learning goals and promote continuous quality improvement with academic programs.
- Assurance of Learning is best understood as a cyclic process: define goals, objectives, measures and rubrics; assess student work; report assessment results; generate improvement ideas; implement ideas; reassess.
- Learning goals/objectives/outcomes have measures (direct and/or indirect) to evaluate the results.
- Assurance of Learning is data/evidence based.
- Assurance of Learning is based on the institution's outcomes, not those set by others. You determine your own student success measures.

*"You can't manage what you don't measure."
- W. Edward Deming*

Thanks to W.E. Deming, grandfather and guru of the continuous improvement, his *Plan, Do, Check, Act - PDCA* cycle is used by businesses and non-business entities across the globe.

Assurance of Learning as a Process

1. What will the students learn in the courses and academic program?
2. How will the students learn what we want them to learn?
3. How will we know if the students learned what we wanted them to learn?
4. What will we do if the students did not learn what we wanted them to learn?

A Comprehensive Assurance of Learning Process

- If you have achieved your targets, reevaluate and raise expectations.
- Evaluate the learning goals on an established timetable.

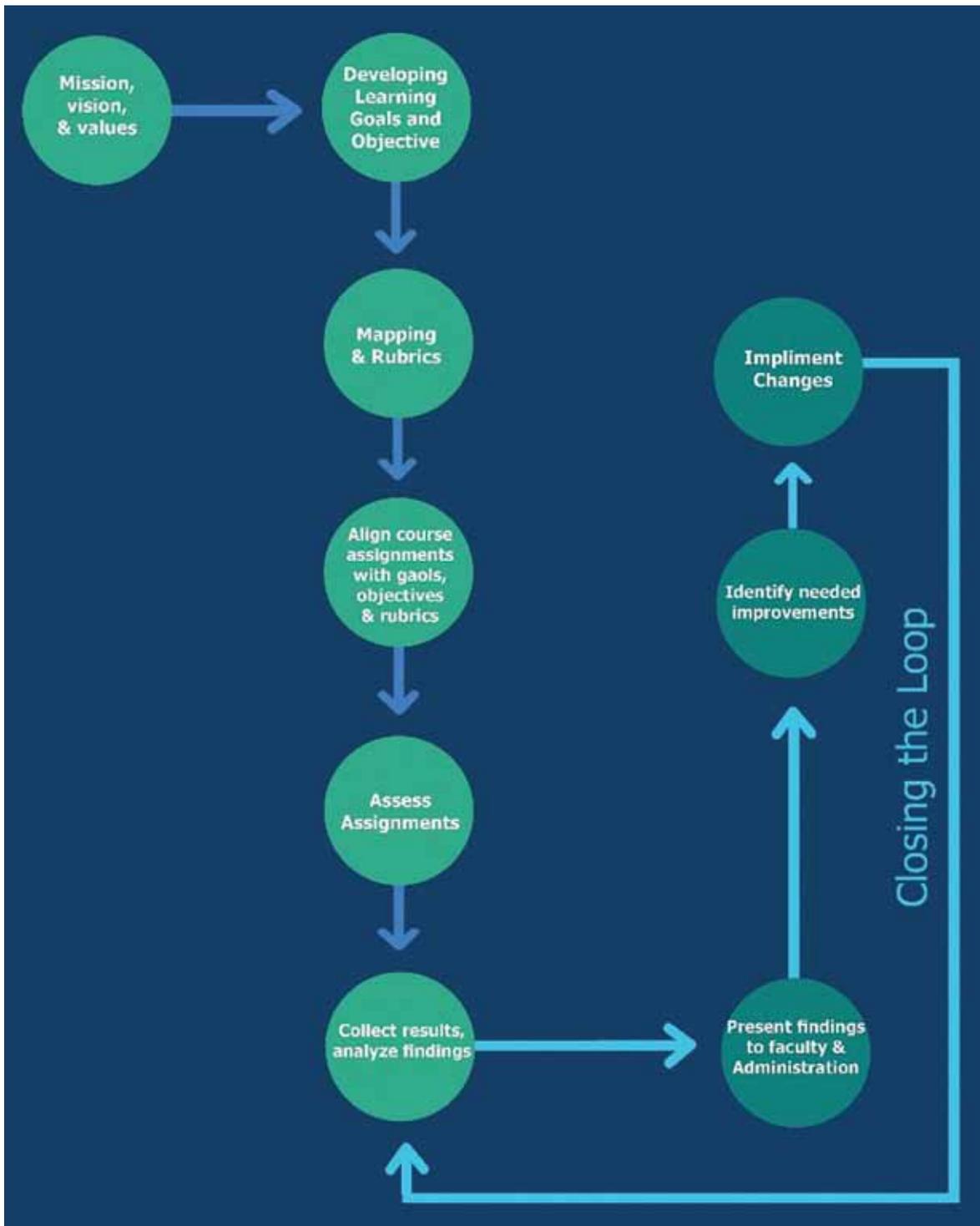


Figure 3.1. The AoL Process Cycle.

The Assessment Cycle

Environmental scanning needs to be integrated in the cycle and the question asked: Are we providing the “right” education? Assurance of Learning will feed that decision-making process. The same cycle applies for a course, academic program, or institution.

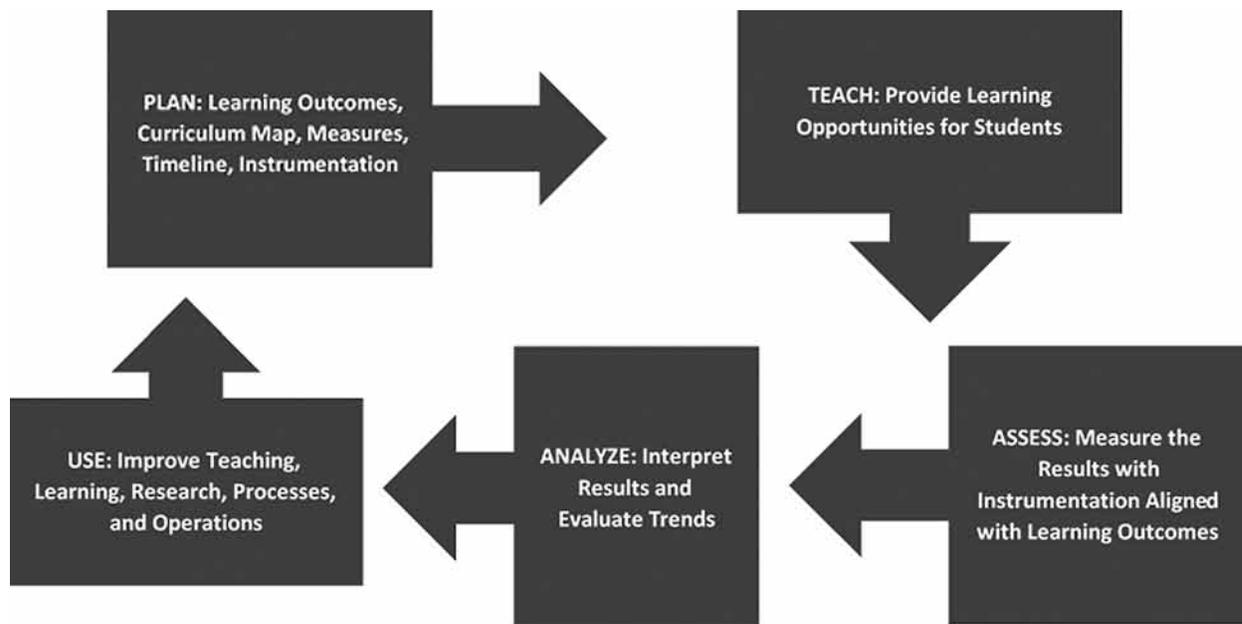


Figure 3.2. Assessment cycle.

An Overview of the Assurance of Learning Process

1. Defining program learning goals in alignment with your institutional goals, mission, expected outcomes, and strategy.
2. Defining measurable program learning objectives in alignment with program learning goals.
3. Identifying direct and indirect measures to assess student learning.
4. Defining rubrics for each measure to identify evaluation criteria for determining level of mastery and/or performance expectations.
5. Collecting and analyzing assessment data.
6. Using assessment for continuous program (and institutional) improvement.
7. Evaluating the effectiveness of program modifications/evolutions implemented as a result of assessment (closing the loop).

In other words, Assurance of Learning asks:

- 1. What do we want our students to learn in our program?
- 2. Is what we want them to learn in alignment with our mission, expected outcomes, and strategy?
- 3. How do we know if our students learned what we wanted them to learn?
- 4. If they did learn it, what are we doing right? If not, what do we need to change to ensure that they do?
- 5. Are we sure that program changes we make are effective?

 **Assessment & Application**

Consider your HEI and your areas of responsibility:

Describe the processes used for Assurance of Learning at your HEI.

What, if any, changes do you need to make to these quality assurance processes?

CHAPTER 4:

DEFINING ASSESSMENT

Chapter Objective

Understanding how assessment should be defined and the differences between direct and indirect assessment.

Focus Areas

- Assessment is the systematic collection, review, and use of information about educational programs undertaken for the purpose of ascertaining and improving student learning and development.
- Assurance of Learning is a process that includes assessment.
- Measures can be both internal to the HEI or external.
- Direct measures are different than indirect measures of student learning.
- There are several methods that can be used for both direct and indirect measures.
- Giving grades is considered insufficient for outcomes assessment.

What is Assessment?

Assessment is the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development (Polomba & Banta, 1999).

Formative vs. Summative Assessment

Formative Assessment:

- Determines a student's knowledge and skills, including learning gaps as they progress through a unit of study.
- Is used to inform instruction and guide learning.
- Occurs during the course of a unit of study.
- Makes up the subsequent phase of assessment for learning.

Summative Assessment:

- Is done at the end of a unit of study to determine the level of understanding the student has achieved (assessing student learning against program learning objectives).
- Evaluates against an expected standard (rubrics against a direct measure).

Direct vs. Indirect Measures

Direct Measure:

Based on students **demonstrating their knowledge or skill** within or outside the learning environment: exams, projects, logs, portfolios, observations...

Indirect Measure:

Based on individuals, other than students, giving their **opinion about how/what students are learning**, either within or outside the learning environment: surveys, questionnaires, interviews, focus groups, reflective essays...

Direct vs. Indirect Methods

DIRECT METHODS	INDIRECT METHODS
<ul style="list-style-type: none">• Pre-test/post-test• Course embedded measures – rubrics & test questions• Exit exams• External assessment exams• Locally developed exams	<ul style="list-style-type: none">• Course alignment matrices• Exit interviews & surveys of seniors• Satisfaction surveys• Employer surveys• Alumni surveys

Internal vs. External Measures

Internal Measure:

The assessment captured by the HEI from measurement systems internal to the institution. Most often the measures use assessment instruments developed and administered by the institution.

External Measure:

The assessment captured from sources outside the institution. These measures can use instruments such as the Peregrine assessments or can be the result of governmental, professional, or licensure exams or tests.

Including questions on an end-of-program student survey that address learning outcomes can serve as an indirect measure of student learning.

Course vs. Program Assessment

As shown in Figure 4.1, there is a distinct difference between course and program assessment.

	Course Assessment	Program Assessment
Level of analysis	Individual class	All courses in a program/curriculum
Sample	100% students in course	20-25% students in program
Measures	Indirect measures such as assignment or final grades in a single course	Direct measures of learning/performance (e.g., rubrics)
Assessor	Course instructor	Any assessor other than student
Faculty input	Individual faculty determining content and performance standards for their course	Group of program faculty determining content and performance standards for the program/curriculum
Results review	Course instructor	Faculty, committees, AB, employers
Continuous improvements (changes)	Course changes to improve student performance in that class made by instructor	Range of changes (e.g., course and curriculum changes) to help improve student performance in program made by group of faculty

Figure 4.1. Course vs. Program Assessment.

Figure 4.1 applies to higher education institutions based in North America and/or institutions that have adapted their practices as such.

The following diagram depicts the relationship of direct, indirect, internal, external, and programmatic vs. course measures and assessment.

Academic Program	<ul style="list-style-type: none"> Capstone projects, senior theses, exhibits, or performances (internal to school only) Student publications or conference presentations Employer and internship supervisor ratings of students' performance 	<ul style="list-style-type: none"> Externally normed assessments, e.g. Peregrine, ETS, etc. Pass rates or scores on licensure, certification, or subject area tests Job Placement Department or program review data 	Summative
		<ul style="list-style-type: none"> Employer or alumni surveys Focus group interviews with students, faculty members, or employees Student perception surveys 	Formative
	Internal	External	
Course	<ul style="list-style-type: none"> Exams / Standardized tests Case study analyses Rubric scores for assignments, reports, and research projects Rubric scores for writing, oral presentations, and performances Observations of field work, internship performance, service learning, consulting projects Quizzes Class discussion participation 	<ul style="list-style-type: none"> Course evaluations Grades not based on explicit criteria related to clear learning goals Test blueprints (outlines of the concepts and skills covered on tests) Percent of class time spent in active learning Number of student hours spent on service learning Number of student hours spent on homework Number of student hours spent at intellectual or cultural activities related to the course 	Summative
			Formative
	Direct	Indirect	

Figure 4.2. Relationship of direct, indirect, internal, external, and programmatic vs. course.



Assessment & Application

Consider your HEI and your areas of responsibility:

How does your Assurance of Learning process integrate adopted methods for assessment of student learning at your institution (which of the methods are primarily used: direct, indirect, formative, and summative assessment; internal, and external comparative data.)?

What, if any, challenges do you have regarding an institutional understanding of Assurance of Learning at your HEI? Are goals for Assurance of Learning misaligned with actual assessment processes?

It is best to have more than one direct measure of learning as this allows you to measure the effectiveness of the measuring tool and have more confidence in the data.

CHAPTER 5:

INTEGRATING ASSESSMENT WITH STRATEGIC MISSION AND GOALS

Chapter Objective

Understanding the processes used to integrate assessment with the institution's mission and goals.

Focus Areas

- Understanding the global context for higher education quality.
- Knowing assessment is part of the strategic planning process.
- Synchronizing the assessment cycle with the planning cycle.

Considerations for Understanding the Global Context for Quality Higher Education

- Making sense of the complex and shifting HEI landscape requires an increasing array of information and resources.
- Central elements of quality education planning require a focus on internationalization, regional, and local contexts in instructional planning.
- Rapid growth of cross-border education provisions speaks to increasing competition as scholars become more internationally mobile.
- World-class status is no longer an aspiration but a driver for seeking accreditation.
- Producing globally competent graduates capable of understanding and functioning in a complex and interconnected world is a fundamental part of setting educational priorities and quality measures in higher education.
- Emphasis on cooperative networking among higher education institutions, international/national higher education systems, as well as global partners is important to sustaining a high level of quality programs.

Assessment as Part of the Strategic Planning Process

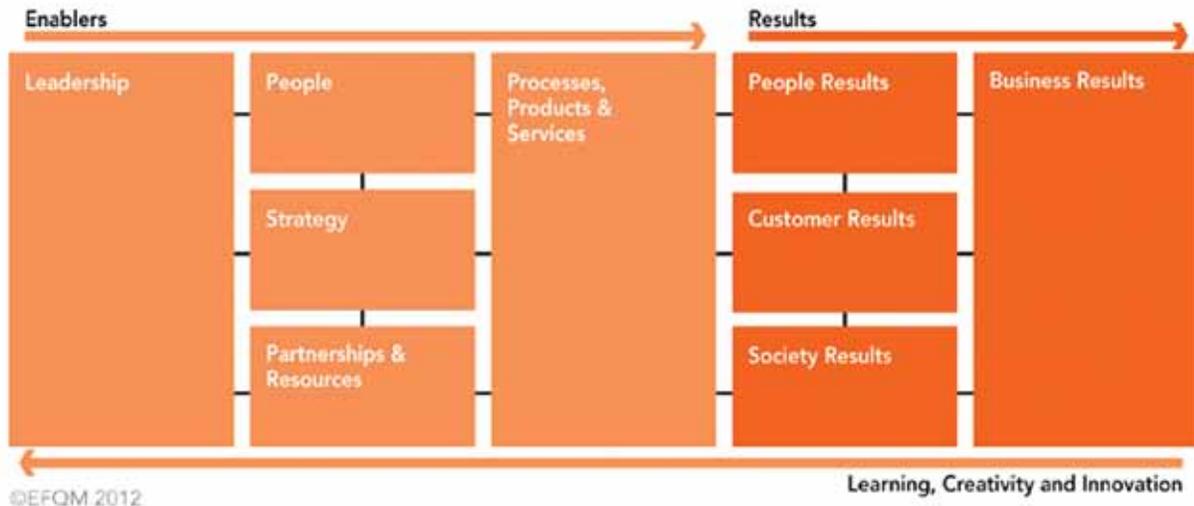


Figure 5.1. The EFQM Excellence Model is based on nine criteria.

The EFQM Excellence Model is based on nine criteria. Five of these are “Enablers” and four are “Results”. The “Enabler” criteria cover what an organization does and how it does it; the “Results” criteria cover what an organization achieves.

Assessing Enablers

When assessing **ENABLERS**, we look at the **approaches** adopted, how they have been **deployed** and how the organization **assesses and refines** their efficiency & effectiveness over time.

Using a systems approach to the institutional assessment framework assures the design, development, and delivery of assessment and evaluation activities are well defined and strategically aligned.

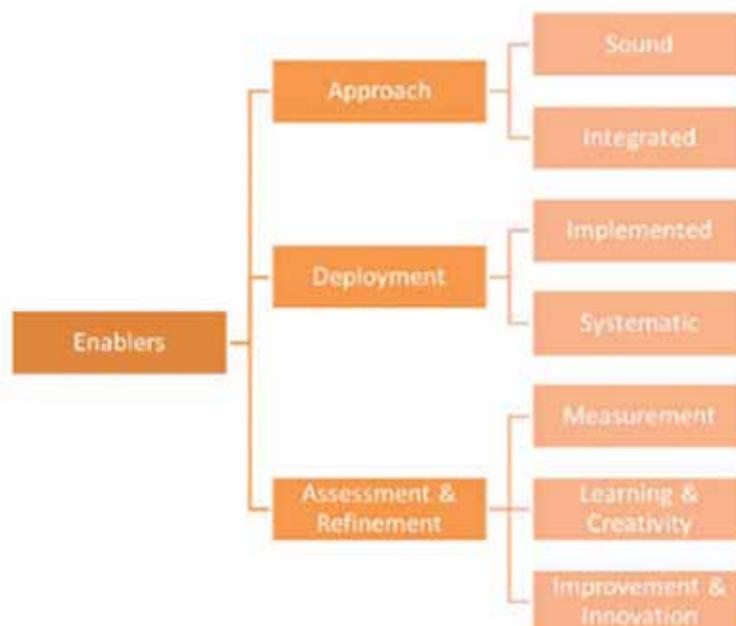


Figure 5.2. Assessing enablers.

Assessing Results

When assessing **RESULTS**, we first look at their **relevance** to the organization's strategy and how **useful** they are in reviewing progress against these key objectives. We then look at the **performance** of the results themselves.



Figure 5.3. Assessing results.

When evaluating the approaches used in programmatic assessment, strategic context is important. Are the learning outcomes relative and achievable based on the program design? Two key perspectives should be explored.

Perspective 1 looks at overall student outcomes. Usually, these are the aspirant goals by which faculty and students evaluate themselves.

Key questions explored:

- What did we seek to teach?
- What did we seek to learn?
- What did we do?

Perspective 2 looks at real world outcomes and their relativity. That is, whether or not the achieved outcomes are relative to the discipline, marketable to employers, and whether or not they represent the depth of knowledge the student should walk away with as a result of completing a program of study. Usually, these are evident outcomes by which external stakeholders evaluate students and programs of study.

Key questions explored:

- Has knowledge of the discipline been transferred?
- Are employer and societal needs being met?

Based on the key questions explored, each perspective seeks to improve the overall design and outcomes delivered by the model. In summary, perspective 1 provides the principal requirements for setting the teaching and learning objectives, while perspective 2 answers why the essentials of learning are important. When applying the perspectives, determine if the inputs and outputs defined are likely to produce outcomes consistent with the strategic direction and mission of the program. If not, revisit the assumptions used to create the model and make changes. It is important to review the process and outputs produced routinely for continuous improvement.

Process improvements are much easier to identify if you have a visible logic model or approach to assessment. The key is to address the *what* to assess but also the *why* to assess. The latter will drive the *who*, *when*, *where*, and *how* for creating a sustainable, simple assessment program that aligns with your business unit's strategic direction. As noted earlier, establishing an assessment committee should help achieve a sound approach that works for your institution.

Synchronize the assessment cycle with the planning cycle

The 7 Steps	Stakeholders in the Assessment Process
1.) Engage the Administration & Faculty Teams	Institutional/Academic Unit Administration, Faculty, and Staff
2.) Plan the Assessment	Institutional/Academic Unit Administration, Faculty, Staff, Students, & Partners
3.) Train the Participants	Institutional/Academic Unit Administration, Faculty, Staff, Students, & Partners
4.) Conduct the Assessment	Institutional/Academic Unit Administration, Faculty, Staff, Students, & Partners
5.) Agree on Priorities	Institutional/Academic Unit Administration, Faculty, Staff, Students, & Partners
6.) Develop Action Plans	Institutional/Academic Unit Administration & Faculty
7.) Monitor Progress	Institutional/Academic Unit Administration & Faculty

In the design of an assessment system, a review cycle with a schedule for test administration, data collection, evaluation, analysis, and reporting will improve deployment efforts. As a result, effective systems share common traits as they relate to effectiveness and efficiency.

1. Assessments are only delivered where necessary.
2. Both formative and summative assessments are used strategically.
3. Internal and external benchmarks are well defined, and key assessments are determined based on program curriculum and outcomes' assessment maps.
4. Result and analyses information are pushed and pulled from well-articulated and easy to access channels.
5. Improvement projects are streamlined based on capacity and strategic priority.

Hence, evaluation and assessments are done at regular intervals or cycles of review to produce documented results. Key drivers of assessment are based on producing student learning data but also executing a consistent approach and deployment strategy that encourages organizational learning and continuous improvement. Thus, evidence of assessment is not only evaluated through student learning artifacts but also through process delivery and sustainable practices executed by the program.

Notably, a well-designed assessment program will reflect a level of simplicity in design to ensure sustainability. In discussion, "simple" focuses on the usefulness of results, ease of implementation, and sufficiency of data objectives evaluated. As a result, a "simple" approach often increases value for all stakeholders by ensuring the right things are measured and analyzed at the right time and place in a program's curriculum. Simplicity improves the chances of utilizing results and analyses for continuous improvement. It is linked to the program's curriculum and outcomes' mappings. The linkages assist faculty in measuring student learning targets with a more focused approach to making curricular changes and improving instructional practices. In this regard, identifying the essentials and articulating the foundations of assessment enable successful "closing the loop" strategies. More importantly, it helps programs avoid focusing on ancillary assessment data while prioritizing data related to outcomes achievement. Moreover, the design for sustainability involves looking at the complexity of the assessment practices and program's capacity to deploy, maintain, and improve the system over time and continuously evaluate its rigor and effectiveness to produce improvement results.

Sustainable assessment programs include: A formalized or written plan of assessment; actual results and analyses; deployed continuous improvements; well-articulated and documented assessment processes; student, faculty, administration, and external stakeholder involvement; and institutional support.



Assessment & Application

Consider your HEI and your areas of responsibility:

What is the current assessment process at your institution? (How are people, process, and technology organized to implement the assessment strategy?)

Explain how the assessment process is integrated into the institution's mission goals. If not, what are the barriers?

CHAPTER 6: ASSESSMENT MANAGEMENT

Chapter Objective

Understand campus-wide assessment management process.

Focus Areas

- A design-based assessment architecture approach generally works best for the academic institution.
- Assessment management is a process.

A Problematic Assessment System

Figure 6.1. The figure illustrates several common disconnects or issues that arise in the assessment approach. The disconnects or common failings can be thought of in four categories: elements needed in the basic structure of the approach; assessment processes; inappropriate use of technology; and inadequate assessment expertise and skills. Classrooms, departments, and programs live as data islands. There is little or no connectivity in terms of common approaches or the consistent use of data.

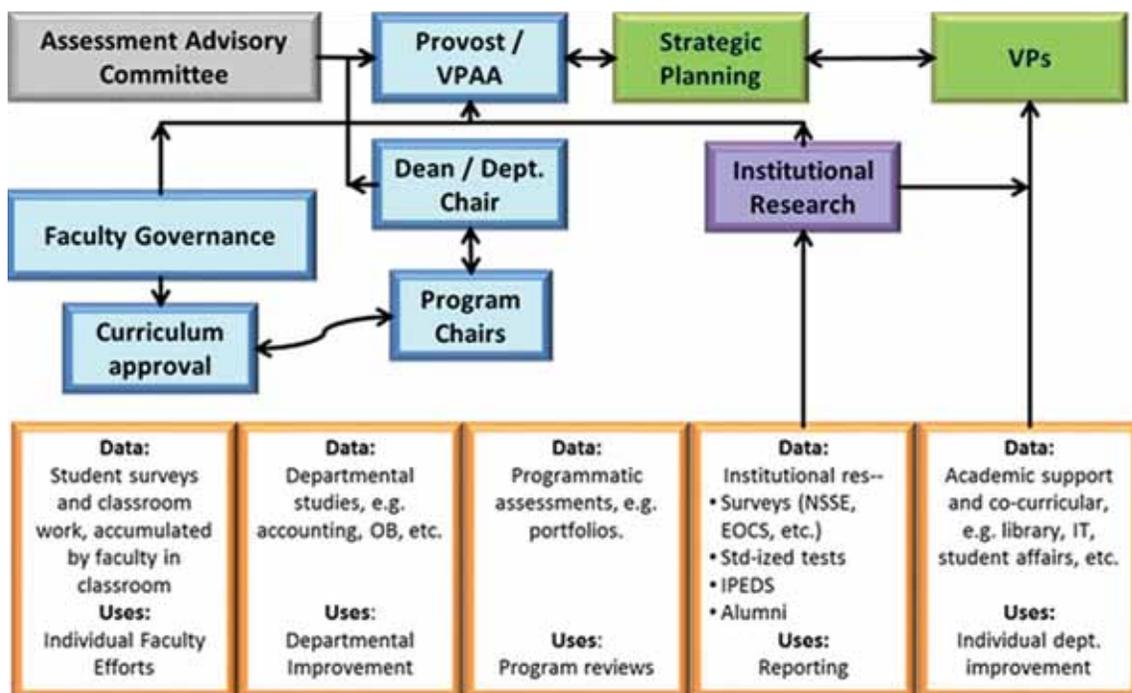


Figure 6.1. A problematic assessment system.

A Design-based Assessment Architecture

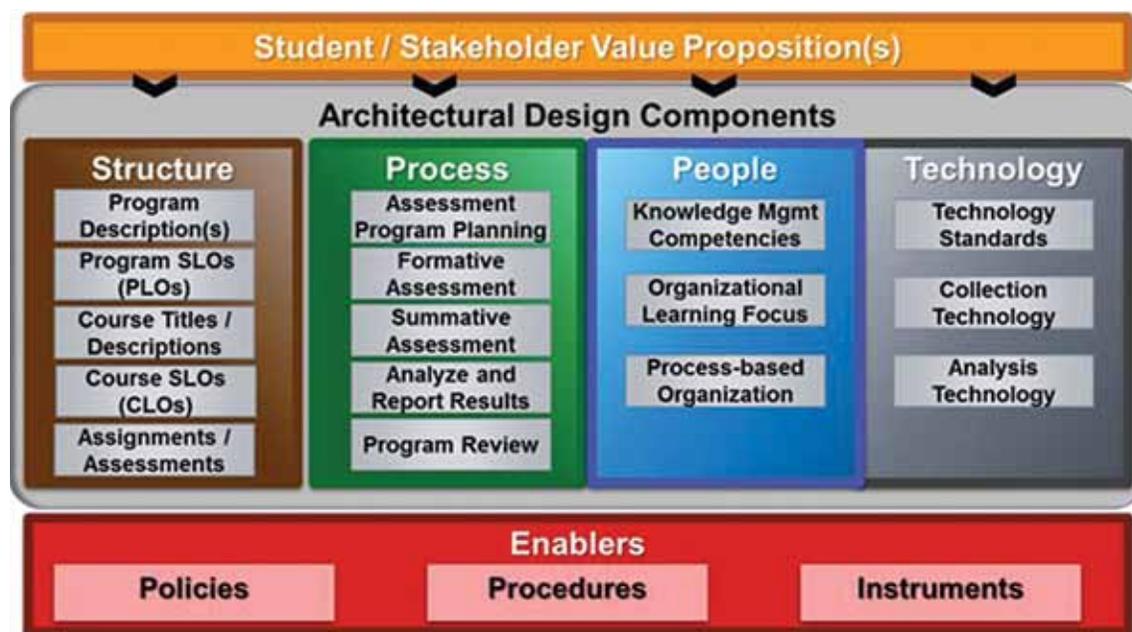


Figure 6.2. A design-based assessment architecture.

The value propositions served by the program are the first point of focus and should ultimately drive the overall design of assessment.

A Process for Assessment Management

1. Determine educational outcomes or competencies.
2. Map curriculum/outcomes.
3. Map the assessment (exam) topics and subjects to the learning outcomes (course and/or program).
4. Set benchmarks and targets (assessment criteria).
5. Schedule and administer the exams.
6. Run the reports and compare the results against the desired benchmarks and targets.
7. Identify programmatic strengths and opportunities for improvement.
8. Implement curriculum changes. Note: you may want to have at least three data points to validate the results and see trends.
9. Repeat assessments and reevaluate the results.

It is key to have the accreditation team, deans, and program directors involved in evaluating the results of program assessments to ensure agreement if changes need to be made to program content.

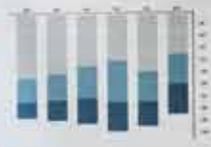
A Note on Educational Outcomes or Competencies

The foundation of an assessment program is measuring what matters for students and stakeholders of the institution. Students are most concerned with realizing value from their education, whether that is employment, professional advancement, or further studies. There are several approaches to developing relevant educational outcomes. Several areas to consider are the following:

Defining the academic discipline core. What is known about the core concepts and needs in this area? Are there general competencies that must be satisfied? Are there profession-specific competencies that are expected?

- **Defining the academic discipline core.** What is known about the core concepts and needs in this area? Are there general competencies that must be satisfied? Are there profession-specific competencies that are expected?
- **Understanding student outcome pathways.** What is the *value proposition* for students to undertake education with your institution: employment (career pathways), professional advancement, or further studies?
- **Securing stakeholder input.** What do key stakeholders, beyond students, expect from a program of academic study?
- **Honing the program elements.** Review and revise potential curricular elements based in student outcomes and stakeholder input.
- **Develop the Assurance of Learning assessment plans and protocols.** The plan of assessment should match the nature and type of program. Attention should be given to developing assessments that will not only measure student performance but also provide information and data on the quality of the academic program and curriculum.
- **Implement, test, and revise.** An academic program may not perform as anticipated when implemented. A key benefit of the assessment planning is understanding what worked and what did not in a new curriculum.

The approach outlined above is often known as tuning. A complete explanation of the process of tuning is available from the Institute for Evidence Based Change (2012) at http://www.iebcnow.org/wp-content/uploads/2016/12/pub_tuningprocess_2012.pdf



Trading Graph

It is a good idea to have a trading plan and to stick to it. The goal is to increase sales and achieve the advantage over other companies.

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Monday, July 14, 2014
Cyclopedia

y of the n Union

A business leader must have a long-term strategy of marketing that has to do with the analysis of a company's market and its competitive environment. The objectives are to be based on the size of the market, the growth rate, and the competitive environment.

Product	North America					
Product A	23,700	45,300	17,300	70,775	24,700	45,300
Product B	150	100	500	300	100	100
Product C	100	100	100	100	100	100
Product A - Asia	25,300	47,700	13,900	29,200	20,500	47,700



SECTION **II**

**DESIGNING &
DEVELOPING
AN ASSURANCE
OF LEARNING
APPROACH**

DESIGNING & DEVELOPING AN ASSURANCE OF LEARNING APPROACH

Section II connects the strategic context for applying Assurance of Learning principles to a step-by-step process outlined within Chapters 7 and 8. An overview of program goals, objectives, and outcome statements are broadly defined to introduce across the spectrum of global to program accreditors, assessment terminology, and broad concepts for developing and applying Assurance of Learning practices.

Chapters 9 and 10 introduce practical assessments found in typical Assurance of Learning processes by introducing course and programmatic assessments and the complement of direct and indirect measures that can be used to enhance an institution's approach to assessment planning.

Chapter 11 builds an understanding of the approach of using course embedded assessment to address Assurance of Learning requirements.

Chapter 12 discusses implementation strategies and how to map learning outcomes throughout the institutional hierarchy.

CHAPTER 7: DEVELOPING PROGRAMMATIC (COURSE) GOALS AND OBJECTIVES

Chapter Objective

Understand how to put into place clear programmatic goals and objectives.

Focus Areas

Goals and objectives are variations of learning outcomes.

Learning Outcomes

A learning outcome is...

- A measurable, observable, and specific statement that clearly indicates what a student should know and be able to do as a result of learning.

Well-written learning outcomes involve the following parts:

- Action Verb
- Subject Content
- Level of Achievement
- Condition of Performance (if applicable)

What is a Learning Goal?

“Learning goals are the product of faculty reflection on the skills, attitudes, and knowledge that they expect students to learn as a result of matriculating through their institution’s programs.

They are the roadmap for the curriculum and are the foundation on which the assessment program is built.

However, learning goals are broad and not sufficiently specific and observable to be measured.” (Martell, 2005)

Learning Goals vs. Outcomes

Unlike learning outcomes (objectives), learning goals:

- Are broad/lack specificity.
- Cannot be easily observed.
- Are difficult, if not impossible, to measure.
- Specify what students will be or have as a profile as a result of completing the program.

The Most Popular Undergraduate Program Learning Goals:

- Knowledge
- Communication
- Thinking skills
- Ethical perspective
- Technology competence
- Global perspective
- Teamwork

Some Popular Program Learning Goals at a Masters' Level:

- Application.
- Depth of knowledge.
- Adaptation of knowledge to innovate in unique circumstances.
- Integration of knowledge across disciplines.
- Leadership/responsible leadership.

Some Common Doctoral Program Learning Goals:

- Expert knowledge of literature.
- Ability to synthesize and critique research in field.
- Ability to design and implement a sound research project.
- Ability to communicate scholarly work.
- Make a distinctive/original contribution to the body of knowledge.
- Design of methods and systems.
- Teaching skills.

Goals vs. Objectives

- As we previously noted, goals are broad, general, and difficult to measure.
- Based on the goals, learning outcomes (or objectives) are written.
- Learning outcomes are specific and measurable.

The key to creating a sustainable approach to assessment begins with identifying existing assessment practices that are well-articulated and developed collaboratively by the business unit. Implementing a team approach to learning outcomes development is an example of creating a community of practice related to Assurance of Learning. Developing outcomes as a faculty helps to build a strong culture of assessment.



Assessment & Application

Based on your mission:

Identify at least three learning goals for your academic program(s).

Goal 1	
Goal 2	
Goal 3	

Evaluate whether your existing learning goals are sufficient for your HEI. If not, what do you need to do?

CHAPTER 8: LEARNING OUTCOMES

Chapter Objective

Understanding how learning outcomes/objectives identify specific, observable behaviors and actions related to a goal that a HEI may use to describe, monitor, and assess student achievement.

Focus Areas

Learning outcomes are statements that describe significant and essential learning that students have achieved and can reliably demonstrate at the end of a course, academic program, or educational experience.

- Learning outcomes identify what the student will know and be able to do by the end of instruction.
- Five possible levels of learning outcomes: course, program, department, college/school/division, and institution. Not every institution will have all five levels.

Goals vs. Outcomes

Goals express what you want your students to be or have as a profile upon graduation.

- Outcomes (objectives) describe what you want your students to do or make as evidence of achieving the outcome.
- Outcomes are performance indicators of goals.
- To be assessable, outcomes must be written so they specify behaviors we can observe or results (products) we can measure.

Course-level Learning Outcomes

At the conclusion of the course, the student should be able to:

- Explain the principles of _____.
- Analyze _____ based on the concept of _____.
- Apply the concept of _____.
- Describe the core tenets of _____.

Program-level Learning Outcomes

Upon successful completion of this academic program, students should be able to:

- Evaluate and apply the basic principles of _____, _____, and _____.
- Be able to explain _____ in the workplace.
- Demonstrate how to _____.
- Use critical thinking to solve problems related to _____.

Bloom's Taxonomy

One of the most commonly used models for developing learning objectives is Bloom's Taxonomy. Bernard Bloom developed three sets of taxonomies, beginning in 1956. The taxonomies represent three domains of learning: cognitive (knowledge), affective (emotional and attitude skills), and psychomotor (movement, coordination, use of physical movement).

The cognitive domain is the most developed and used for higher education because of the focus on knowledge acquisition. There are many cases, however, when the three domains overlap. For example, training a surgeon to succeed in complex surgical techniques would involve acquiring knowledge of the parts of the human body, learning the skills of manipulating surgical instruments, and mastering team relationships of the surgical team.

The techniques found on the next page focus on the cognitive domain because of its predominance in higher education. If adequate assessment of a program would require affective or psychomotor skills, the techniques outlined for the cognitive domain could be used to develop and assess educational objectives.

A simplified version of the Bloom's Taxonomy of verbs in the cognitive domain that are helpful when writing learning outcomes/objectives, etc.:

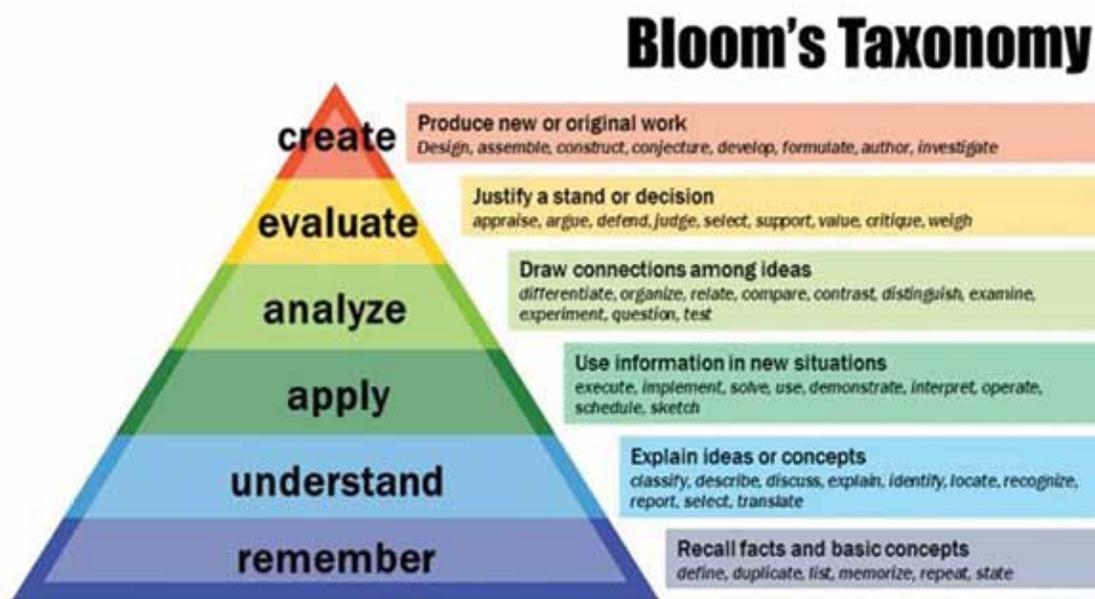


Figure 8.1. Bloom's Cognitive Domain Taxonomy.

Choosing the Best Action Verbs

VERY HARD TO MEASURE	STILL HARD TO MEASURE	RELATIVELY EASY TO MEASURE
Students will be able to:	Students will be able to:	Students will be able to:
appreciate the benefits of exercise.	value exercise as a stress reduction tool.	explain how exercise affects stress.
access resources in the college library database.	recognize problem solving skills that would enable one to adequately navigate through the proper resources within the college.	evaluate the most appropriate resource that is pertinent to their college concern.
develop problem-solving skills and conflict resolution.	understand how to resolve personal conflicts and assist others in resolving conflicts.	demonstrate to classmates how to resolve conflicts by helping them negotiate agreements.
have more confidence in their abilities.	identify critical thinking skills, such as problem solving as it relates to social issues.	demonstrate the ability to analyze and respond to arguments about racial discrimination.

A common theme in the example of very hard to measure is that the verbs describe aggregated skills that are composites of several elements of knowledge, skills, and abilities. Measures of aggregated skills are difficult to develop and often produce conflicting indications.

The statements in the second column are difficult to measure accurately because they represent internal thought processes of the learner. The observable external behaviors of the learner can vary substantially with the same internal thoughts.

The verbs that are easier to measure all represent areas where an assessment technique or instrument can be developed to provide a clear and relatively unambiguous indication of performance. The behaviors are observable through the use of techniques validated over time and whose use is understood by learning professionals.

A Program with Core and Specialization Learning Outcomes

Intended Student Learning Outcomes (ISLOs) for the MBA:

1. Students will be able to demonstrate well developed problem-solving skills, be able to recognize problems, analyze uncertainty, and interpret and use data.
2. Students will be able to articulate the major theories concepts in the areas of accounting, finance, management, and marketing.
3. Students will be able to identify opportunities and challenges of globalization.
4. Students will be able to recognize ethical problems and apply standards of ethical behavior in decision making.

Intended Student Learning Outcomes Specialization in International Business (IB ISLOs):

1. Students will be able to assess the risk and opportunities associated with operating in a multicultural, global business environment.
2. Students will be able to identify and articulate international dimensions of accounting, finance, management, and marketing.
3. Students will be able to apply theory and practice to affect strategic decision making of international organizations.
4. Students will be able to assess key international issues relating to legal, ethical, socially-responsible, and sustainable business practices.

Department Learning Outcomes

Learning outcomes for all majors within this department are as follows:

- Students should be able to write software in several programming languages, including intermediate to expert proficiency in at least two languages of distinct paradigms.
- Students should be able to quickly and independently learn new programming languages and software systems. This includes being able to find appropriate resources for learning those languages.
- Given a particular application, students should be able to formulate the problem to be solved in an algorithmic framework, and appropriately pose algorithms that would solve the problem.
- Students should be able to mathematically analyze the time and space requirements of algorithms and their associated data structures, at least at a level appropriate for undergraduates.

A useful summation of measurement tools can be found at <http://www.smu.edu/Provost/assessment/Measures> or <https://wp.stolaf.edu/ir-e/assessment-of-student-learning-2/>

College/School/Division Learning Outcomes

Graduates of the college/school/division should be able to:

- Demonstrate they have acquired knowledge necessary for the continuing study of the world's peoples, arts, environments, literatures, sciences, and institutions i.e., learning to learn.
- Demonstrate substantial knowledge of a field of study and the modes of inquiry or methodologies pertinent to that field.
- Formulate and solve problems.
- In their chosen field of study, conduct disciplinary and/or interdisciplinary research and/or undertake independent work which may include artistic creation or production.

Evaluate the Program LOs. What, if any, work is needed to get the performance level of the PLOs to the required level?:

List your proposed improvements below.

Improvement 1	
Improvement 2	
Improvement 3	

CHAPTER 9: PROGRAMMATIC VS. COURSE-LEVEL ASSESSMENT

Chapter Objective

Understand the difference of formative and summative assessments and the importance of measuring both.

Focus Areas

- Faculty conduct course-level assessments related to the course-level learning outcomes. Course assessment evaluates the instruction for that course in that specific academic term.
- Programmatic assessment evaluates student learning based on the program-level learning outcomes.
- Programmatic assessment considers the totality of the academic program by discipline with specific considerations for majors and minors (concentrations or specializations).
- Although the program includes all the courses included in the program, programmatic assessment IS NOT the summary of all course-level assessments.

Course-level Assessment

Course-based Assessment refers to methods of assessing student learning within the classroom environment, using course goals, objectives, outcomes, and content to gauge the extent of the learning that is taking place.

Course Assessment Plan		
Type of Assessment	Weight	Comments:
Four quizzes (5% each)	20%	<i>Quizzes on weeks 2, 4, 8 and 10. Group project is summative. Participation is required in all discussions.</i>
One individual essay	15%	
One midterm exam	20%	
Blogposts (minimum 3)	5%	
Participation	10%	
One group project	30%	
TOTAL	100%	

Figure 9.1. Example of course assessment plan (grade table)

Formative vs. Summative Assessment

Formative (Course-level Assessments):

- Is an integral part of the learning process.
- Is used to evaluate and improve learning.
- Enhances student intrinsic motivation, their desire to learn.
- Contributes to improvements in teaching effectiveness as you can adapt teaching methods based on student learning progress.

Summative (Program-level Assessments):

- Occurs at the end of the learning process.
- Is used for accountability of the academic program.
- Impacts the student's extrinsic motivation, the reason why they are completing the program - could be they need it to gain employment.
- Often done in a pre/post format to demonstrate value added.
- Measures integrated knowledge/retained knowledge.

Programmatic Assessment

Program assessment is a process used to provide a program with feedback on its performance with the intent of helping improve the program and, in particular, to improve student learning.

- Focuses on continuous quality improvement.
- Examines program outcomes, customer satisfaction, and unit performance to identify areas to improve.
- Leads to actions.
- Conducted regularly with each student cohort.

Peregrine's Programmatic Assessment Services

- A summative, direct measure of student learning.
- Evaluates student retained knowledge based on the foundational concepts of an academic program.
- Includes questions related to the entire academic program.
- Can provide feedback to course-level outcomes.

Remember that the final grade in a course and/or grade point averages are not measures of program learning outcomes. They do not measure retained learning of a program's overall learning outcomes.



Assessment & Application

Consider your HEI and your areas of responsibility:

Describe your formative assessment approaches.

Describe your summative assessment approaches.

What, if any, gaps exist with your current assessment approaches?

CHAPTER 10:

DIRECT AND INDIRECT MEASURES OF STUDENT LEARNING AND OPERATIONAL OBJECTIVES: MEASURING LEARNING OUTCOMES

Chapter Objective

Understand and be able to develop direct and indirect measures of student learning outcomes.

Focus Areas

- Assessment is either formative or summative.
- Measurement can be either direct or indirect.
- There are multiple ways in which learning outcomes can be measured.
- Direct, summative assessment is the most common approach for programmatic evaluation.
- Measures are the tools we use to assess; targets are the performance levels we aim to achieve (standards or thresholds) from the measures.

Differentiating between Learning Goals and Objectives vs. Operational Goals and Objectives

- Goals often indicate broad learning outcomes because there are many skills needed to be learned within each goal.
- Objectives indicate a specific learning outcome, which is derived from the institutional, college/school, departmental, program, and or course goals.
- Operational goals focus on managing and supporting business activities that enable the institution or academic unit to thrive.
- In education, operational objectives (also known as tactical objectives) are short-term goals whose achievement brings an institution or academic unit closer to its long-term (strategic) goals.

Note: A learning goal usually has multiple learning objectives.

Learning Goals and Objectives & Operational Goals and Objectives Examples

Student Performance

Examples include:

- Demonstrate an ability to apply economic principles to problems of farms, ranches, and other institutions in the food and fiber industries.
- Demonstrate an understanding of the role of civic responsibility, including corporate and cooperative governance.

Institutional or Academic Unit Performance

Examples include:

- Improve student retention in the major.
- Improve graduation rates (or other student success measure).
- Increase student satisfaction with the quality of instruction in the major.
- Increase number of student research/scholarly projects.

Direct and Indirect Measures of Student Learning

Student learning can be measured using a number of methods. The methods are commonly grouped into two categories: direct and indirect measures.

Best practices recommend the use of both direct and indirect measures when determining the degree of student learning that has taken place.

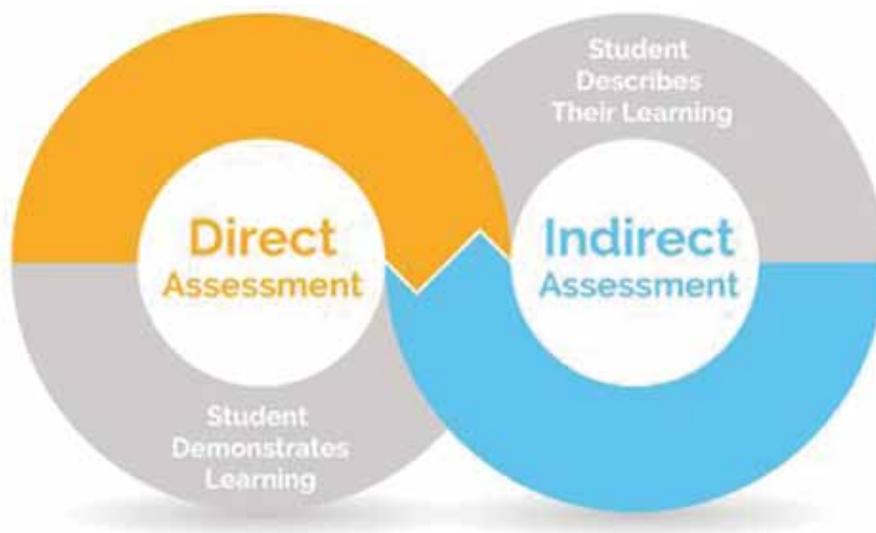


Figure 10.1. Direct and indirect assessment.

Direct Measures of Student Learning – Course Level

Course level direct measures are regularly employed to measure learning in the classroom.

Direct measures are those that measure student learning by assessing actual samples of student work.

Examples include exams/tests, papers, projects, presentations, portfolios, performances, etc.

Because direct measures capture what students can actually do, they are considered best for measuring levels of achievement of student learning on specific outcomes.

Note: Learning Outcomes are generally stated on the course syllabus.

Direct Measures of Student Learning – Program Level

Program level direct measures are regularly employed to measure 'retained' knowledge and skills expected at the end of a program of study.

Outcomes are written to capture 'expected' results of student retained knowledge.

Generally, the measures are standalone but can be 'embedded' into a course.

Direct measurement results are generally used to support continuous improvement at the institution.

It is important to note that 'grades' in a course cannot be used as direct measure of learning on the program level. A student's grade at the end of the course includes a number of items that do not relate to whether they have retained knowledge, i.e., attendance, participation, group work, etc.

Indirect Measures of Student Learning

Indirect measures provide a less concrete view of student learning; for example, attitudes, perceptions, feelings, values, etc.

Indirect measures imply student learning by employing self-reported data and reports.

Indirect measures help to substantiate instances of student learning.

Indirect measures include surveys, interviews, course evaluations, and reports on retention, graduation, and placement, etc. Indirect measures are best situated at program or university level assessment.

These measures are commonly used in conjunction with direct measures of student learning.

Measuring Learning Outcomes

Examples include:

DIRECT MEASURES	INDIRECT MEASURES
<ul style="list-style-type: none"> • Standardized assessments • Structured and guided internships • Graduate employment rates • Oral exams • Final projects • Team projects • Direct course level • Course-based exams and assignments • Term papers • Lab reports, case studies • Clinical experience • (Arts Courses) Performances 	<ul style="list-style-type: none"> • Satisfaction surveys • Interviews • Evaluations • Focus group discussions

Defining and Setting Measurement Targets for Programmatic Evaluation

Percent change from the Inbound Exam to the Outbound Exam (knowledge gained), e.g., students improved their scores by an average of 35% or higher.

- Percentile Rank on the Outbound Exam, e.g., 95th Percentile.
- Score, e.g., mean score of 60% or higher.
- Thresholds, e.g., mean score 5% or higher than other students within our peer group.
- Trends over time, e.g., improve 5% per year for the next 5 years.
- Combination, e.g., $\geq 75\%$ of the class obtained scores that were in the $\geq 80^{\text{th}}$ percentile with at least a 20% gain compared to similar students at peer institutions.
- Academic experience trend, e.g., improve scores of $\geq 10\%$ from Inbound to Mid-Point to Outbound.

Consider raising the bar if all of your targets have been met.



Assessment & Application

Consider your HEI and your areas of responsibility:

What, if any, direct measures of student learning are you currently using?

What, if any, indirect measures of student learning are you currently using?

Where do you have measurement gaps?

CHAPTER 11:

COURSE EMBEDDED ASSESSMENT

Chapter Objective

Understand the approach of using course embedded assessment to address Assurance of Learning requirements.

Focus Areas

- Course embedded assessment is a methodology used in Europe and other regions of the world to address Assurance of Learning.
- School goals are mapped to program objectives. Outside the US, a school within a University is commonly referred to as a 'faculty'.
- AoL-specific assignments are evaluated using standardized rubrics by the course instructors. Outside the US a 'course' is often referred to as a 'module'.
- AoL reporting necessitates rolling up the AoL-specific assignments and the course embedded assignments as a direct measure of learning outcomes (objectives).
- Integrating course embedded assessments with Peregrine Academic Services.

Understanding Course Embedded Assessment

In much of Europe, and in other regions of the world that are heavily influenced by the British system of higher education, academic institutions often use course embedded assessment as a methodology for satisfying the requirements for Assurance of Learning. Rather than conduct a program-level assessment at the end of the academic program, a specific assessment is conducted throughout the program of study using course embedded assessment.

Faculty responsible for the course evaluate student performance relative to program objectives using standardized rubrics for the various course embedded assessment items. A unique rubric is used for each learning outcome.

Data are subsequently consolidated and reported at the program level to help satisfy Assurance of Learning requirements. Each academic program is listed, and the rubric results from the course embedded assignments are summarized. Academic program managers then evaluate the results, make any needed changes to the academic program, and monitor subsequent assessment results.

Terminology of Course Embedded Assessment

The following terms are presented to help understand the course embedded assessment methodology and the British higher education approach:

Faculty. The term faculty is used to denote specific schools or colleges within the academic institution.

Goals. Typically, goals are written at the school/college-level (faculty-level). Each school or college within the academic institution will have 3-6 learning goals. Goals represent the broader learning that is to be obtained by all students within the school or college (faculty) of the higher education institution.

Module. The term module is similar to a course in the U.S. model.

Objectives. The term objectives is often used instead of learning outcomes. Each academic program will have 3-6 learning goals. Each goal includes 3-6 learning objectives (learning outcomes) that are to be obtained by the student upon completion of the academic program.

Place of Measure/Data Point. The specific location, usually within a course (module), where the assessment will occur for the learning objective (outcome). The place of measure may not be a specific student activity or assignment; rather the action occurs when the student is completing the course.

Position of Measure. The term position of measure is sometimes used as the collective term for the measure, metric, and target for the learning objective.

Postgraduate. This term refers to academic programs that occur following an undergraduate degree, e.g., masters and doctorate.

Programme Diet. The list of modules (courses) included within the academic program. Also known as the pathway for a program.

Rubric. The tool used by the course instructor (professor) to evaluate the student's performance relative to a specific learning objective. The rubric is completed by the course instructor and may or may not be associated with a student activity or assignment. Typically, the rubric has three categories: Exceeded, Met, and Not Met. For AoL evaluation, targets are usually set as the percent of students who Exceeded or Met the objective, e.g. 80% of students met or exceeded.

Some institutions have two sets of rubrics, one to generate a student's grade, and a second to evaluate the degree to which a specific learning outcome has been met. The first rubric provides a grade for the assignment whereas the second provides a score because grades and grade point averages are generally not to be used in assessing learning outcomes.

Linking Goals and Objectives

Learning objectives are mapped to the learning goals, as illustrated in Figure 10.1. Typically, a school, college, or department will have 3-6 learning goals and each learning goal will have 2-6 learning objectives. Undergraduate programs may have similar learning goals, but they must have different learning objectives to demonstrate the different levels of study.

Goal 1 – Knowledgeable about the theory and practice of responsible business and management in an international context				Goal 2 – Skilful in the use of professional and managerial techniques and processes		Goal 3 – Prepared for career and personal progression	
1.1 Assess knowledge of contemporary professional practice in business and management informed by theory and research	1.2 Critically apply knowledge of business and management to complex problems in professional practice in order to identify justifiable, sustainable and responsible solutions	1.3 Conduct and critique innovative and/or entrepreneurial project work and research	1.4 Appraise an awareness of the cultural and ethical contexts in which international business operates	2.1 Evaluate effective interpersonal communication skills and the ability to work in multi-cultural teams	2.2 Critique creative and critical thinking skills that involve independence, understanding, justification and the ability to challenge the thinking of self and others	3.1 Critically self-reflect as a means of informing personal development planning	3.2 Critique their personal skills and attitudes for progression to post-graduate contexts including professional work, entrepreneurship and higher level study

Figure 11.1. Relationship of learning objectives with learning goals.

More is not necessarily better when it comes to developing and managing learning goals and learning objectives. Usually, two to four goals are sufficient with no more than five learning objectives per goal.

Evaluation Rubrics

The academic program manager (or AoL Officer) will create a rubric used to evaluate student achievement relative to the learning objective. Typically, the AoL rubric has three categories: Exceeded, Met, and Not Met.

If the academic institution evaluates student results using a rubric based on a 0 to 100-point scale, the AoL-related results may be grouped, as illustrated in Figure 11.2

Criteria	Scales						
	0-39% Standard Not Met 1	40-49% Standard Not Met 2	50-59% Meets Standard 1	60-69% Meets Standard 2	70-79% Exceeds Standard 1	80-89% Exceeds Standard 2	90-100% Exceeds Standard 3
Goal 4 Objective 1 Acquires, interpret and apply knowledge of international business, management and organisational functions	Very poor choice of measures and goes little beyond tables/graphs so completely insufficient in terms of analysis. In terms of understanding, completely insufficient evidence is shown. [0 – 17]	Tells a story but does not convey real understanding, it is insufficient in its lack of linkage between measures and/or poor choice of measures. Does not make use of game data in a sufficient way. [18 – 22]	Adequate explanation which shows reasonable understanding of a basic range of performance measures, not very well linked, at best adequate. [23 – 26]	Good explanation of performance – student clearly understands what happened but misses some key measures and/or links. Good use of data. [27 – 31]	Very good discussion with sound analysis which covers most areas and shows clearly the links between decisions, forecasts and outcomes. Makes very good use of data on competition. [32 – 36]	Excellent discussion of all key measures which shows sound understanding of strategy, decisions, forecasts and outcomes using a wide range of data. [36 – 40]	Outstanding discussion of all key measures which shows sound understanding of strategy, decisions, forecasts and outcomes using an extensive range of data. [41 – 45]

Figure 11.2. Example rubric for a learning objective.

When developing AoL-specific rubrics, try to maintain a similar format and structure to what the course instructors are already using. You can always combine columns to determine your AoL-specific results.

Embedded Assignments

The academic program manager (or AoL Officer) will then embed the AoL evaluations into specific courses (modules) within the academic program. Not every course will have an AoL-specific assignment, and not every AoL evaluation is based on a specific student activity or assignment. The program manager works closely with the course instructor to ensure the person understands the AoL assessment requirements.

Often, the course instructor will evaluate the student relative to the AoL rubric based on the totality of the student's results within the course as opposed to a specific student activity or assignment.

It is important to note that grading should not drive AoL. Although the course instructor may do both student grading and AoL rubric completion, the AoL evaluation must be independent of student grading.

BA (Hons) Accounting			
Module	Measure	Objectives	Goals
FN0371 - Contemporary Issues in Financial Reporting	1.1	1.1 Acquire knowledge of the major areas of accounting and financial management	Goal 1: Knowledgeable about the theory and practice of the major areas of accounting and financial management
	1.2	1.2 Apply their knowledge to accounting and financial management contexts	
	2.2	2.2 Demonstrate effective interpersonal communication skills and the ability to work in a team	Goal 2: Skilful in the use of professional and managerial techniques and processes
	2.3	2.3 Demonstrate critical thinking skills	
	2.4	2.4 Demonstrate problem solving skills	
4.1	4.1 In the context of securing graduate employment demonstrate the skill of self-presentation	Goal 4: Employable as graduates	
NX0314 (FN0347) - Undergraduate Dissertation	1.3	1.3 Conduct contemporary research into accounting and financial management	Goal 1: Knowledgeable about the theory and practice of the major areas of accounting and financial management
	2.1	2.1 Provide evidence of self-reflection as a means of informing personal development planning	Goal 2: Skilful in the use of professional and managerial techniques and processes
SM0381 - Applied Business Ethics	3.1	3.1 Identify an ethical dilemma in a business situation	Goal 3: Aware of ethical issues impacting on business and professional practice
	3.2	3.2 Suggest ethical solutions to this dilemma	
HR0275 - Personal and Organisational Development	4.1	4.1 In the context of securing graduate employment demonstrate the skill of self-presentation	Goal 4: Employable as graduates

Figure 11.3. Example mapping of course embedded assessment into the academic program.

All AoL course embedded assignments are mapped within the academic program to ensure that all program learning objectives are evaluated.

Analyzing and Reporting Results

At the end of the academic year, the program manager downloads and summarizes the results from the course embedded assessments conducted throughout the previous year. Data may be combined with previous academic years, as shown in Figure 11.4, depending on the duration of the academic program so that the totality of student results can be evaluated.

Goal 1 Objective 1 (1.1)								
Undergraduate	Goal 1 Objective 1 (1.1)				2017/18	2016/17	2015/16	2014/15
Programme	Exceeded	Meets	Not Met	Total	Total % Met	Total % Met	Total % Met	Total % Met
Undergraduate BA (Hons) Business with... Suite	190	27	2	219	99%	96%	95%	95%
BA (Hons) Business Management	103	4	0	107	100%	99%		
BA (Hons) Business Studies	23	1	0	24	100%	100%		
BA (Hons) Finance and Investment Management	42	0	2	44	95%	98%		
BA (Hons) Human Resource Management	8	0	1	9	89%	100%		
BA (Hons) International Business Management	50	1	1	52	98%	94%		
BA (Hons) International Business Management with French	1	0	0	1	100%	100%		
BA (Hons) International Business Management with Spanish	11	0	0	11	100%	100%		
BA (Hons) Marketing Management	28	1	1	30	97%	97%		

Figure 11.4. Rubric assessment results for course embedded assessment relative to a program learning objective.

If students from different academic programs take the same core course(s), as is typical in most institutions, the student's academic program will need to be recorded with the rubric evaluation so that the data can be separated and subsequently aggregated by academic degree program.

For objectives that are below target, course instructors and program managers should collaborate regarding the changes needed to improve student results. These efforts are typically noted on the AoL reports to demonstrate to the accreditation and regulatory stakeholders how the academic institution is addressing quality.

Integration of Peregrine's Services with Course Embedded Assessment

Peregrine's assessments, educational courses and programs, and higher education support services can be readily integrated into an academic institution that uses a course embedded assessment methodology for Assurance of Learning.

To ensure a robust learning outcomes process, schools often combine two or more methods to collect learning outcomes data. Some learning outcomes such as oral communication skills, teamwork, or presentation skills may be assessed via an individual activity or group of activities, whereas other learning outcomes such as retained learning in business fundamentals may be assessed via an end-of-program comprehensive assessment.

The following are some examples of Peregrine services used in conjunction with course embedded assessments:

1. Core program evaluation using an end-of-core online assessment for direct measurement. Student scores would be categorized as either Exceeded, Met, or Not Met.
2. End of course knowledge-based exams to directly measure student understanding and knowledge.
3. Use of the Business School Resource Center (BSRC) and its online quiz/exam platform to focus on critical thinking evaluation using short-answer essay questions.
4. Academic Leveling Courses (ALCs) for carousel MBA programs.
5. Write & Cite (W&C) to teach and evaluate student writing proficiency.
6. EvaluSkills to evaluate soft skill competency level.
7. The Learning Outcomes Mapping and Reporting (LOM&R) Utility to manage and report the AoL results to accreditation and regulatory stakeholders.

The degree to which an institution can remove subjectivity when evaluating student learning improves the validity of the data collected. Accurate data enables better decision making when addressing learning outcomes that are below established targets.



Assessment & Application

If your academic institution employs a course embedded assessment methodology to help satisfy its AoL requirements, consider the following questions to help you understand, and perhaps improve, your processes.

1. How many learning goals are you managing? Too many; too few?

2. How many learning objectives do you have per learning goal? Too many; too few?

3. How do you evaluate your learning objectives? Are you using standardized rubrics?

4. Are your course embedded assignments mapped to the learning objectives to ensure that you have complete coverage of the AoL requirements? Any gaps that need to be addressed?

5. What is your process that you use to compile the AoL data from the course embedded assignments? What, if any, improvements are needed to this process to make it more efficient and effective?

6. How are the results from the course embedded assignments evaluated and addressed by both course instructors and academic program managers? What, if any, improvements are needed with this process?

CHAPTER 12:

IMPLEMENTING YOUR ASSESSMENT PLAN: MAPPING LEARNING OUTCOMES

Chapter Objective

Understand and be able to develop both course and program level learning outcomes mapping.

Focus Areas

- All course assignments/activities should map to the Course Learning Outcomes (CLOs).
- Course Learning Outcomes should map to the Program Learning Outcomes (PLOs).
- Courses should map to one or more programs.
- Program Learning Outcomes should map to the Institutional Learning Outcomes (and department and/or college/school/division, if applicable).

Curriculum Mapping

Curriculum mapping is a method to align instruction with desired goals and program outcomes. It can also be used to explore what is taught and how.

The map:

- Documents what is taught and when.
- Reveals gaps in the curriculum.
- Helps design an assessment plan.

Benefits:

- Improves communication about curriculum among faculty.
- Improves program coherence.
- Increases the likelihood that students achieve program level outcomes.
- Encourages reflective practice.

Mapping Course Activities/ Section Learning Outcomes to the Course Learning Outcomes

Many courses are organized by sections, each with specific learning activities and assignments. These should be mapped to the Course Learning Outcomes.

Course Learning Outcomes	Activity Number
1. Analyse what management is and what management does. Understand and apply the concepts of Organizational Behaviour, Human Resource Management, and Operations Management.	1, 2, 8, 9, 10, 11, 12, 13, 14, 15, 18, 19, 20, 21, 23, 24, 25
2. Explain, identify, and distinguish the basic management functions.	3, 4, 5, 6, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25
3. Know, understand, and apply the planning, organising, leading, and controlling functions.	20, 21, 23, 24, 25
4. Identify, explain, and compare major developments in management thought.	2, 7, 10, 11, 14, 15, 18, 19, 20, 21, 23, 24, 25
5. Demonstrate an awareness and use of management plans, policies, procedures, and rules.	16, 17, 23, 24, 25
6. Discuss an overview of Management by Objectives.	6, 16, 17, 23, 24, 25
7. Explain and evaluate the concepts of social responsibility and sustainability.	22, 24, 25

Figure 12.1. Example of mapping course learning outcomes.

Mapping Course Learning Outcomes to Program Learning Outcomes

Many courses are organized by sections, each with specific learning activities and assignments. These should be mapped to the Course Learning Outcomes.

<u>Course Learning Outcomes</u>	<u>Programme Learning Outcomes</u>
1. Understand and apply the concepts of macroeconomics and microeconomics.	1
2. Explain, identify, and distinguish the basic economic functions.	1, 4
3. Know, understand, and apply the concept of an open economy.	1, 4
4. Identify, explain, and compare major developments in economic thought.	1
5. Demonstrate an awareness and use of economics in, policies, procedures, and rules.	1, 4
6. Discuss an overview of economics by type.	1, 3, 4
7. Explain and evaluate Economic Analysis	1, 4

Figure 12.2. Example of mapping program learning outcomes.

Mapping Courses to the Program

All program courses should map to the program. With this mapping, you can also show how the program learning outcomes are introduced, reinforced, mastered, and assessed throughout the academic program.

Courses	Program Learning Outcomes					
	I = Introduced; R = Reinforced; M = Mastered; A = Assessed					
	Understand and Apply Business Knowledge. Effectively apply paradigms and concepts in business domains in order to solve business problems.	Accomplish Effective Communications. Develop written, oral, and presentation skills to communicate effectively across the organization and its stakeholders.	Evaluate Global Perspectives. Demonstrate the ability to integrate diverse and global perspectives to professionally address management issues.	Conduct Critical Thinking. Analyse business problems and situations from a variety of perspectives and arrive at appropriate value-creating decisions.	Implement Entrepreneurial Leadership. Evaluate the economic potential of business opportunities, devise actionable strategies, and communicate recommendations persuasively to achieve goals.	Perform Ethical Reasoning. Understand the role of human values in a business context and justify an action plan to manage an ethical challenge faced or identified by the organization.
MBA5001: Business Communication	I	I	I	I	I	
MBA5002: Principles of Management	I	I	I, R	I, R		I
MBA5003: Accounting, Finance, and Capital Markets	R	R	R	R	I	
MBA5004: Economics	R	R	R	R	R	
MBA5005: Marketing	R	R	R	R		
MBA5006: Global Business	R	R	M	R		R
LEAD5101: Entrepreneurism and Family Business		M		M	R, M	R, M
LEAD5102: Organizational Leadership		M		M	M	M
LEAD5103: Strategic Leadership		M		M	M	M
RSH6010: Research Methods and Statistics	M	M		M		
RSH6020: e-MBA Thesis	A	A	A	A	A	A

Figure 12.3. Example of mapping courses to a program (IRMA map).

It is best practice to have a reasonable number of learning outcomes for a program. If there are more than five or six, the process becomes too cumbersome to manage. It is better to replace learning outcomes with new ones after a few assessment cycles.

Learning Outcomes Mapping Across the Institution

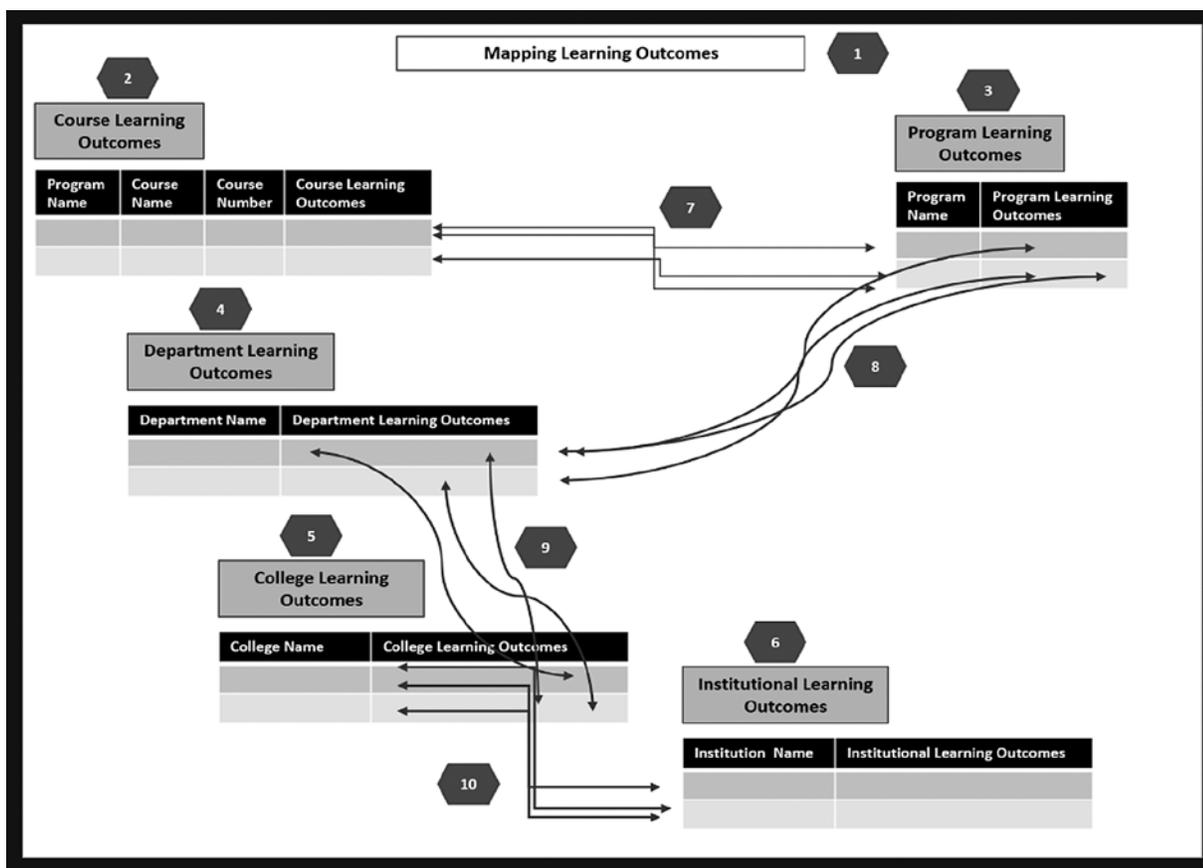


Figure 12.4. Mapping Learning Outcomes.

Assessment Mapping

Assessment mapping is a method to assure program goal mastery in a specific course or point in the curriculum produces outcomes achievement data for the program. It can also be used to explore what is assessed and how. The map:

- Documents what is assessed and when.
- Reveals opportunities to collect both formative and summative assessment data.
- Informs curricular decisions for change such as reinforcing key concepts and modifying course content and instruction.

Benefits:

- Improves communication about assessment among faculty.
- Improves data collection efficiencies.
- Increases the likelihood that evidence and artifacts of assessment are collected and retained for accreditation purposes.
- Encourages alignment between the intended and assessed curriculum.

An Example of Learning Outcomes Assessment

In this example, a process for how mapping outcomes using an Online Educational Course is used to achieve higher education goals, objectives, and learning outcomes.

Step by Step:

1. Course Learning Outcomes are mapped to the Program Learning Outcomes.
2. Both direct and indirect measures are identified.
3. Performance Targets/Criteria (Objectives) are designated.
4. Assessments are conducted.
5. Results are compared to Performance Targets/Criteria (Objectives).
6. Areas for improvement are identified and implemented.
7. The cyclic process is repeated for continuous quality improvement and Assurance of Learning.

Terminology for this Example:

These are the terms we use for the course syllabi, instructor guides, and the program guide for the MBA program.

Term	Description	Examples/Comments
Programme	Comprises the core, required and elective courses that lead to awarding of a degree.	e-MBA programme
Specialization	Series/sub-set of courses.	3 Leadership courses in e-MBA
Course	A unit of teaching on a subject or topic.	MBA5004 (Economics).
Section	A unit of teaching on a sub-topic area. A course is made up of sections.	For the e-MBA programme there are typically 6-8 sections per course.
Activity	Learning activities students undertake.	Typically, 2-4 activities per section.
Assignment	Specific work product submitted by students.	There is one assignment for each activity, e.g., a discussion board post.
Unit	A 'parcel' of instructional content.	Online Peregrine training. Completing a unit is an example of an activity.

Program Learning Outcomes

These are the program learning outcomes from our e-MBA service.

The e-MBA service includes the content and curriculum for schools to offer an online/blended MBA program that is branded and delivered by the academic institution.

The e-MBA program is 11 courses, 36-credit hours (US), has a business leadership concentration, and includes an MBA thesis project.

PROGRAM | LEARNING OUTCOMES:

The program-level learning outcomes are as follows:

1. **Understand and Apply Business Knowledge.** Effectively apply paradigms and concepts in business domains in order to solve business problems.
2. **Accomplish Effective Communications.** Develop written, oral, and presentation skills to communicate effectively across the organization and its stakeholders.
3. **Evaluate Global Perspectives.** Demonstrate the ability to integrate diverse and global perspectives to professionally address management issues.
4. **Conduct Critical Thinking.** Analyse business problems and situations from a variety of perspectives and arrive at appropriate value-creating decisions.
5. **Implement Entrepreneurial Leadership.** Evaluate the economic potential of business opportunities, devise actionable strategies, and communicate recommendations persuasively to achieve goals.
6. **Perform Ethical Reasoning.** Understand the role of human values in a business context and justify an action plan to manage an ethical challenge faced or identified by the organization.

Figure 12.5. e-MBA program learning outcomes.

Example Program Learning Outcome

For purposes of this example, we are going to focus on one Program Learning Outcome and take it through the process.

Note: All PLOs should go through a similar process for Assurance of Learning.

- Mapping the Curriculum to the Program Learning Outcome.
- PLO#3 is mapped with the curriculum to understand where the PLO is Introduced (I), Reinforced (R), Mastered (M), and Assessed (A).
- If there are gaps, then the curriculum may need to be adjusted to close any gaps.

Courses	Evaluate Global Perspectives. Demonstrate the ability to integrate diverse and global perspectives to professionally address management issues.
MBA5001: Business Communication	I
MBA5002: Principles of Management	I
MBA5003: Accounting, Finance, and Capital Markets	R
MBA5004: Economics	R
MBA5005: Marketing	R
MBA5006: Global Business	M
LEAD5101: Entrepreneurism and Family Business	
LEAD5102: Organizational Leadership	
LEAD5103: Strategic Leadership	
RSH6010: Research Methods and Statistics	
RSH6020: e-MBA Thesis	A

Mapping the CLOs to the PLOs and Seeing the Related Course Activities

If the course activities/assignments are mapped to the CLOs, those specific activities related to the PLO can be understood.

Some of these activities are designated as signature activities for the PLO and should not be changed without careful consideration of the implications of that change on the PLO.

Figure 12.6. Example, PLO#3 is mapped to the curriculum.

Course Learning Outcomes:

Course Learning Outcomes	Activity Number	Programme Learning Outcomes
1. Analyse what management is and what management does. Understand and apply the concepts of Organizational Behaviour, Human Resource Management, and Operations Management.	1, 2, 8, 9, 10, 11, 12, 13, 14, 15, 18, 19, 20, 21, 23, 24, 25	1, 4
2. Explain, identify, and distinguish the basic management functions.	3, 4, 5, 6, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25	1
3. Know, understand, and apply the planning, organising, leading, and controlling functions.	20, 21, 23, 24, 25	1, 4
4. Identify, explain, and compare major developments in management thought.	2, 7, 10, 11, 14, 15, 18, 19, 20, 21, 23, 24, 25	4
5. Demonstrate an awareness and use of management plans, policies, procedures, and rules.	16, 17, 23, 24, 25	1
6. Discuss an overview of Management by Objectives.	6, 16, 17, 23, 24, 25	4
7. Explain and evaluate the concepts of social responsibility and sustainability.	22, 24, 25	4

Figure 12.7. The Course Learning Outcomes (CLOs) are mapped to the PLOs.

Look at all courses within the program for where there is linkage with the PLO.

RSH6020 [MBA Thesis Project] Course Learning Outcomes			MBA5001 [Business Communications] Course Learning Outcomes		
Course Learning Outcomes	Activity Number	Program Learning Outcomes	Course Learning Outcomes	Activity Number	Programme Learning Outcomes
1. Compare and Contrast different systems of quality management that are used to evaluate organizational performance and make recommendations regarding the utility of quality systems for specific organizations.	1, 2, 3, 4	3	1. Analyse communication situations and audiences to make choices about the most effective and efficient way to communicate and deliver messages.	1, 2, 3, 18, 20, 21, 22, 23, 24, 25, 26, 27	2, 3
2. Analyse an organization relative to applicability for Baldrige analysis.	4, 5, 6, 7, 8, 9	3, 4	2. Apply technological tools and methods to conduct library and on-line research; use the results of the research to complete written and oral reports.	4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 26, 27	1, 2
3. Evaluate organizational leadership.	10, 11, 12	4, 5	3. Construct effective business presentations in contexts that may require prepared, impromptu, or extemporaneous constructs.	13, 14, 15, 22	1, 2, 3
4. Evaluate organizational strategy.	13, 14, 15	4, 5	4. Comprehend feedback, interpret areas of strengths and weakness, and translate to action that results in improved communication.	20, 21, 22, 23, 24, 25, 26, 27	2
5. Evaluate an organization's customers.	16, 17, 18	4, 5	5. Produce business documents that are grammatically correct and use appropriate style.	9, 10, 11, 12, 26, 27	1, 2
6. Evaluate an organization's measurement, analysis, and knowledge management processes.	19, 20, 21	4, 5	6. Demonstrate effective interpersonal communication skills.	15, 24, 25, 26, 27	2
7. Evaluate an organization's workforce.	22, 23, 24	4, 5, 6	7. Use communication technology effectively and appropriately.	10, 11, 12, 13, 15, 16, 17, 18, 19, 21, 22	2, 3
8. Evaluate the operations of an organization.	25, 26, 27	4, 5			
9. Evaluate the results of an organization.	28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42	4, 5			
10. Conduct and present an organizational analysis.	43, 44, 45	1, 2, 3, 4, 5, 6			
11. Demonstrate knowledge of key business concepts and terms.	46	1, 3			
12. Create new knowledge regarding quality management and organizational analysis.	47	6			

Figure 12.8. In this example, PLO#3 is mapped to three courses within the program.

Mapping the Exam Topics and Subjects to the PLOs

The Global Business Education (GBE) assessment service includes 12 topics.

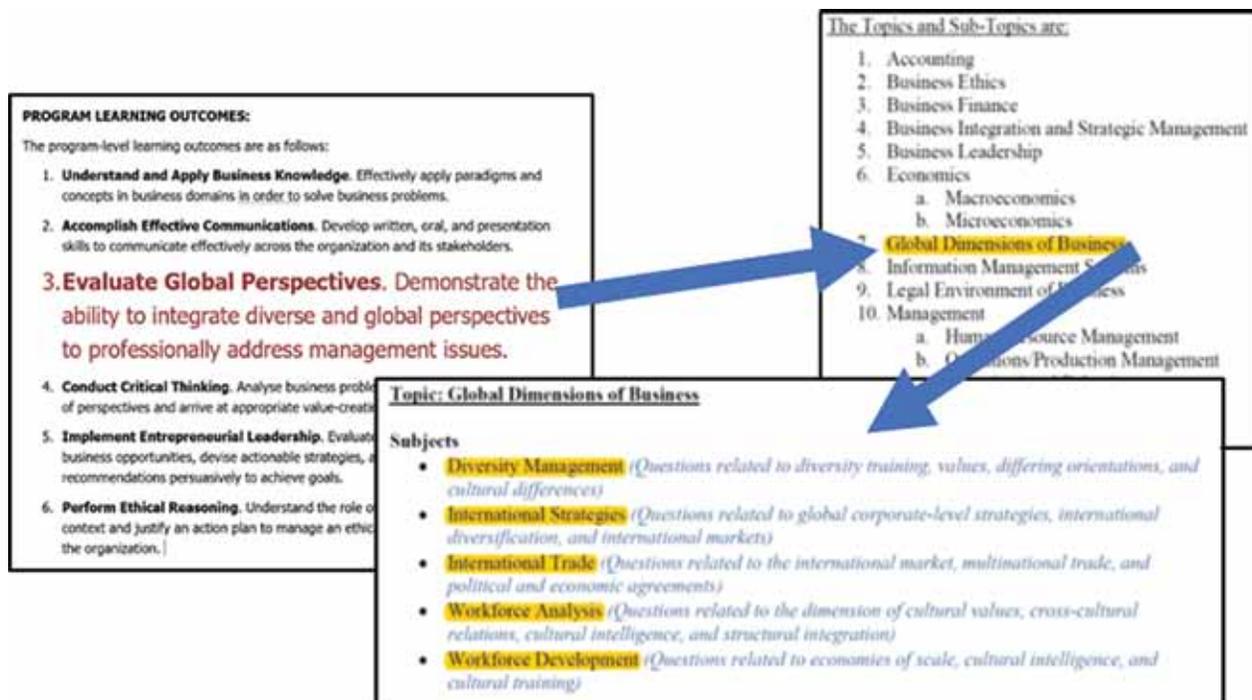


Figure 12.9. The exam is customized to align (map) the exam topics to the PLOs.

Building the Assessment Plan

PLO #3. Evaluate Global Perspectives. Demonstrate the ability to integrate diverse and global perspectives to professionally address management issues.	
<i>Assessment Instruments for Direct Measures</i>	<i>Performance Targets/Criteria (Objectives)</i>
Inbound Exam in MBA5001 Mid-point Exam in MBA5006 Outbound Exam in RSH6020	50% positive change or higher from the Inbound, to the Mid-point, to the Outbound Exams for the Global Dimensions of Business topic. 80 th Percentile or higher on the Outbound Exam for the Global Dimensions of Business topic.
MBA Thesis Project	On the project evaluation rubric, the performance rating of all graduating students in the MBA program will be 4 or higher (out of a possible 5) representing "exemplary" on each PLO-related evaluation criterion.
<i>Assessment Instruments for Indirect Measures</i>	<i>Performance Targets/Criteria (Objectives)</i>
MBA Exit Survey	On the exit survey administered with the Outbound Exam, mean scores for PLO-related survey items will be 3.0 or higher, which would indicate a "satisfactory" or higher level on knowledge of the subjects.
Course Evaluations	On the course evaluations for MBA5006, at least 80% of the students will indicate that the learning in the course contributed to achieving the PLO will be 2 or higher (out of a possible 3), representing "significant contribution."

The following is a simple readiness checklist for implementing your assessment plan:

1. Outcomes Assessment Maps are completed, vetted, and approved by faculty.
2. Common assessments are used across assessed courses with multiple sections.
3. Program assessment leads are established.
4. A faculty evaluation process is defined that includes both faculty analysis of data and the communication of key outcome results.
5. Closing the loop strategies are clear and include successive data or information that lead to continuous improvements in teaching and learning.
6. An annual assessment calendar with key assessment activities is published.
7. Assessment results (minimum 3 to 5 data points) and analyses are communicated, and data documentation are archived routinely.
8. Students and external stakeholders are involved.



Assessment & Application

Consider your HEI and your areas of responsibility:

Map your courses across your program learning outcomes to illustrate outcomes proficiency levels (Introductory, Reinforcement, and Mastery).

MAPPING TO THE PROGRAM LEARNING OUTCOMES						
	PLO-1	PLO-2	PLO-3	PLO-4	PLO-5	PLO-6
Course 1						
Course 2						
Course 3						
Course 4						
Course 5						
Course 6						

Next, map your learning outcomes across the institutional levels.

MAPPING TO THE INSTITUTIONAL LEARNING OUTCOMES						
	ILO-1	ILO-2	ILO-3	ILO-4	ILO-5	ILO-6
Course 1						
Course 2						
Course 3						
Course 4						
Course 5						
Course 6						

Next, map your learning outcomes across the organizational levels.

MAPPING TO THE COLLEGE/SCHOOL/DIVISION LEARNING OUTCOMES						
	LO-1	LO-2	LO-3	LO-4	LO-5	LO-6
Course 1						
Course 2						
Course 3						
Course 4						
Course 5						
Course 6						

At a minimum, you should map your courses to your program learning outcomes. Ideally, your program learning outcomes should also map to your institutional learning outcomes and to your department and/or college/school/division as they exist within your HEI organizational structure.



SECTION **III**

EXECUTING AN ASSURANCE OF LEARNING PROCESS

EXECUTING AN ASSURANCE OF LEARNING PROCESS

Section III introduces strategies for implementing an Assurance of Learning process.

Chapter 13 outlines specific steps for integrating Peregrine exams into your assessment process.

In Chapters 14 and 15, techniques for evaluating results and using analyses for academic decision-making and change management are summarized.

CHAPTER 13: INTEGRATING PEREGRINE EXAMS INTO YOUR ASSESSMENT PROCESS

Chapter Objective

Using Peregrine's assessments to evaluate 'program learning outcomes' developed in a learning outcomes plan that includes established performance targets/benchmarks.

Focus Areas

- Setting up PLO's and an assessment plan.
- Using Inbound and Outbound assessments.
- Comparing and analyzing results.
- Using reports to understand gaps in student learning.

Inbound, Mid-point, & Outbound Exam Results

The Assessment Plan specified an analysis of the percent change from the Inbound, to the Mid-point, to the Outbound Exam for the Global Dimensions of Business topic. Target is $\geq 50\%$

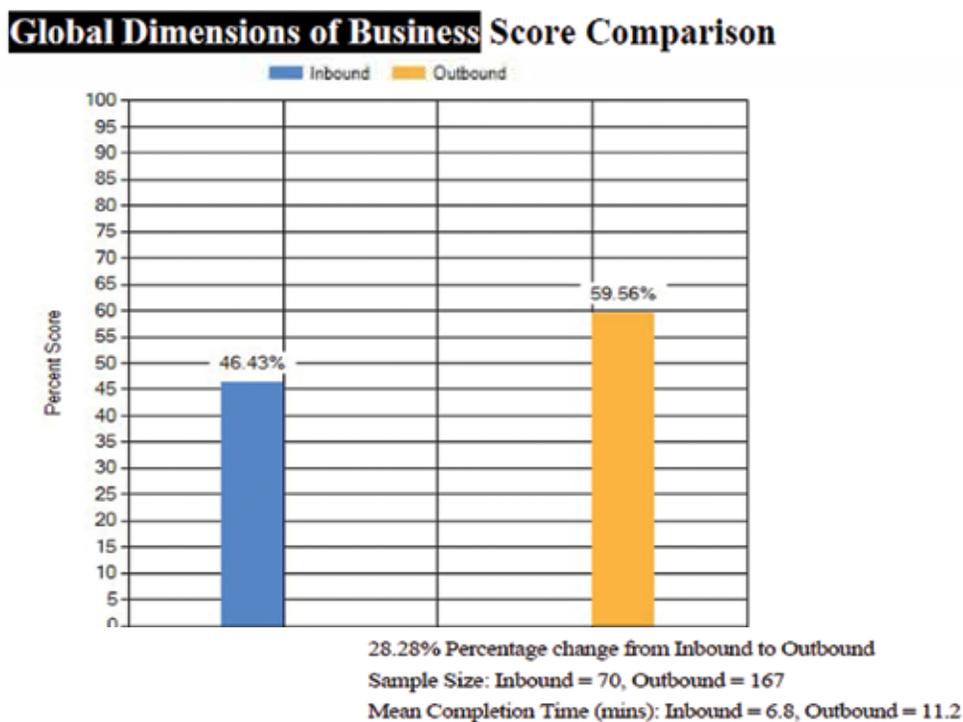


Figure 13.1. Example of Inbound, Mid-point, and Outbound Exam results.

Outbound Exam Analysis

Frequency of Questions Offered on *Outbound Exams*

Global Dimensions of Business	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Foreign Direct Investment and Trade	333	59.46%	149798	56.63%	61	50.00%	55.00%	60.66%	67.24%
International Corporate Strategies	314	62.10%	170104	50.82%	86	43.86%	50.00%	54.84%	61.11%
International Governance and Regulation	344	56.69%	118889	52.34%	65	44.90%	50.89%	56.52%	64.15%
International Patents and Protections	348	61.78%	113227	55.97%	68	47.92%	54.35%	60.47%	68.18%
Multinational Culture	330	57.88%	115812	48.87%	81	41.67%	47.76%	52.83%	59.57%
Summary	1669	59.56%	667830	52.98%	76	46.80%	51.67%	56.36%	62.21%

Frequency correct values in this table are rounded for easier display. To see the raw value please select the Excel version of this report.

Figure 13.2. Example of frequency of questions offered on Outbound Exams.

Lower than desired percentile ranks for some subjects suggests opportunities for improvements with the instruction.

The Assessment Plan specified an analysis of the percentile ranks for the Global Dimensions of Business topic. Target is >=85%.

Further analysis of the Outbound Exam results for PLO#3 based on the topic's subject-level scores compared against the selected aggregate provides indications regarding the strengths and opportunities for improvement. Course professors can use this information to make any course-level changes that could affect the PLO.

Global Dimensions of Business Subject Score Comparison *Outbound Exam*

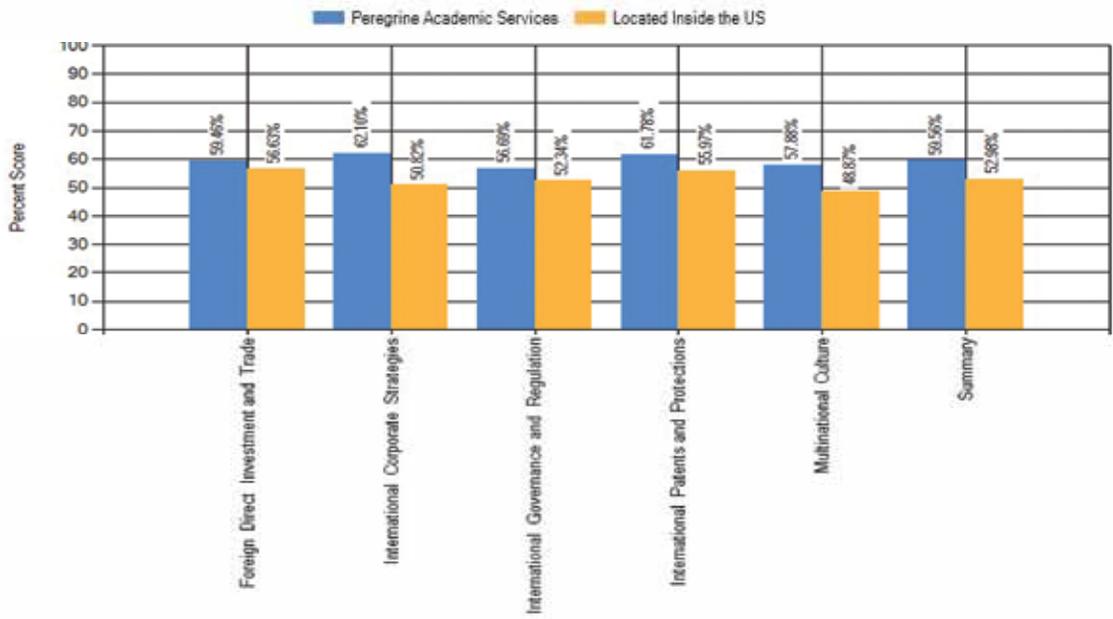
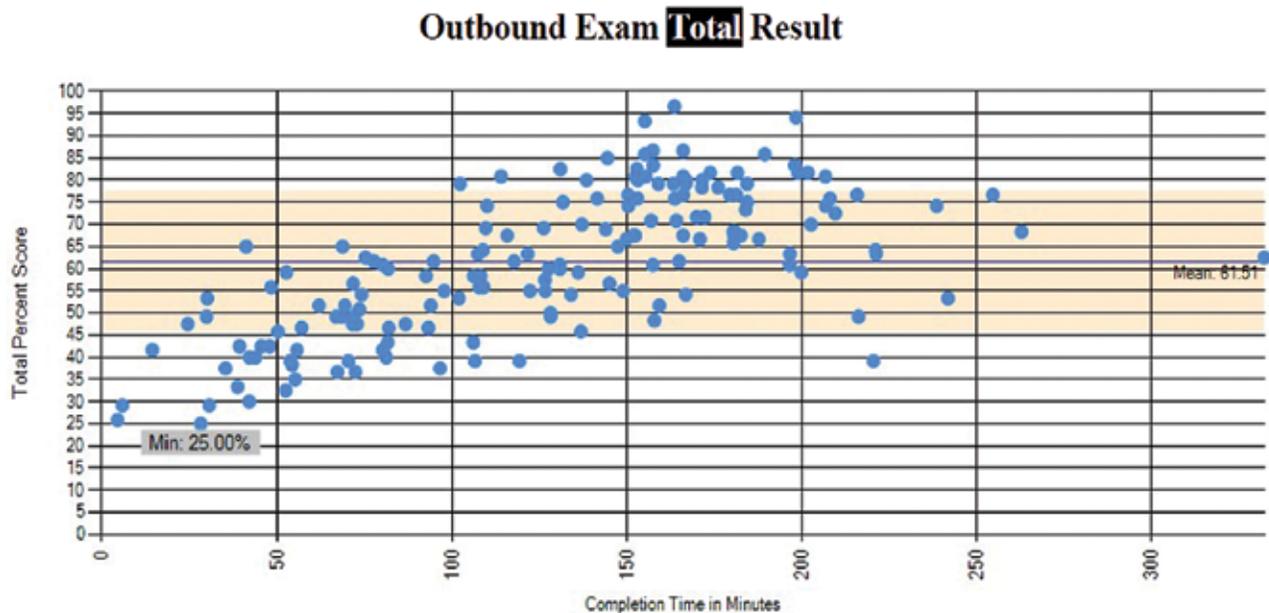


Figure 13.3. Example of a subject score comparison of an Outbound Exam.

Evaluating Student Effort

If there are any concerns if the students are putting forth their best effort on the exam, evaluate the exam completion times. We recommend grading the Outbound Exam by at least 10% of the course grade.

There are many ways to encourage students to put forth their best effort on exams in addition to assigning a grade to the exam. Identify what is meaningful to students (tablet, gift card, etc.) and leverage that motivation or create a competition.



Sample Size: 167

Mean Completion Time for this Topic (mins): Outbound = 128.67

Mean Score: 61.51%, Max Score: 96.67%, Min Score: 25.00%

Standard Deviation: 15.90

* Results are sorted by number of minutes taken to complete the exam.

Figure 13.4. Example of a scatter graph of the results of an exam.

Longitudinal Analysis of the PLO

It is helpful to understand trends over time and to use these trends to evaluate the effectiveness of any changes made to the program based on the Assurance of Learning evaluations.

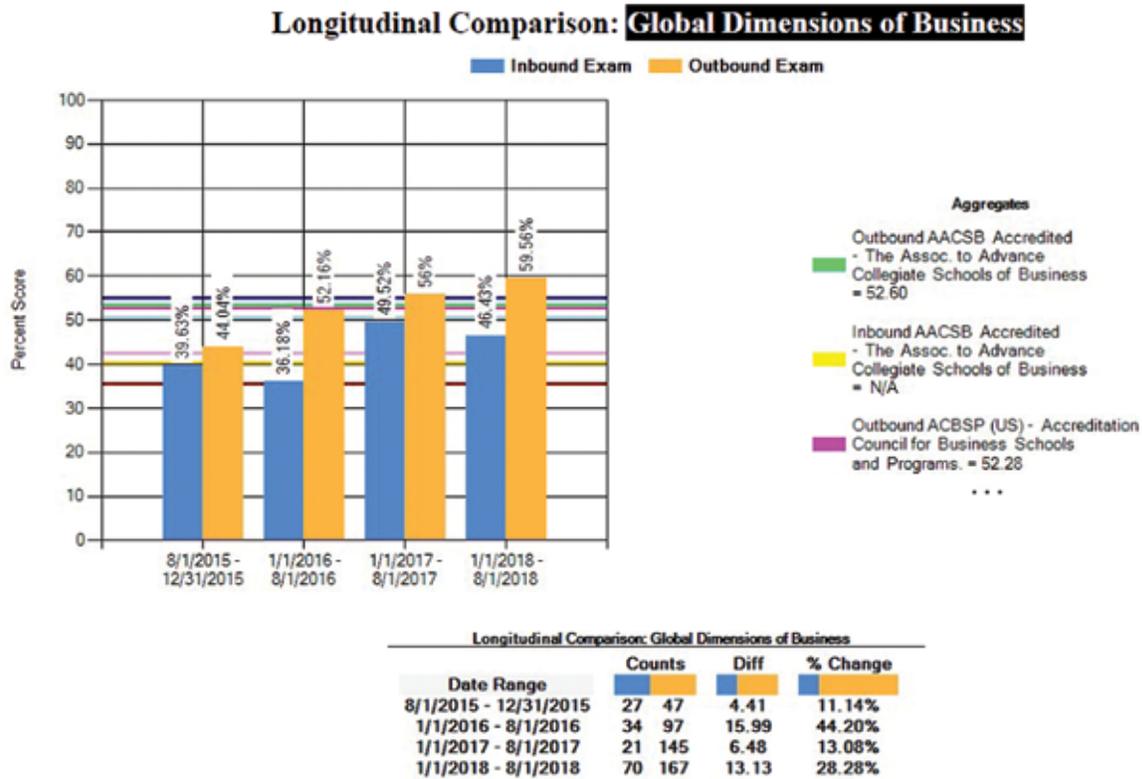


Figure 13.5. Example of exam result trends.

Identifying Potential Knowledge Gaps with PLO#3

With the Response Distractors Report, you can identify potential knowledge gaps for each PLO. The report provides information as to why students answer questions incorrectly. In this example (Figure 13.6), students made concept-based errors at a higher frequency (and statistically significant) than the students in the aggregate pool of comparison.

Topic	Subject	Calculation-based Error		Concept-based Error		Conclusion-based Error		Fact-based Error		Interpretation-based Error			
		School % Correct	Aggregate % Correct	School % Incorrect	Aggregate % Incorrect	School % Incorrect	Aggregate % Incorrect	School % Incorrect	Aggregate % Incorrect	School % Incorrect	Aggregate % Incorrect		
Global Dimensions of Business		46.51 %	47.87 %	0.00 %	0.00 %	22.17 %	16.89 %	0.00 %	0.31 %	3.71 %	3.30 %	27.62 %	31.64 %
	Foreign Direct Investment and Trade	54.56 %	54.42 %	0.00 %	0.00 %	20.10 %	13.41 %	0.00 %	0.00 %	5.87 %	4.22 %	19.47 %	27.95 %
	International Corporate Strategies	43.78 %	43.60 %	0.00 %	0.00 %	25.35 %	18.50 %	0.00 %	0.00 %	0.00 %	0.00 %	30.88 %	37.89 %
	International Governance and Regulation	44.46 %	50.26 %	0.00 %	0.00 %	24.79 %	17.31 %	0.00 %	0.00 %	3.40 %	5.71 %	27.35 %	26.72 %
	International Patents and Protections	46.08 %	47.29 %	0.00 %	0.00 %	12.40 %	11.60 %	0.00 %	0.00 %	6.94 %	5.60 %	34.58 %	35.50 %
	Multinational Culture	44.31 %	44.30 %	0.00 %	0.00 %	28.57 %	26.53 %	0.00 %	0.00 %	4.11 %	3.83 %	23.01 %	25.35 %

Figure 13.6. Example of a Response Distractors Report that indicates a potential knowledge gap.

Student Exit Survey (Indirect Measure)



Figure 13.7. Analyze those survey items that are mapped to PLO#3. Target is ≥ 3.0 .

Summarizing the Results

PLO #3. Evaluate Global Perspectives. Demonstrate the ability to integrate diverse and global perspectives to professionally address management issues.		
Assessment Instruments for Direct Measures	<i>Performance Targets/Criteria (Objectives)</i>	<i>Results</i>
Inbound Exam in MBA5001 Mid-point Exam in MBA5006 Outbound Exam in RSH6020	25% positive change or higher from the Inbound, to the Mid-point, to the Outbound Exams for the Global Dimensions of Business topic. 80 th Percentile or higher on the Outbound Exam for the Global Dimensions of Business topic.	27.33% In-Mid 35.63% M-Out 72.70% In-Out 87th Percentile
MBA Thesis Project	On the project evaluation rubric, the performance rating of all graduating students in the MBA program will be 4 or higher (out of a possible 5) representing "exemplary" on each PLO-related evaluation criterion.	
Assessment Instruments for Indirect Measures	<i>Performance Targets/Criteria (Objectives)</i>	<i>Results</i>
MBA Exit Survey	On the exit survey administered with the Outbound Exam, mean scores for PLO-related survey items will be 3.0 or higher, which would indicate a "satisfactory" or higher level on knowledge of the subjects.	Mean is 3.18
Course Evaluations	On the course evaluations for MBA5006, at least 80% of the students will indicate that the learning in the course contributed to achieving the PLO will be 2 or higher (out of a possible 3), representing "significant contribution."	

Evaluation of PLO#3

Although we are at or above our direct and indirect measurement targets, the analysis indicates an opportunity to improve how we are teaching the following concepts specific to PLO#3:

- Foreign Direct Investment & Trade.
- International Corporate Strategies.
- International Governance and Regulation.

Next year when we test again, we will see if the changes we made had the desired effect.

Assessment & Application

Consider your HEI and your areas of responsibility:

- *Build the assessment management tables for each of your academic programs.*
- *Identify the direct and indirect measures for each PLO.*
- *Identify the specific targets you would like to obtain.*

PLO #1: _____	
Assessment Instruments for Direct Measures	Performance Targets/Criteria (Objectives)
Assessment Instruments for Indirect Measures	Performance Targets/Criteria (Objectives)

Figure 13.8 Assessment Management Table

Continue building your assessment management tables for each of your program's learning outcomes.

CHAPTER 14: ANALYZING THE RESULTS

Chapter Objective

To review how program learning outcome results can be analyzed against established performance criteria or benchmarks.

Focus Areas

- Using assessment for Learning Outcomes evaluation.
- Demonstrating success in meeting learning and operational objectives.
- Longitudinal analysis.

Inbound, Mid-point, & Outbound Exam Results

The Assessment Plan specified an analysis of the percent change from the Inbound, to the Mid-point, to the Outbound Exam for the Global Dimensions of Business topic. Target is $\geq 50\%$



Example of an Assessment Analysis of a Program Learning Outcome

PLO #3. EVALUATE GLOBAL PERSPECTIVES. DEMONSTRATE THE ABILITY TO INTEGRATE DIVERSE AND GLOBAL PERSPECTIVES TO PROFESSIONALLY ADDRESS MANAGEMENT ISSUES.		
Assessment Instruments for Direct Measures	Performance Targets/Criteria (Objectives)	Results
Inbound Exam in MBA5001 Mid-point Exam in MBA5006 Outbound Exam in RSH6020	50% positive change or higher from the Inbound, to the Mid-point, to the Outbound exams for the Global Dimensions of Business topic. 80 th Percentile or higher on the Outbound Exam for the Global Dimensions of Business topic.	27.33% In-Mid 35.63% M-Out 72.70% In-Out 87 th Percentile
MBA Thesis Project	On the project evaluation rubric, the performance rating of all graduating students in the MBA program will be 4 or higher (out of a possible 5) representing “exemplary” on each PLO-related evaluation criterion.	
Assessment Instruments for Indirect Measures	Performance Targets/Criteria (Objectives)	Results
MBA Exit Survey	On the exit survey administered with the Outbound Exam, mean scores for PLO-related survey items will be 3.0 or higher, which would indicate a “satisfactory” or higher level on knowledge of the subjects.	
Course Evaluations	On the course evaluations for MBA5006, at least 80% of the students will indicate that the learning in the course contributed to achieving the PLO will be 2 or higher (out of a possible 3), representing “significant contribution”.	

Accreditors are most interested in how institutions and programs are using student assessment data to inform academic decisions and make curricular changes. Summarizing the results and providing faculty analyses not only demonstrates a strong commitment to the AoL process but builds a stronger culture around assessment. Be sure to involve the appropriate faculty, staff, and administrators in the process!



Assessment & Application

Consider your HEI and your areas of responsibility:

Explain how learning outcomes are measured and reported?

What areas do you believe need improvement in the measuring and reporting of your learning outcomes?

CHAPTER 15:

IDENTIFYING AND MAKING THE CHANGES AND IMPROVEMENTS: ACADEMIC CHANGE MANAGEMENT

Chapter Objective

Understanding change management and how it applies to academic program improvements.

Focus Areas

- Programmatic review involves change management, specifically, how and when are changes and updates made to academic programs?
- Typically, academic programs are reviewed every 4 or 5 years, which allows time for research, data collection, and trend analysis.

What is Academic Change Management?

- Academic institutions are organizations that at times require changes in the way in which they deliver their services, just as corporations do.
- Change management is the process in which an organization implements any type of organizational change.
- Change management also focuses on the psychology of change and the problems that can be faced when engaging in an organizational change.

Communications Considerations

- In successful change management endeavors, individuals respond well to open forms of communication where they are given the reasoning behind a decision and the data to back up those findings.
- Open communication is a vital component to the successful implementation of organizational change, especially in academia, as a significant number of the organization's members are knowledge workers and may not respond to typical incentives.



SECTION **IV**

TOOLS AND TECHNIQUES FOR ASSURANCE OF LEARNING

TOOLS AND TECHNIQUES FOR ASSURANCE OF LEARNING

Section IV connects the Assurance of Learning process with Peregrine's assessment services for addressing knowledge-based and critical thinking outcomes evaluation.

Chapter 16 addresses choosing the right tools by establishing metrics and measures aligned with PAS proprietary reporting system.

In Chapter 17, a pragmatic approach to using assessment reports for learning outcomes evaluation is outlined while in Chapters 18 and 19 respectively, an outlook on the integration of educational programs and courses, as well as overall Peregrine service alignment with Assurance of Learning, is discussed to bridge the concepts of AoL with application and uses of Peregrine's services.

Chapter 20 includes a process for mapping learning outcomes to produce an assessment plan report and an assessment results report based on Peregrine's Learning Outcomes Mapping & Reporting (LOM&R) Utility.

CHAPTER 16: THE INBOUND/MID-POINT/ OUTBOUND ASSESSMENT CONSTRUCT

Chapter Objective

Understand the value of longitudinal assessment and how it's developed.

Focus Areas

- The Inbound Exam is a programmatic pre-test used to establish the baseline for new and transfer students.
- A Mid-Point Exam is administered at the end of the program's core courses to measure the mastery of key concepts and skills.
- The Outbound Exam is a programmatic post-test, administered in the last course before graduation. It is used to measure the integrated/retained knowledge and to determine if the basic concepts and skills have been reinforced and further developed in the advanced courses.
- To compare results between the different exams, the same instrumentation is used.
- Percent change can be used as a direct measure.

The Inbound Exam:

- Establishes a baseline knowledge level from which change as a consequence of the academic experience can be understood.
- Includes the topics and subjects mapped to the program learning outcomes.
- Is administered to students early in the program.
- Is useful for both new students and transfer students.
- For graduate programs, the Inbound Exam can also be used to help guide placement and potential prerequisites.

The Mid-Point Exam:

- Is administered at the end of the programmatic core to measure the mastery of key concepts and basic skills.
- Is used to understand if specific students are weak in key areas and subsequently guide any necessary remediation.
- Includes the same topics and subjects as the Inbound Exam, which is mapped to the program learning outcomes.

The Outbound Exam:

- Is a programmatic post-test, which is administered in the last course before graduation.
- Is used to measure the integrated/retained knowledge.
- Can determine if the basic concepts and skills have been reinforced and further developed in the advanced courses.
- Results are compared with results from other similar schools for academic benchmarking.
- Results are compared to the Inbound and Mid-point Exams to understand knowledge gained.

Applying the Construct

The Inbound, Mid-point, and Outbound Exam results are displayed side-by-side to see and understand student knowledge levels at different points of time.

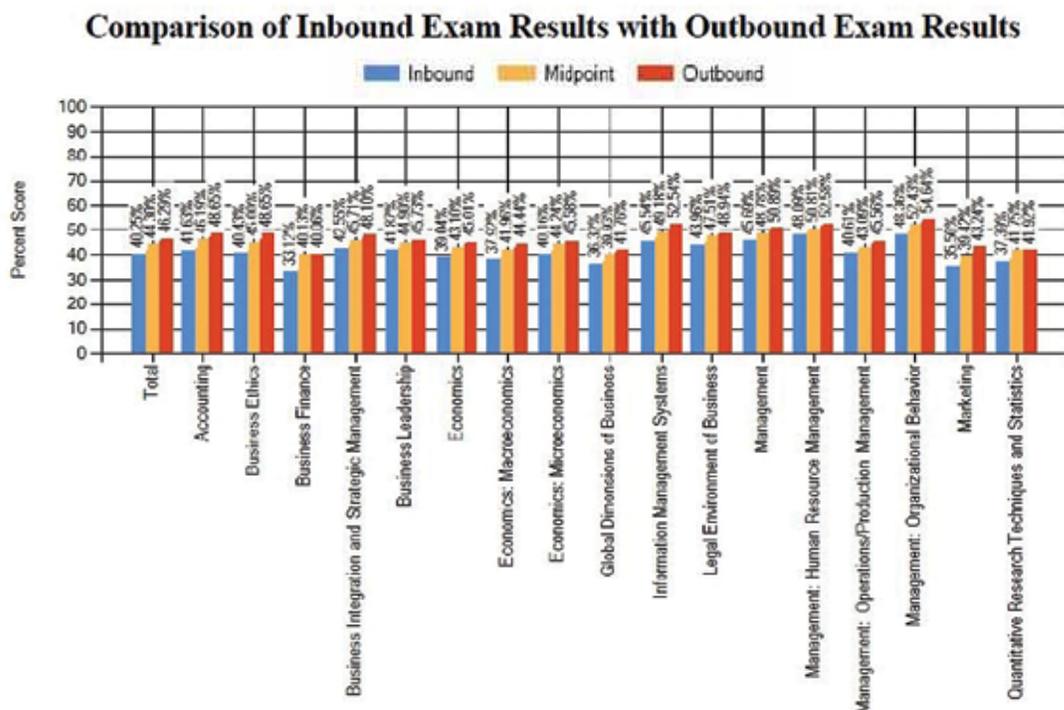


Figure 16.1. Example of comparison of Inbound, Midpoint, and Outbound Exam results.

Understanding the Construct

The Inbound, Mid-point, and Outbound Exam scores are used to evaluate the change in knowledge levels that occur as a consequence of the higher education experience.

This is a direct measure of student knowledge levels.

Understanding Changes

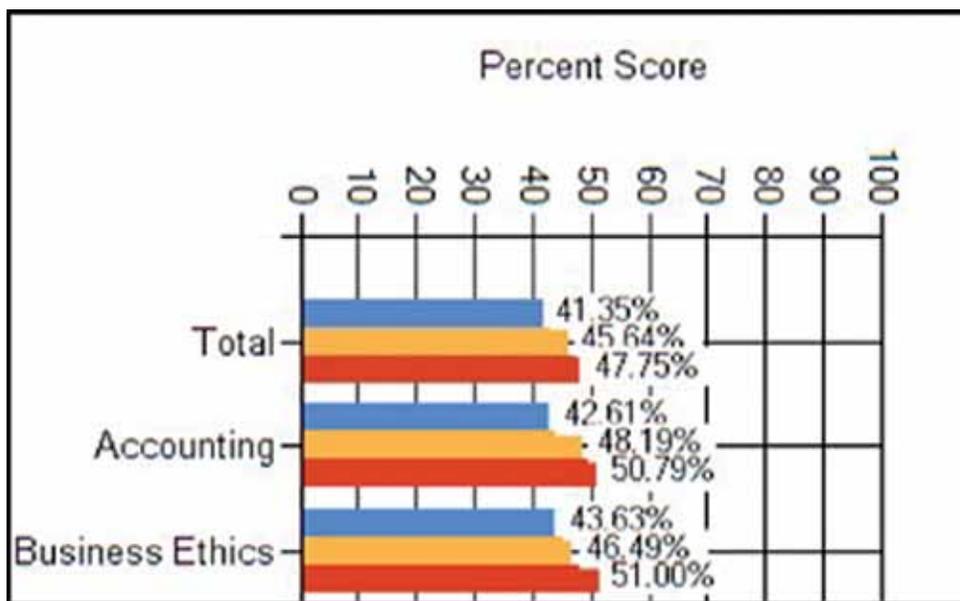


Figure 16.2. This example is for the topic of Business Finance, which was included on an undergraduate business program exam.

Specific assessment targets can include the desired percent change (knowledge gain).

Pairwise Reporting

So long as the academic program has not changed significantly, Inbound, Mid-point, and Outbound Exams can be administered to the different student groups at the same time and the results compared.

Once individual students matriculate through the program and complete the exams, then pairwise reporting matches up the student's Inbound, Mid-point, and Outbound Exam scores.

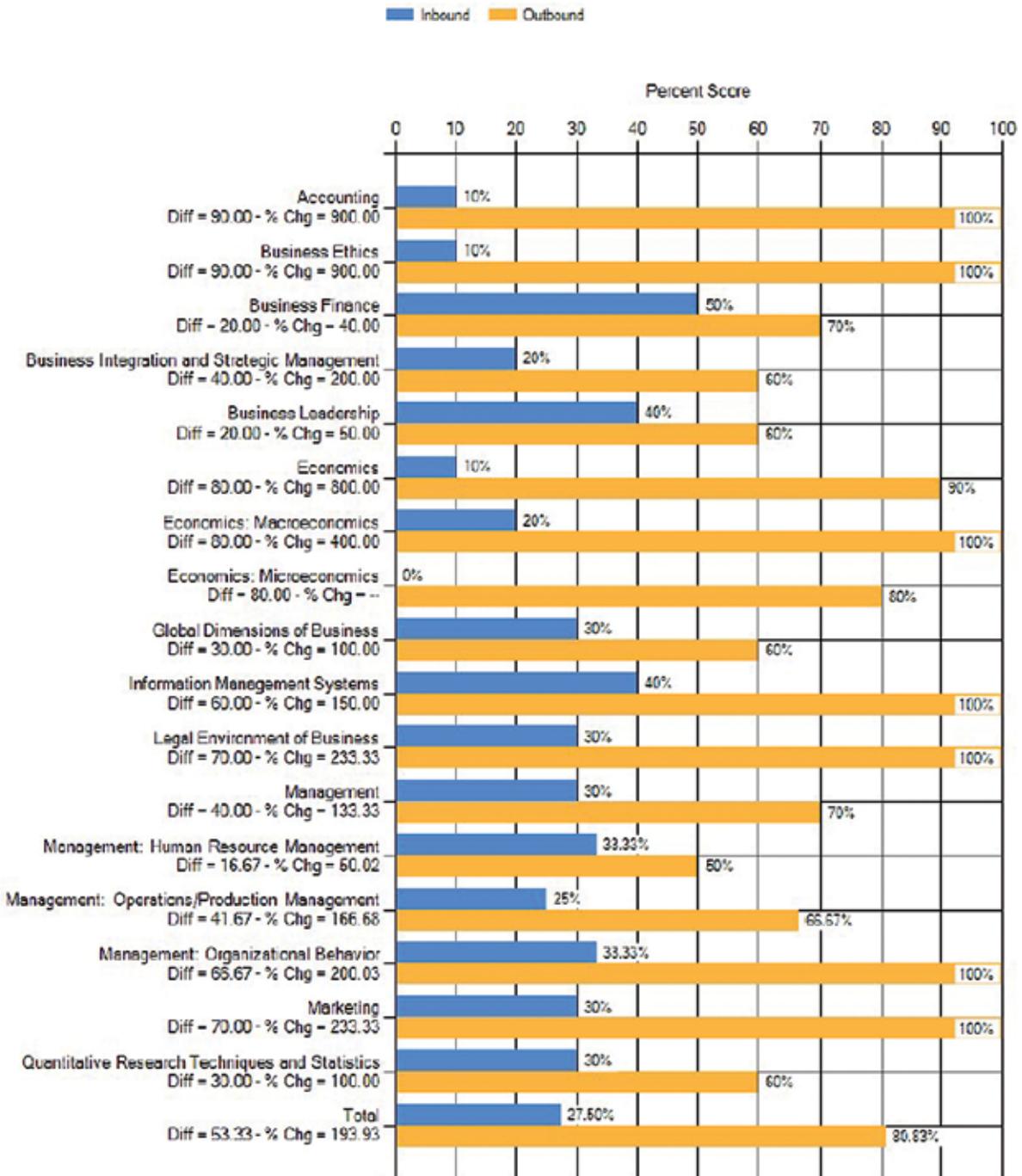


Figure 16.3. Example of a pairwise report.



Assessment & Application

Consider your HEI and your areas of responsibility:

Where in the curriculum could the Inbound Exam be inserted?

Where in the curriculum could the Mid-Point Exam be inserted?

Where should an Outbound Exam(s) be inserted? Keep in mind that you should have at least one direct measure of learning outcomes for each academic program.

CHAPTER 17:

CHOOSING THE RIGHT TOOLS: METRICS, MEASURES, & TARGETS

Chapter Objective

Understand the difference between a metric, measure, and target and how they are used to develop an assessment rubric.

Focus Areas

- Presentation of a metric, measure and target.
- Developing an assessment rubric.
- Integrating Inbound, Mid-point, and Outbound assessments in an assessment rubric.

Evaluating Learning Outcomes

- Once the learning outcomes have been mapped to the curriculum, the learning outcome itself must be assessed.
- Such assessment of learning outcomes is best understood by considering the specific metrics, measures, and targets (performance objectives) for each learning outcome.
- The following slides illustrate how learning outcomes can be assessed using our assessment and/or educational courses and programs.

Metrics, Measures, & Targets Defined

Metrics

The form of measurement that will be used for the outcome evaluation. This can be either quantitative (e. g., surveys or exams) or qualitative (e. g., observation, document analysis, interviews, etc.).

Measures

The specific result from the metric that is used to evaluate the learning outcome, e.g., GPS, exam scores, percentile rank, percent change, etc. This is also known as a Key Performance Indicator (KPI).

Targets (Performance Objectives)

The desire level of performance relative to the measure for the learning outcome is based on the use of the metric.

The Inbound/Mid-Point/Outbound Assessment Construct

Inbound: To be used to measure the base knowledge/skill of a student on which a program/institution can build.

Midpoint: To be used to measure the student's progress at a point when the students are moving into their areas of specialization.

Outbound: To be used to measure and evaluate the change in knowledge levels that occur as a consequence of the higher education experience.

Examples of Measures and Targets using Peregrine's Service Reports

Metric:	Individual Results Report
Examples of Measure(s):	<ul style="list-style-type: none"> • Total Score (Percent) • Topic Scores (Percent) • Subject Scores (Percent)
Examples of Target(s):	<ul style="list-style-type: none"> • $\geq 60\%$ • 80% of the students or more score at least a 60% or higher for specific topics, subjects, and/or the total score

Metric:	Pairwise Reports
Examples of Measure(s):	<ul style="list-style-type: none"> • Individual Student Changes in Scores between the Inbound and the Outbound Exam
Examples of Target(s):	<ul style="list-style-type: none"> • Average of $\geq 25\%$ gain for all Students for at least 10 or more topics. • At least 90% of the students showed a change of score of at least 25% or higher between the Inbound Exam and the Outbound Exam

Metric:	Academic Leveling Course Reports
Examples of Measure(s):	<ul style="list-style-type: none"> • Average Score on the Post-test • Change in Scores between the Pre-test and the Post-test • Passing Scores
Examples of Target(s):	<ul style="list-style-type: none"> • $\geq 70\%$ • Difference of at least 40% between the Pre-test and the Post-test • All students pass each course with an 80% or higher score on either the Pre-test or the Post-test

Metric:	Write & Cite Course Report
Examples of Measure(s):	<ul style="list-style-type: none"> • Total Post-test Score • Topic-level Scores • Reduction in Plagiarism Issues • Fewer Resubmissions of Student Papers
Examples of Target(s):	<ul style="list-style-type: none"> • 80% or higher. • 70% or higher on at least 8 or more topics • A 50% or higher reduction in unintentional and intentional plagiarism on student papers. • $\leq 10\%$ of papers returned for re-write.

Metric:	Learner Comparison Report
Examples of Measure(s):	<ul style="list-style-type: none"> • Total Score • Topic-level Scores • Percentile Rank to the Selected Aggregate Pool(s)
Examples of Target(s):	<ul style="list-style-type: none"> • $\geq 55\%$ • $\geq 60\%$ on 8 out of 12 topics. • 85th percentile or higher for 8 out of 12 topics

Metric:	Internal Analysis Reports (Full and Executive Summary)
Examples of Measure(s):	<ul style="list-style-type: none"> • Percentile Rank based on the Selected Aggregate Pool • Topic-level Scores • Subject-level Scores
Examples of Target(s):	<ul style="list-style-type: none"> • 80th percentile or higher • $\geq 55\%$ for 8 out of 10 topics • $\geq 60\%$ for 3 out of 5 subjects on at least 9 out of 12 topics

Metric:	External Comparison Reports (Full and Executive Summary)
Examples of Measure(s):	<ul style="list-style-type: none"> • Scores Compared to the Selected Aggregate Pool(s) • Percent Change from Inbound to Outbound Exams • Percent Change compared to the Selected Aggregate Pool(s)
Examples of Target(s):	<ul style="list-style-type: none"> • $\geq 5\%$ higher average comparison • $\geq 30\%$ change in total score and for at least 7 out of 12 topics • $\geq 10\%$ higher percent change comparison

Metric:	Program or Cohort Report
Examples of Measure(s):	<ul style="list-style-type: none"> • Score Difference of Core Courses between Academic Programs • Score Differences Between Campus Locations
Examples of Target(s):	<ul style="list-style-type: none"> • $\leq 5\%$ difference between topics from core courses • $\leq 2.5\%$ difference between campus locations

Metric:	Longitudinal Report
Examples of Measure(s):	<ul style="list-style-type: none"> • Change in Scores between Time Periods • Rate of Change
Examples of Target(s):	<ul style="list-style-type: none"> • $\geq 5\%$ year-to-year positive change • ≥ 0.45 R2 between intervals for Outbound Exam scores

Metric:	Student/Exit Survey
Examples of Measure(s):	<ul style="list-style-type: none"> • Likert-type Average Scores • Number of Written Comments/Responses
Examples of Target(s):	<ul style="list-style-type: none"> • ≥ 3.5 mean responses • At least 1 constructive comment submitted per student

Metric:	Grade Scale Report
Examples of Measure(s):	<ul style="list-style-type: none"> • Converted Letter Grades based on our Grading Scale • Converted Percent Grades based on our Grading Scale
Examples of Target(s):	<ul style="list-style-type: none"> • B+ or Higher Letter Grades on the Outbound Exam • 83% or Higher Percent Grades on the Outbound Exam

Metric:	Response Distractors Report
Examples of Measure(s):	<ul style="list-style-type: none"> • Gaps with Knowledge-based Responses • Gaps with Critical Thinking Responses
Examples of Target(s):	<ul style="list-style-type: none"> • No significant ($p > .05$) gaps with knowledge-based responses • No significant ($p > .05$) gaps with critical thinking responses • No more than a 5% negative difference between our students' responses and that of the test bank • No more than a 5% negative difference between our students' responses and that of the selected aggregate pool

The same metrics, measures, and targets should be used regardless of whether the courses/programs are online or on-campus.



Assessment & Application

Consider your HEI and your areas of responsibility:

Describe how your institution collects learning outcomes data?

What types of rubrics are used for classifying data, if any?

What metrics, measures, and targets are used?

CHAPTER 18:

USING ASSESSMENT REPORTS FOR LEARNING OUTCOMES EVALUATIONS

Chapter Objective

Understand how assessment reports are used to satisfy compliance with accreditation requirements for learning outcomes.

Focus Areas

- Peregrine provides several different reports that are used in a variety of ways for Assurance of Learning.
- Reports are accessed through Client Admin, which every client has access to so that you can generate these reports anytime.
- Assessment-related reports are used for learning outcomes evaluation and for submission to the quality assurance agencies.
- Individual and summary reports are available for all educational courses and programs (ALCs, W&C, EvaluSkills, OLCs).

Programmatic Evaluation Reports

Longitudinal Analysis Report

A side-by-side comparison of different exam periods (up to five exam periods in one report).

Internal Analysis Report

A report of a selected group of exams with the selection of one aggregate pool at a time with both an analysis of means and an analysis of frequencies. The Executive Summary: Internal Analysis Report is an abbreviated summary of this report.

External Comparison Report

A report of a selected group of exams comparing the results against one or more aggregate pools. The Executive Summary: External Comparison Report is an abbreviated summary of this report.

Program/Cohort Comparison Report

A side-by-side comparison of the results between one or more academic programs or cohorts of students where there is overlap of topics on the student exams.

Supplemental Reports

Response Distractors Report

A unique report that summarizes why students answered questions incorrectly based on five types of response distractors.

Student Survey Report

A summary report of the results from the complimentary, optional student survey administered in conjunction with an Outbound Exam.

Grade Scale Report

A report based upon the client school's exam results used to determine a school-specific grading scale based on percentile scoring.

Aggregate Extraction Report

A report with the statistical data for each aggregate pool in Excel format used for additional data analysis.

Client Schools in Aggregates Report

A listing of the schools included in each of the aggregate pools.

Report Applications: Internal Analysis Report

The screenshot shows a web application interface for generating an Internal Analysis Report. At the top, there are navigation tabs for 'Dashboard', 'Reports', and 'Registrations'. The 'Reports' tab is active, and a dropdown menu is open, showing options: 'Individual', 'Programmatic', 'Other', and 'Aggregate'. The 'Aggregate' option is selected, and a sub-menu is displayed with the following items: 'Learner Comparison', 'Internal Analysis Executive Summary', 'Internal Analysis Report', 'External Comparison Executive Summary', 'External Comparison Report', 'Program Or Cohort', and 'Longitudinal'. The 'Internal Analysis Report' option is highlighted. Below the menu, there is a section titled 'Choose Your Assessment Period' with three numbered steps: '1 Assessment Period', '2 Comparison & Degree Level', and '3 Program Or Cohort Longitudinal'. The 'Assessment Period' step is active. Below this, there are input fields for 'Start Date' and 'End Date', both with a date format of 'mm/dd/yyyy'. A note below the dates reads: 'Results for assessments will be included in this report if the assessment completion dates fall v'. There is also an 'Assessment Category' dropdown menu with the option '-- Select From The List --'. On the right side of the interface, there is a bar chart comparing 'University' (blue bars) and 'Online Aggregate' (orange bars) for 'Marketing' and 'Accounting' categories. The y-axis is labeled '% Score'. Below the chart, there is a text box explaining: 'The Internal Analysis Report is built with a selected group of exams with the selection of one aggregate pool at a time with both an analysis of means and an analysis of frequencies. This report is used mostly for evaluations of learning outcomes using the frequency correct data for such analyses.'

Figure 18.1. The Internal Analysis Report is most commonly used for learning outcomes analyses (with one aggregate pool selection).

School results are compared at the topic and subject levels based on percent scores and percentile rankings to determine if student performance is below, at, or above desired thresholds established by the school.

Comparison of Inbound Exam Results with Outbound Exam Results

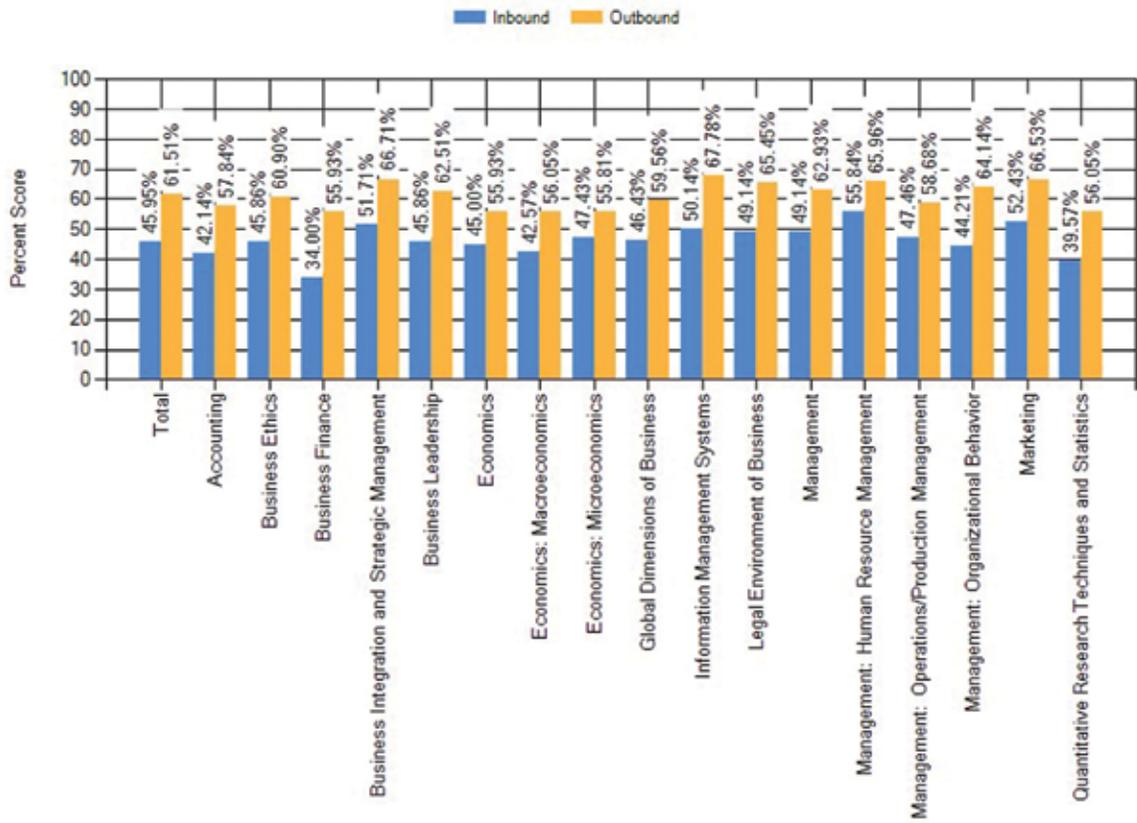
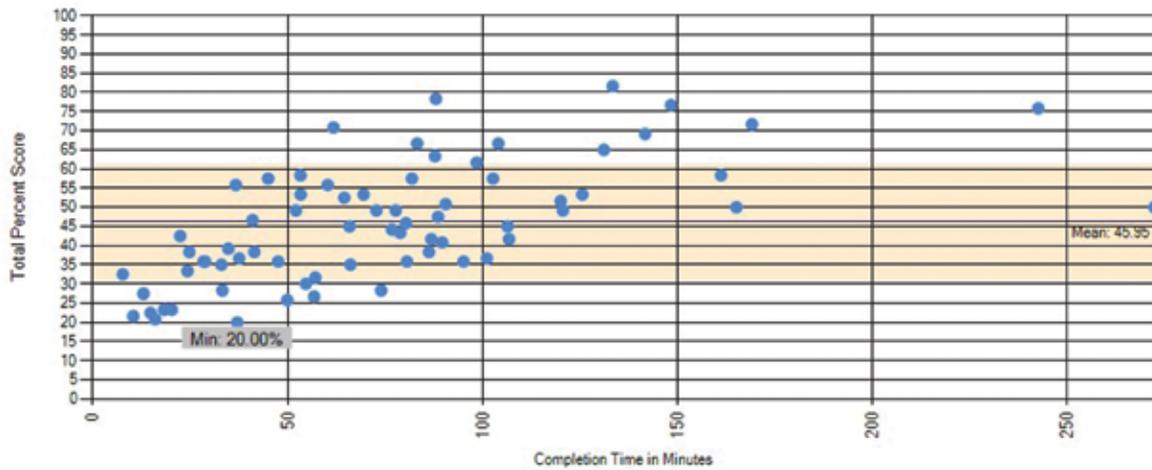


Figure 18.2. The first graph is a side-by-side overview of the exam results. If Inbound Exams are included, this graph will display both the Inbound and Outbound Exam averages.

The topic averages and the sub-topic averages will both be shown (the topics of Management and Economics include sub-topics).

The scatter plots are sorted by Exam Completion Time (low to high) and plotted as such with the scores of the shorter completion time shown to the left and the scores with the longer completion time shown towards the right. The Y axis is exam score and the X axis is completion time. Scatter plots are shown for both Inbound and Outbound Exam results for total, topic, and subtopic.

Inbound Exam **Total** Result



Sample Size: 70

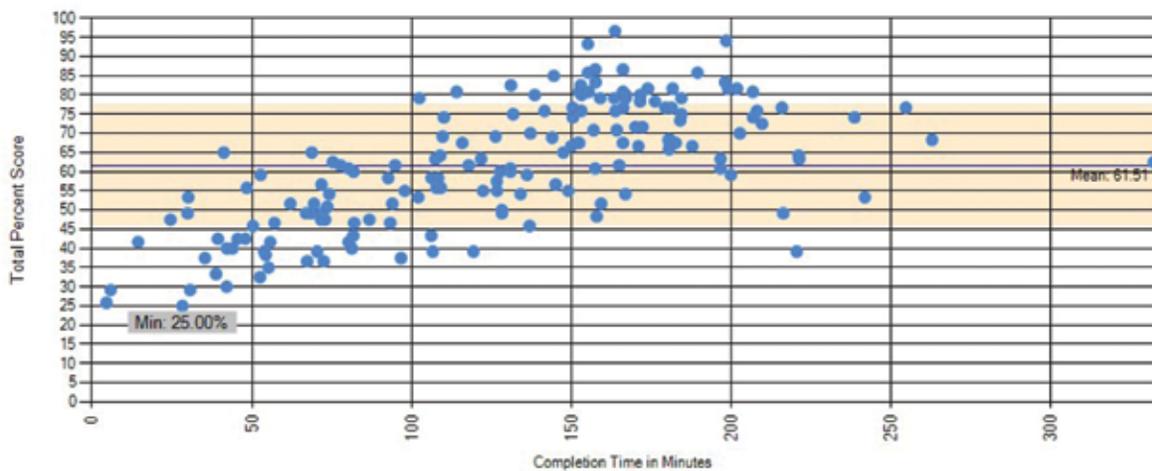
Mean Completion Time for this Topic (mins): Inbound = 76.42

Mean Score: 45.95%, Max Score: 81.67%, Min Score: 20.00%

Standard Deviation: 15.33

* Results are sorted by number of minutes taken to complete the exam.

Outbound Exam **Total** Result



Sample Size: 167

Mean Completion Time for this Topic (mins): Outbound = 128.67

Mean Score: 61.51%, Max Score: 96.67%, Min Score: 25.00%

Standard Deviation: 15.90

* Results are sorted by number of minutes taken to complete the exam.

Figure 18.3. Examples of score/completion time scatter plots.

Exam Summary Table

The Exam Summary Table is an overview of each topic/subtopic data with the percent correct, a comparison with the aggregate data, a percentile rank, and the percentile benchmarks used for learning outcomes evaluation. Similar tables are shown for each topic, with similar subject-level data.

Inbound Exam Summary

Inbound	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Score
	Number of Questions Offered	Frequency Correct	Number of Questions Offered	Frequency Correct		
Accounting	2000	48.85%	25174	48.31%	79	48.20%
Business Ethics	2000	47.85%	22779	47.79%	44	51.33%
Business Finance	2000	44.85%	25174	49.91%	52	47.90%
Business Integration and Strategic Management	2000	42.85%	19018	42.52%	81	44.61%
Business Leadership	2000	48.85%	17972	47.33%	41	48.67%
Economics	2000	44.45%	29384	42.36%	68	46.67%
Economics: Microeconomics	1000	42.85%	12039	42.47%	63	48.87%
Economics: Macroeconomics	1000	46.75%	12918	42.29%	79	46.54%
Global Dimensions of Business	2000	81.35%	23789	80.93%	60	83.81%
Information Management Systems	2000	81.15%	14018	86.34%	79	81.00%
Legal Environment of Business	2000	88.45%	23789	84.82%	84	88.30%
Management	2000	48.85%	28887	49.17%	47	53.37%
Management: Human Resource Management	888	62.79%	8948	61.84%	89	68.67%
Management: Operations/Production Management	888	46.42%	4901	46.22%	53	58.93%
Management: Organizational Behavior	488	48.75%	4638	48.72%	41	53.88%
Marketing	2000	50.85%	25174	50.58%	68	53.90%
Quantitative Research Techniques and Statistics	2000	34.85%	18088	33.80%	73	36.30%

Outbound Exam Summary

Outbound	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Number of Questions Offered	Frequency Correct	Number of Questions Offered	Frequency Correct		80th	85th	90th	95th
Accounting	1870	67.49%	75800	62.81%	90	58.93%	58.58%	67.47%	59.90%
Business Ethics	1870	63.47%	72286	61.88%	82	61.00%	62.00%	62.67%	64.33%
Business Finance	1870	34.49%	72600	62.44%	81	64.33%	64.30%	69.80%	67.28%
Business Integration and Strategic Management	1870	58.71%	88000	48.80%	95	62.00%	63.50%	64.67%	66.67%
Business Leadership	1870	67.68%	84881	63.67%	91	67.33%	68.14%	69.00%	69.10%
Economics	1870	54.25%	79757	45.02%	68	63.00%	63.70%	68.00%	66.84%
Economics: Microeconomics	830	68.33%	36888	48.71%	92	62.67%	63.40%	64.67%	66.61%
Economics: Macroeconomics	830	63.14%	36848	49.33%	76	63.33%	64.00%	68.33%	66.67%
Global Dimensions of Business	1870	82.81%	86288	86.68%	89	67.67%	62.33%	69.30%	69.00%
Information Management Systems	1870	71.08%	88700	86.96%	91	70.80%	72.00%	73.50%	74.50%
Legal Environment of Business	1870	88.27%	72884	80.86%	88	64.33%	68.00%	68.00%	68.67%
Management	1870	63.17%	79809	67.17%	83	62.20%	62.26%	64.67%	67.18%
Management: Human Resource Management	888	66.32%	24430	69.56%	88	64.33%	65.30%	68.82%	68.37%
Management: Operations/Production Management	888	46.26%	24918	54.30%	81	60.00%	61.17%	63.41%	64.23%
Management: Organizational Behavior	888	68.12%	24888	67.44%	85	62.34%	68.27%	64.67%	68.89%
Marketing	1870	48.87%	78800	55.56%	91	48.33%	44.00%	48.33%	47.67%
Quantitative Research Techniques and Statistics	1870	38.78%	66887	44.79%	82	49.33%	61.00%	62.30%	53.88%

Figure 18.4. Examples of exam summaries.

Topic/Subtopic Analysis

For each topic/subtopic for both Inbound and Outbound Exams, the reported data include:

- Inbound Exam/Outbound Exams side-by-side.
- Table of the assessment summary statistics.
- Scatter plot of the score (Y Axis) and the completion time (X Axis).
- Bar graph of the subjects within the topic/subtopic compared to the selected aggregate pool used with the report.
- A Frequency Analysis Table of the questions offered on the exam.

Frequency of Questions Offered on Outbound Exams

Business Integration and Strategic Management	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Number of Questions Offered	Frequency Correct	Number of Questions Offered	Frequency Correct		80th	85th	90th	95th
Business-Level Strategy	192	55.21%	7815	50.54%	74	56.41%	58.01%	59.91%	62.47%
Competition	99	50.51%	4083	49.42%	55	56.10%	57.52%	58.68%	60.74%
Corporate Mission, Vision, and Values	54	77.78%	1851	66.18%	84	75.76%	77.55%	80.15%	82.45%
Corporate Strategies	577	57.54%	24097	49.63%	90	54.90%	55.73%	57.00%	58.86%
Corporate Structure and Governance	130	46.92%	5347	45.33%	59	53.68%	55.21%	57.29%	60.00%
Diversification	297	54.88%	13561	48.32%	85	53.92%	54.85%	57.14%	60.86%
Stakeholders and Shareholders	127	58.27%	4828	50.93%	82	57.21%	59.48%	60.25%	64.15%
Strategic Planning and Decision-Making	194	61.34%	7368	50.99%	92	56.60%	58.49%	60.70%	63.36%
Topic Summary	1670	56.71%	69300	48.80%	95	53.00%	53.50%	54.67%	56.67%

Figure 18.5. This table shows the percentile rank and the percentile benchmarks based on the selected aggregate pool. The percentile ranking calculations and the percentile benchmarks are shown for the selected aggregate pool; results are subject to sample size limitations.

In general, percentile ranking and percentile benchmarks should be used with caution relative to making programmatic changes based on the results if the sample of questions offered for the aggregate pool is less than 300 for a specific subject.

Report Applications: External Comparison Report

The purpose of the external comparison report is to show the school's Inbound and Outbound Exam results compared to one or more selected aggregate pools. Up to five aggregate pools can be selected for comparison purposes.

Comparisons include a comparison of the scores and a comparison of percent change (when Inbound exams are included).

Summary Comparisons

For both Inbound and Outbound Exam sets, overview graphs are provided for both the comparison of the means and the comparison of percent change (only available with Inbound exams). Different graph sets are provided for each of the selected aggregate pools.

Topic/Subtopic Comparisons

Comparisons are shown for each topic and subtopic and include both a comparison of the score means and a comparison of the percent change from Inbound to Outbound (if Inbound Exams are included).

Report Applications: Program/Cohort Report

The purpose of this report is to show a side-by-side comparison of exam results for different programs or cohorts of students and then compare these results with one or more selected aggregate pools.

A “program” is an academic program (e.g., BA in Business Economics). Usually, these are different exams but could also be pull-down menus that students use when they start the exam.

A “cohort” could be any number of areas including specializations, campus locations, online vs. on-campus students, etc. Students use pull-down menus to indicate their cohort at the start of the exam.

Topic/Subtopic Analysis

The green line (and data point shown above the graph) are for the selected aggregate pool. More than one pool can be selected when generating this report.

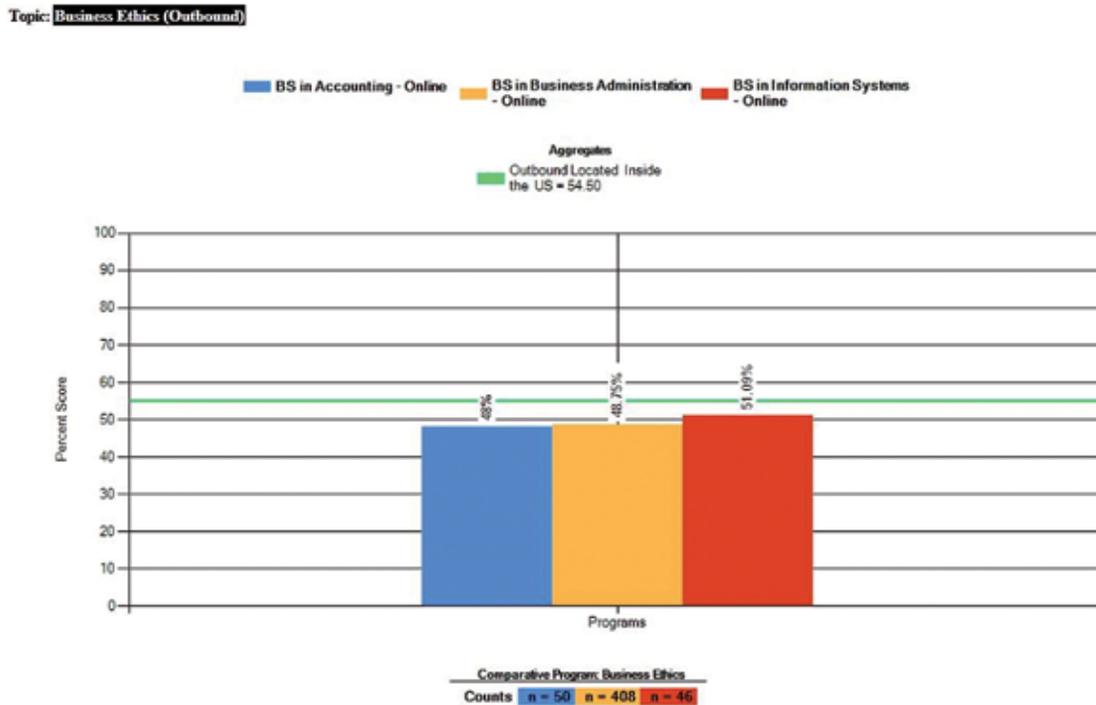


Figure 18.6. In this example, the exams for each of the five compared programs included the topic “Business Ethics”.

Report Applications: Longitudinal Analysis Report

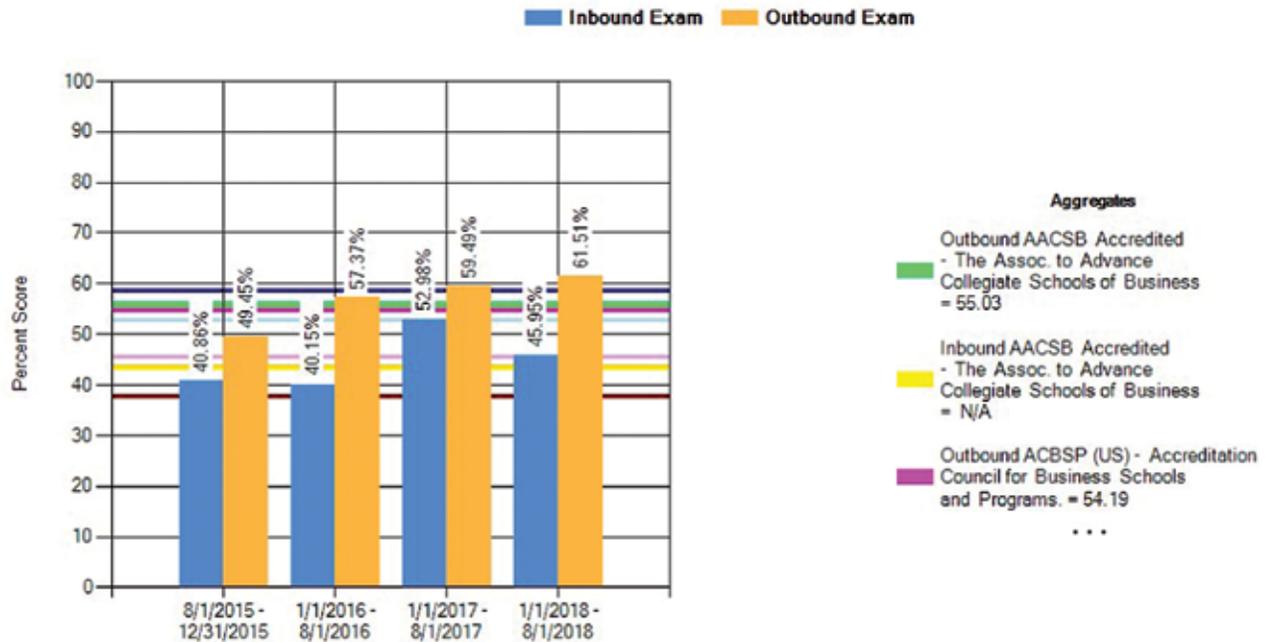
The purpose of this report is to show a side-by-side comparison of exam results for different exam periods (e.g., semester, year, quarter) and then compare these results with one or more selected aggregate pools.

The user can select up to five different exam periods, and each period is defined by a specific date range.

Aggregate data are available for both Inbound and Outbound Exam averages; however, we do not have similar aggregate pools for Mid-point Exams.

Use of this report is typically recommended for accreditation submissions to show data points over time.

Longitudinal Comparison: Total



Date Range	Counts		Diff		% Change	
	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
8/1/2015 - 12/31/2015	27	47	8.59	21.02%	17.22	42.89%
1/1/2016 - 8/1/2016	34	97	6.51	12.29%	15.56	33.86%
1/1/2017 - 8/1/2017	21	145				
1/1/2018 - 8/1/2018	70	167				

Figure 18.7. The Longitudinal Report.

Topic/Subtopic Analysis

Similar graphs are shown for each topic and subtopic included on the exam.

NOTE: We do not maintain aggregate pool data for Mid-point exams because the application and administration of these Mid-point exams is not consistent between schools.

Regression Analysis

The regression analysis allows you to readily see trends between time periods.

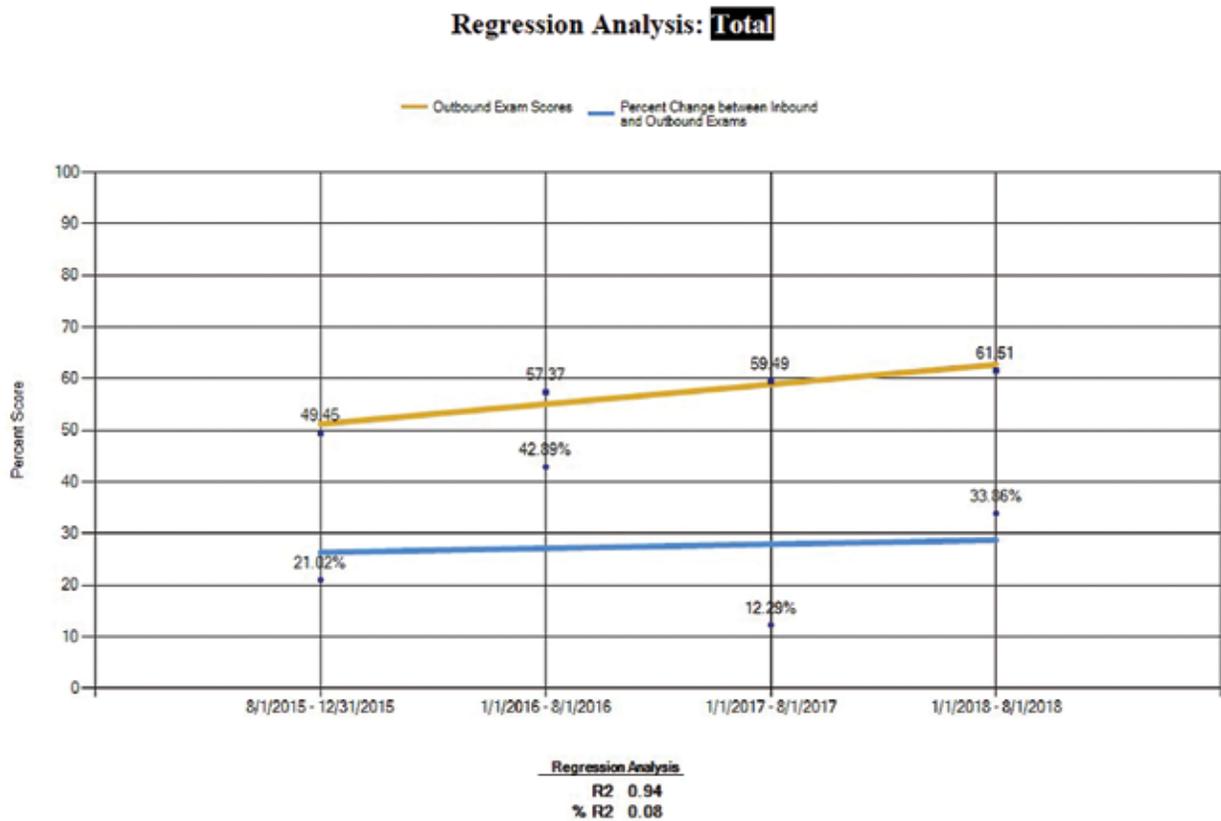


Figure 18.8. Example of regression analysis.

Report Applications: Pairwise Report

If the school uses both Inbound and Outbound Exams, then pairwise reporting is available once the individual students who completed an Inbound Exam also complete an Outbound Exam.

Pairwise reporting is possible after 2-3 years of testing because it will generally take that long for a student starting their program (Inbound Exam) to then graduate from the program (Outbound Exam).

The purpose of the report is to show a summary of individual student results over time.

Student: Student A
E-mail Address: studenta@xyz.edu
Student Id: 123456
Inbound Course Info: ACCT 211 - Principles of Accounting I Completed: 5/25/2018
Outbound Course Info: BUSI 400 - Strategic Planning/Business Policy Completed: 1/24/2019

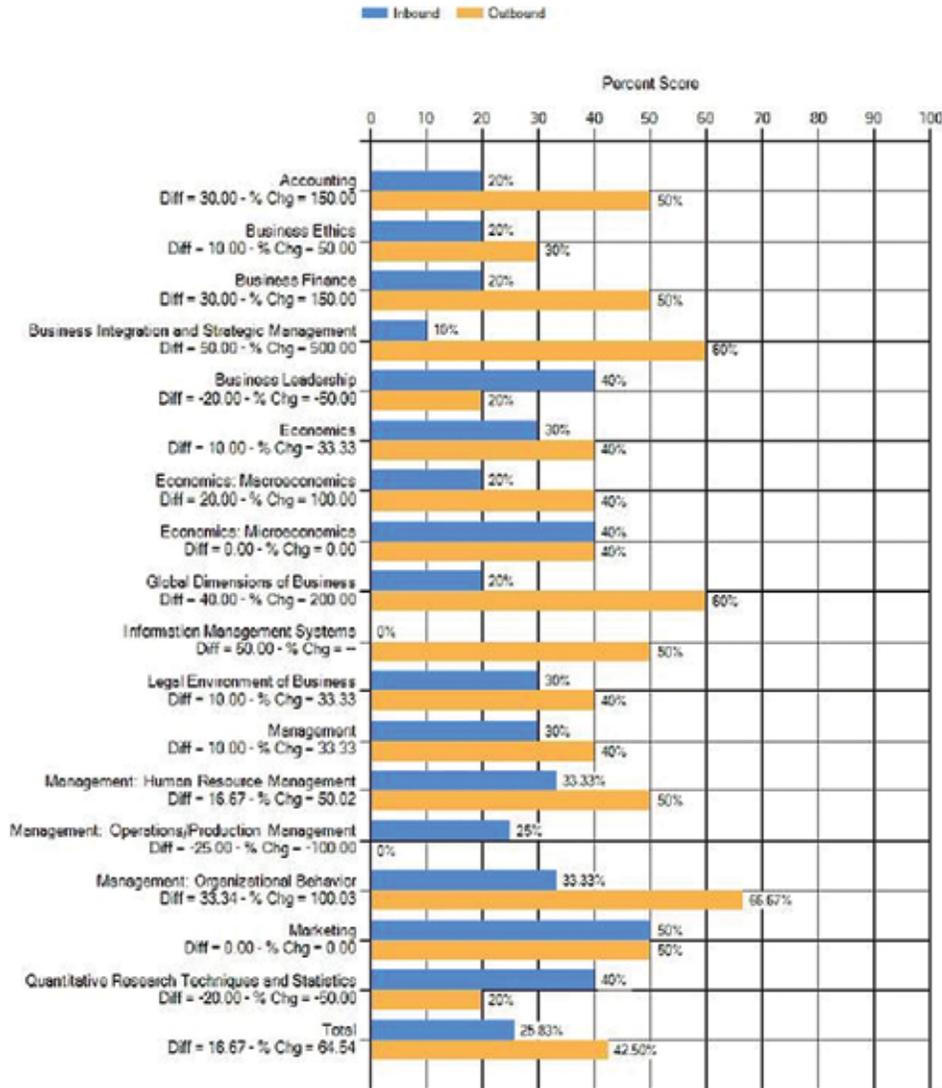


Figure 18.9. Example of a student analysis report.

For each selected student, the side-by-side Inbound/Outbound Exam results are shown. Shown for each topic/subtopic are:

- Percent Difference
- Percent Change
- Inbound Average (based on this set of results)
- Outbound Average (based on this set of results)

Report Applications: ALC Student Summary Report

The purpose of this report is to simply summarize the total set of results and to show student-by-student results. The score results by each student are the same as what is listed on the individual student completion certificates. The dates of the report are listed on the report cover. The student names and ID numbers included within the report are also listed on the report cover.

For each student, a summary of the student's results is shown for each ALC course. If no data are shown, as with the post-test score for Quant/Statistics in this example, it means that the student has not completed the post-test within the reported period.

The red vertical line is the total average scores, that is the averages of the ALC course post-test scores. This line is shown to indicate relativity of the scores.

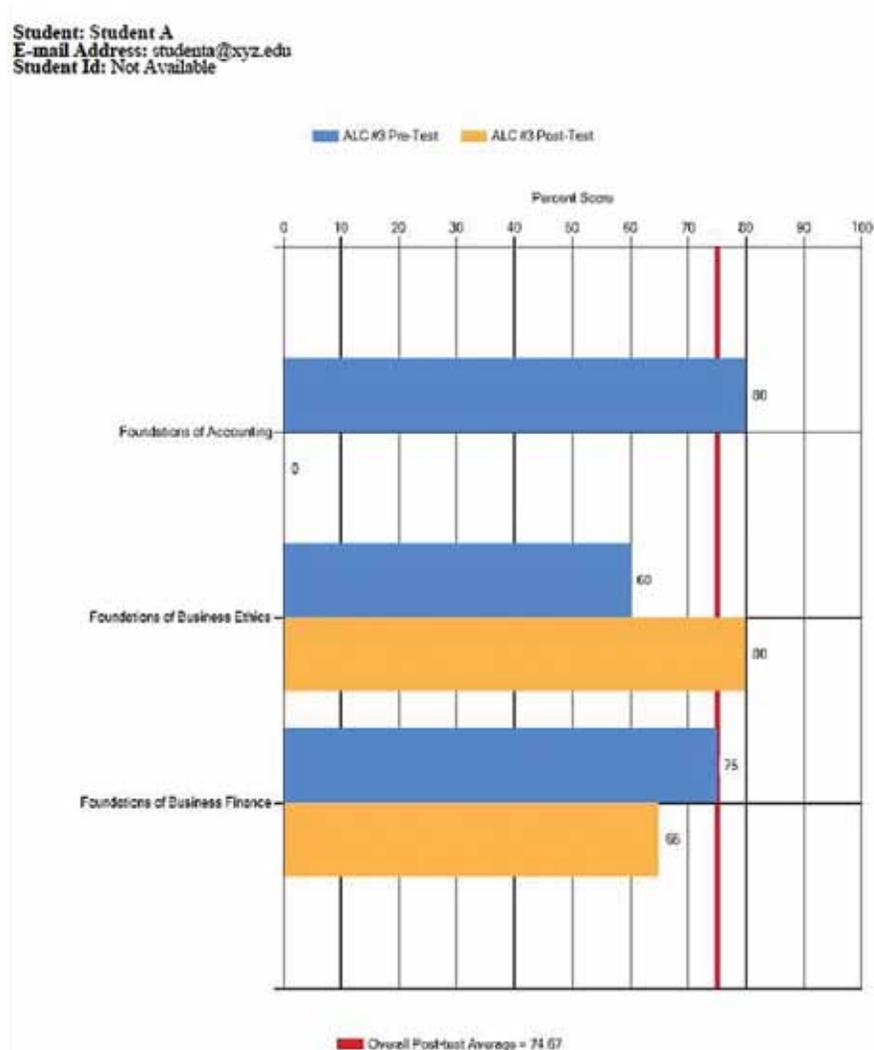


Figure 18.10. Example of student results.

Report Applications: The Grade Scale Report

After you have used our exam services, if you wish to hone your grading scale, you can generate your own grading scale based on your exam results. This simple report takes your student results, sorts the results to generate the 60th to 99th percentile marks used for grading purposes. Since there are many grading scales used in higher education, this report only shows the percentile scores and then you can determine what scores correspond to the actual letter (and point) grades: A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F.

Percentile	Total COMP Exam Score	Letter Grade on a 60-100% Scale	Letter Grade on a 65-100% Scale	Letter Grade on a 70-100% Scale
99th	78	A	A	A
98th	77	A	A	A
97th	76	A	A	A-
96th	75	A	A-	A-
95th	74	A	A-	A-
94th	73	A	A-	B+
93rd	72	A	A-	B+
92nd	71	A-	B+	B
91st	70	A-	B+	B
90th	69	A-	B+	B
89th	68	B+	B	B-
88th	67	B+	B	B-
87th	66	B+	B	C+
86th	65	B	B-	C+
85th	64	B	B-	C
84th	63	B	C+	C
83rd	62	B	C+	C
82nd	61	B-	C+	C
81st	60	B-	C+	C-
80th	59	B-	C+	C-
79th	58	C+	C	C-
78th	57	C+	C	C-
77th	56	C+	C	D+
76th	55	C	C	D+
75th	54	C	C	D+
74th	53	C	C-	D
73rd	52	C	C-	D
72nd	51	C-	C-	D
71st	50	C-	C-	D-
70th	49	C-	C-	D-
69th	48	D+	D+	F
68th	47	D+	D+	F
67th	46	D+	D	F
66th	45	D	D	F
65th	44	D	D-	F
64th	43	D	F	F
63rd	42	D	F	F
62nd	41	D-	F	F
61st	40	D-	F	F
60th	39	D-	F	F
59th	38	F	F	F

Figure 18.11. Example of the grade scale report.

You should have at least 50 completed Outbound Exams to make the Grade Scale statistically meaningful.

Report Applications: Response Distractors Report

The Response Distractors Report allows school officials to understand the reasons why students answered questions incorrectly based on five types of response distractors. The report helps schools with improving the quality of academic programs and delivery of programs to students.

Each subject (row) is analyzed with a Chi Square test. If the result is significant ($p < .05$), the cell is highlighted yellow if the school's value is significantly lower and green if the school's value is significantly higher than either the test bank (Table 2) or the selected aggregate pool (Table 3).

Topic	Subject	School % Correct	Aggregate % Correct	Calculation-based Error		Concept-based Error		Conclusion-based Error		Fact-based Error		Interpretation-based Error		P
				School % Incorrect	Aggregate % Incorrect	School % Incorrect	Aggregate % Incorrect	School % Incorrect	Aggregate % Incorrect	School % Incorrect	Aggregate % Incorrect	School % Incorrect	Aggregate % Incorrect	
Quantitative Research Techniques and Statistics		56.49 %	52.26 %	6.04 %	8.50 %	18.35 %	14.54 %	0.00 %	0.00 %	0.00 %	0.00 %	19.13 %	24.70 %	0.000
	Descriptive Statistics	54.42 %	53.92 %	6.64 %	10.16 %	20.80 %	20.55 %	0.00 %	0.00 %	0.00 %	0.00 %	18.14 %	15.38 %	0.142
	Hypothesis Testing	58.13 %	53.07 %	0.00 %	0.00 %	9.85 %	10.12 %	0.00 %	0.00 %	0.00 %	0.00 %	32.02 %	36.81 %	0.659
	Inferential Statistics	51.46 %	54.20 %	0.84 %	2.30 %	31.80 %	21.47 %	0.00 %	0.00 %	0.00 %	0.00 %	15.90 %	22.03 %	0.000
	Population Sampling	61.89 %	53.74 %	10.57 %	16.74 %	15.47 %	14.06 %	0.00 %	0.00 %	0.00 %	0.00 %	12.08 %	15.46 %	0.063
	Probability	61.02 %	51.87 %	14.57 %	19.22 %	14.57 %	11.28 %	0.00 %	0.00 %	0.00 %	0.00 %	9.84 %	17.64 %	0.003
	Significance Levels	37.02 %	48.32 %	2.48 %	0.91 %	16.53 %	10.73 %	0.00 %	0.00 %	0.00 %	0.00 %	23.97 %	40.04 %	0.000
	Type I and Type II Errors	50.44 %	48.91 %	5.26 %	1.88 %	18.86 %	12.79 %	0.00 %	0.00 %	0.00 %	0.00 %	25.44 %	36.42 %	0.000

Figure 18.12. Example of a response distractors report.

Using Peregrine's Response Distractor's Report allows you to evaluate both knowledge-based responses and critical thinking. The concept-based errors, interpretation-based errors, and the conclusion-based errors all directly relate to critical thinking.



Assessment & Application

Consider your HEI and your areas of responsibility:

What reports would be valuable to you towards understanding the learning outcomes of your academic programs?

How do these reports, and the subsequent analysis of the data, fit within your existing assessment management process?

CHAPTER 19:

ASSURANCE OF LEARNING ALIGNMENT WITH PEREGRINE'S EDUCATIONAL PROGRAMS AND COURSES

Chapter Objective

Understand how to integrate educational programs and courses into academic programs to improve student learning.

Focus Areas

- Peregrine offers six distinct educational courses and programs.
- The courses/programs are aligned with various aspects and dimensions of Assurance of Learning.
- The services address both programmatic and institutional requirements.
- Often are used in conjunction with assessment services as an indirect measure of student learning.



Write & Cite

The Assurance of Learning Alignment of Write & Cite: Academic Writing Readiness Course

The Service

Write & Cite: An Academic Writing Readiness Course provides students the skills and knowledge needed to write, format, and properly cite academic papers, theses, and dissertations. The course includes eight (8) modules and is customized to teach APA, MLA, or CMS documentation styles, along with instruction regarding:

- Proper word choice
- Tone
- Paper organization
- Literature-based research
- Avoiding plagiarism

Assurance of Learning Alignment

- Pre-test, instructional content, post-test.
- Writing quality for a senior paper, thesis or dissertation.
- Written communications consistency across the HEI.
- Educational integrity and avoiding plagiarism.
- Validating language proficiency when English is a second language.

Academic Leveling Courses

The Assurance of Learning Alignment of Academic Leveling Courses

The Service

The Academic Leveling Courses (ALC) program includes 15 online courses that span the entire business curriculum and serve as a bridge between the undergraduate and graduate business program.

Each ALC includes a pre-test, 4-6 hours of instructional content, and a post-test.

The ALCs can be used collectively as a prerequisite standalone bridge course or included within the first few existing MBA, MS, or MA courses.

Assurance of Learning Alignment

- Pre-test, instructional content, post-test.
- Ensure consistency with graduate business/management programs.
- Validate the student's competency from prior experience and/or prior coursework.
- An accreditation requirement when the student's undergraduate degree is not in business/management, and the student is seeking a graduate degree in the discipline.
- Validating language proficiency when English is a second language.

Business School Resource Center

The Assurance of Learning Alignment of Business School Resource Center

The Service

Peregrine's Business School Resource Center is an online/digital higher education service for students and faculty to develop globally informed students and career-ready graduates.

The service is academically appropriate for any course in any program needing current and applicable competency-based content.

Assurance of Learning Alignment

- Summative assessment.
- Application of theoretical concepts in real world application.
- Technical knowledge development.
- Competency development in critical thinking and global awareness.
- Develop entrepreneurial skills.
- Promotes lifelong learning.
- Workplace application.

EvalSkills

The Assurance of Learning Alignment of EvalSkills: Workplace Skills Assessment

The Service

Peregrine's EvalSkills: Workplace Skills Assessment is used to evaluate the soft skills of students and employees based on perspectives of evaluators who are familiar with the assessed individual.

Colleges and universities typically have intended learning outcomes (ILOs) related to the employability of graduates and/or proficiency with specified soft skills. Self-assessment of soft skill proficiency is not particularly useful – how one perceives himself/herself can be very different from how others perceive the person.

Higher education institutions can use EvalSkills to measure the employability (employment readiness) of its graduating students. The instrument would be used by the faculty, employers, internship supervisors, and perhaps fellow students. School officials can also use EvalSkills for staff/employee evaluation, although a slightly different instrument would be used compared to the instrument used for evaluating students.

Assurance of Learning Alignment

- Teamwork.
- Employability skills.
- Communication skills.
- 360-degree assessment.
- Multi-level soft-skills assessment.

Online Leadership Courses

The Assurance of Learning Alignment of Online Leadership Courses

The Service

Online Leadership Courses includes instruction focused business writing fundamentals, leadership communications, leadership essentials, leading teams, dealing with workplace conflict, leading change, and leading the leaders.

The online leadership program transforms theory into practice by showing participants how to become more effective global leaders.

The interactive learning modules include a variety of media types (audio, video, animation, and slideshow) designed to engage the participant.

Assurance of Learning Alignment

- Competency-based assessment.
- Soft-skill development.
- Institutional in nature and not discipline specific.
- Faculty and student education.
- Employability of graduates.
- Helps satisfy employer needs.
- Student engagement

Launch & Learn

The Assurance of Learning Alignment of Launch & Learn: Online Courses and Programs Service

The Service

Launch & Learn: Online Courses and Programs is a complete service package for Higher Education Institutions (HEI) so they may offer online (or blended) Master of Business Administration (MBA), Master of Philosophy (MPhil), and Doctor of Business Administration (DBA) academic degree programs.

The HEI teaches the courses and awards the degrees and diplomas.

Assurance of Learning Alignment

- Accreditation ready in terms of assessment, rigor, curriculum, and content.
- Meet market requirements.
- Quality for online/blended programs.
- Program, concentration, specialization, and/or course adoption options.



Assessment & Application

Consider your HEI and your areas of responsibility:

Which of these services could you adopt to help with a specific aspect of your Assurance of Learning program?

If adopted, how does the service address a gap in the quality, consistency, and Assurance of Learning of your academic institution or school?

CHAPTER 20: SERVICE ALIGNMENT WITH ASSURANCE OF LEARNING

Chapter Objective

Understand how to improve student learning by integrating academic assessments and integrated online education programs and courses.

Focus Areas

Peregrine's Programmatic Assessment Services:

- Accounting/Finance
- Business Administration (US-centric)
- Criminal Justice (US-centric)
- Early Childhood Education (US-centric)
- General Education
- Global Business Education (Outside US)
- Healthcare Administration (US-centric)
- Public Administration (US-centric)

Peregrine's Online Educational Programs and Courses:

- Academic Leveling Courses (Business/Management Programs)
- Business School Resource Center
- Write & Cite: Academic Writing Readiness Course
- EvaluSkills: Workplace Skills Assessment
- Online Leadership Courses
- Launch & Learn: Online Courses and Programs (online academic programs)

Initial development and ongoing revisions to assessment services and online educational programs and courses take into account requirements from different accreditation agencies.

Incorporating Peregrine's Assessment Services into Assurance of Learning

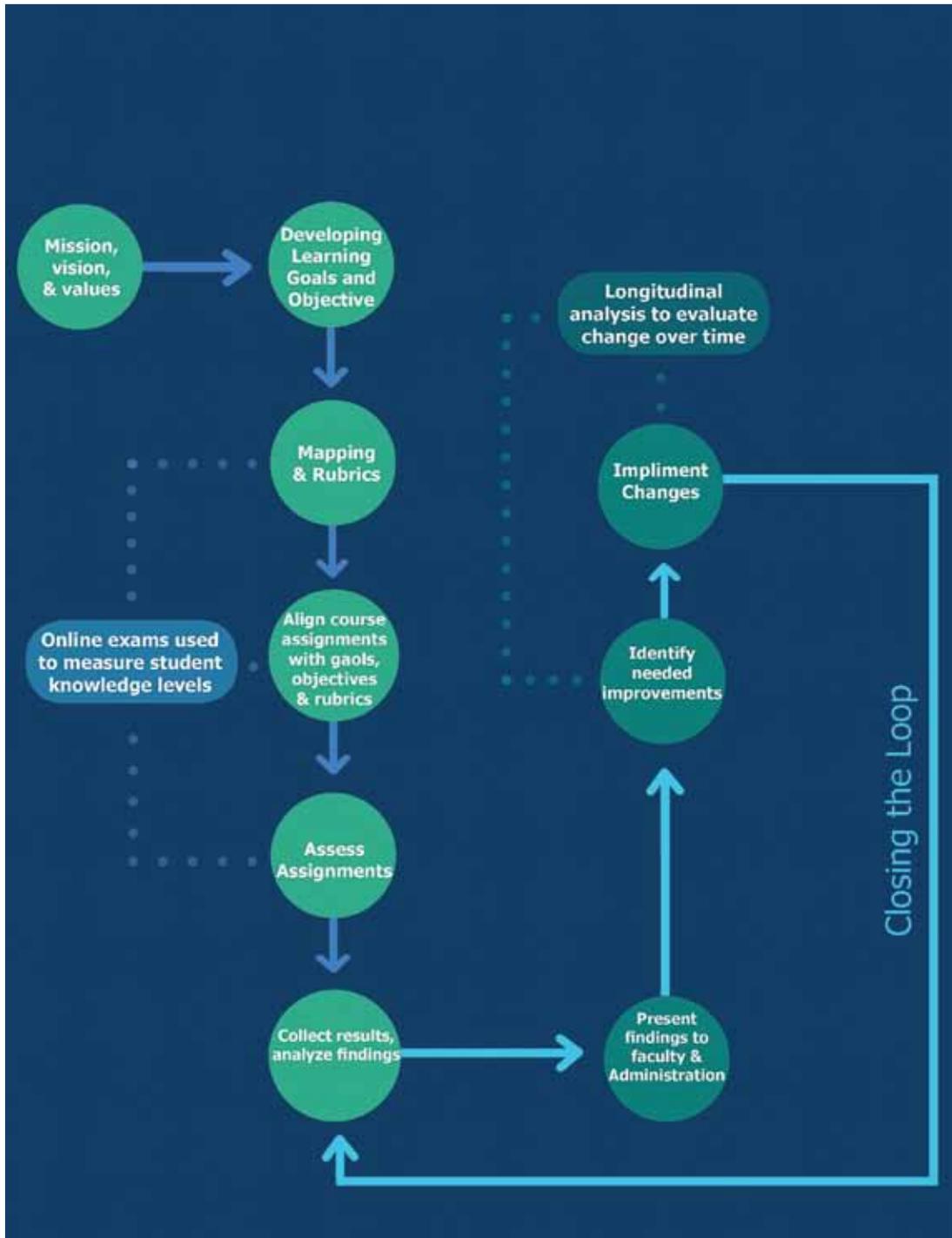


Figure 20.1. Incorporating assessment services into Assurance of Learning.

Programmatic assessment is a direct measure of learning outcomes. The results are used to understand how learning has occurred. The Inbound/Outbound (programmatic pre-/post-test) exams help understand the changes in knowledge as a result of the educational experience. Longitudinal analysis helps understand trends and the results from any course/program changes.

Incorporating Peregrine’s Educational Programs and Courses into Assurance of Learning

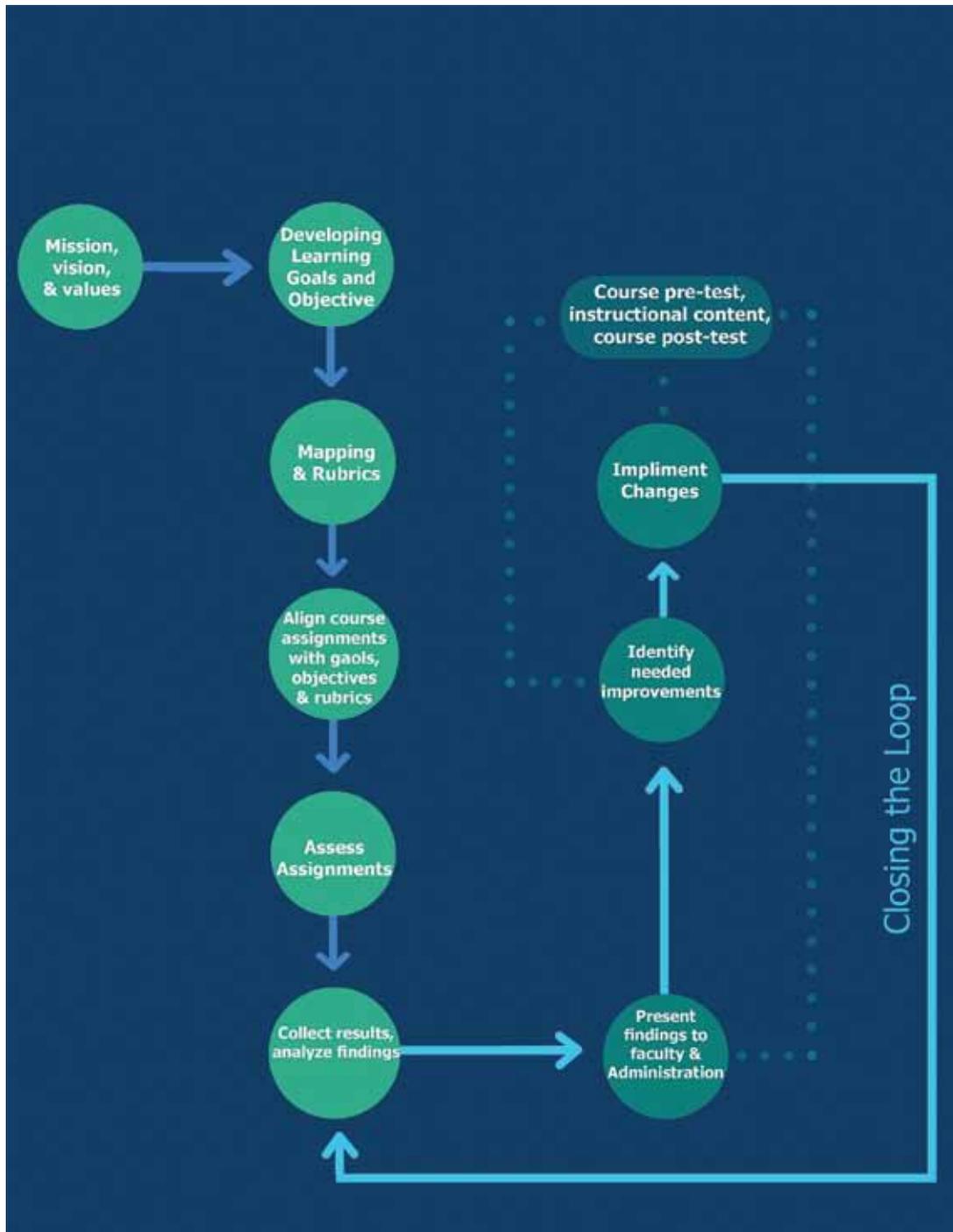


Figure 20.2. Incorporating educational programs and courses into Assurance of Learning.

Filling in the Gaps with Online Educational services:

- **Academic Leveling Courses (ALCs):** Fills in the gap between undergraduate and graduate education.
- **Write & Cite (W&C):** Fills in the gap of writing quality and understanding of academic writing requirements.
- **Business School Resource Center (BSC):** Fills in the gap of global awareness, linking theory with application, and advanced business knowledge.
- **Online Leadership Courses (OLCs):** Fills in the gap with applied leadership and managerial skills education.
- **EvaluSkills:** Fills in the gap for soft skill assessment.

Institutional Assessment

Institutional Assessment is the systematic collection, review, and use of information about educational quality, undertaken for the purpose of improving programs, services, student learning and development.



Figure 20.3. Institutional level assessment.

Institutional Services

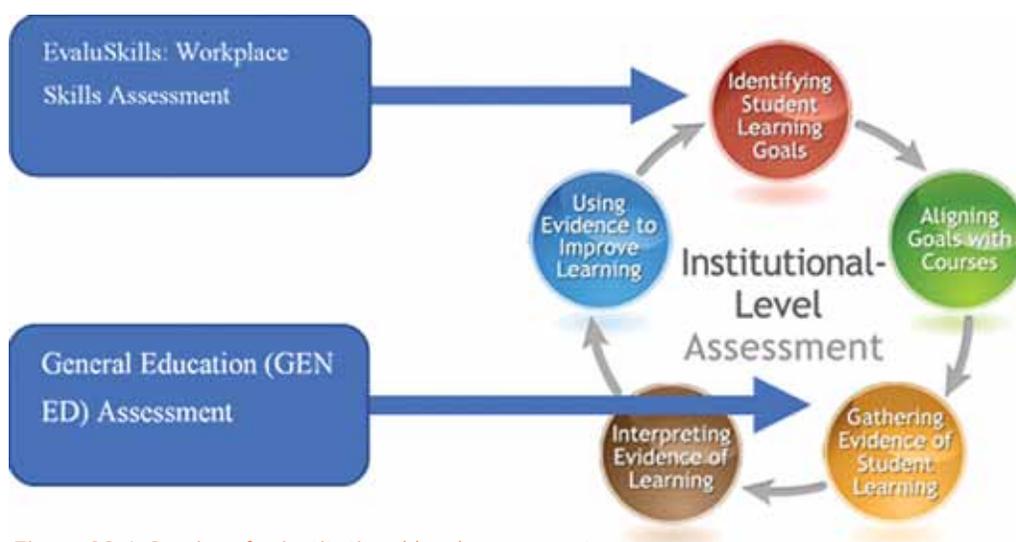


Figure 20.4. Services for institutional level assessment.



Assessment & Application

Consider your HEI and your areas of responsibility:

Which of our assessment services align with your specific Assurance of Learning needs?

Which of our educational programs and courses align with your specific Assurance of Learning needs?

If a service does not readily exist that can address your Assurance of Learning needs, what other options do you have?

CHAPTER 21:

THE LEARNING OUTCOMES MAPPING & REPORTING UTILITY

Chapter Objective

Understand how Peregrine's Learning Outcomes Mapping & Reporting (LOM&R) Utility, which is provided to client institutions through Client Admin, can be used to generate the assessment plan and the assessment results reports.

Focus Areas

The Learning Outcomes Mapping & Reporting (LOM&R) Utility:

- Purpose of the LOM&R.
- Learning Outcomes Management.
- Outcomes Mapping.
- The Assessment Plan Report.
- The Assessment Results Report.

Learning Outcomes Assessment

Learning Outcomes Assessment (LOA) is the process of collecting information that informs academic units (the institution, colleges, schools, departments, and programs) whether the education services, activities, or experiences they offer are achieving the desired student learning outcomes. Accreditation agencies also require such information.

Performing LOA involves the following three aspects:

1. Determine the desired student Learning Outcomes. What are the most important learning goals for students to achieve as a result of completing an academic activity or educational experience?
2. Evaluate student performance relative to the desired learning outcomes. To what extent are students achieving the learning outcomes?
3. Use the results to improve students' performance in the future. What changes should be made to improve effectiveness of academic activity(s) and/or the students' educational experience?

Utility Definitions

There are many terms used within the LOA and Assurance of Learning (AoL) domains. For purposes of this utility, we selected terms that are the most common across the global higher education landscape. Please see the Glossary of Terms document included within the Resource Center for a complete listing of terms and definitions as we are using them within this utility.

Utility Overview

The Learning Outcomes Mapping & Reporting (LOM&R) Utility is provided so that you can generate an Assessment Plan Report and subsequent assessment results reports with data that reflect how well students are performing in relation to your specific student learning outcomes.

LOM&R enables you to map your learning outcomes at various levels of the institution's hierarchy: colleges, schools, departments, programs, concentrations/specializations, and courses (modules) as applicable. You can efficiently obtain and report the most relevant results organized by your learning outcomes at any organizational level.

LOM&R requires you to enter your broad-based learning goals and learning outcomes at all hierarchical levels and then map these to the appropriate assessment services, which allows you to subsequently pull the assessment data into the Utility and report the data based on your learning outcomes.

The LOM&R Utility allows you to select and report data from two areas:

1. You can pull and report the results from specific services provided by Peregrine Academic Services (e.g., assessment services, Write & Cite, Academic Leveling Courses, Online Leadership Courses, etc.). If you are currently using these services (or add the services later), the data can be directly imported into the utility and displayed with subsequent reports.
2. You can also enter other direct or indirect measures (e.g., Internship Reports, Student Survey Results, Course Evaluations, etc.) that you are using to assess your learning outcomes. The results from these forms of measurement are manually entered within the LOM&R Utility.

Guiding Principles and Concepts with the LOM&R Utility

1. In the LOM&R Utility, you are essentially building a database that includes relationships between the institutional hierarchy, the learning outcomes, and the assessment data used to evaluate the learning outcomes. You could do this in Excel, but it would be tricky based on the relationships that are needed for report purposes. Thus, the idea behind the LOM&R Utility is to step-by-step build a relationship-based database.
2. In global higher education, different schools (and different accreditation agencies) sometimes use different terms for the same concepts. In the LOM&R Utility, we used the terms that are most common when it comes to these processes and concepts.
3. The full range of hierarchical levels are possible; however, the LOM&R Utility was designed for the most complex of higher education institutions. You only enter the hierarchy as it exists in your institution.

4. There are 11 steps in the process; however, after Steps 1 through 9 are complete, those steps are only reviewed when there are changes. Steps 10 and 11 are repeated regularly to produce the required assessment reports.
5. Once the relationship-based database is built, some of results reporting is automated, and other aspects are not. The reporting of assessment results is not 100% automated given the nature of how the targets (objectives) are often written and described. Therefore, there are steps and processes that require you to manually link the results and interpret the results for subsequent reports.
6. The LOM&R Utility is designed to report for both programmatic and institutional accreditation. As the assessment results are rolled-up to the institutional level, the report can be used for institutional accreditation reporting. Peregrine's assessment services can be used across the institution.
7. Entering (and mapping) your course-level learning outcomes is optional. Although it will take time to enter and map all the course-level learning outcomes, the effort may be worth it in the long run so that you can report your assessment results down to the course level.
8. In Step 10, you will enter/obtain your assessment results. These results are stored in the table and available for subsequent reports. Typically, you will update these results annually, or as needed, for reporting purposes.
9. In Step 11, you will generate either an Assessment Plan or an Assessment Results report. Typically for accreditation purposes, agencies first want to see your plan to assess your learning outcomes, then later you will submit your results based on the plan. The reports are nearly identical.

Now that you have streamlined your reporting, think about how you will share and communicate outcomes assessment data and improvements to internal and external audiences. The National Institute for Learning Outcomes Assessment (NILOA) provides a transparency framework for ensuring assessment data and information are accessible and curated for specific audiences.

<http://www.learningoutcomesassessment.org/TransparencyFrameworkIntro.htm>

Utility Process Chart

The overall process for using the LOM&R Utility is shown in Figure 21.1.

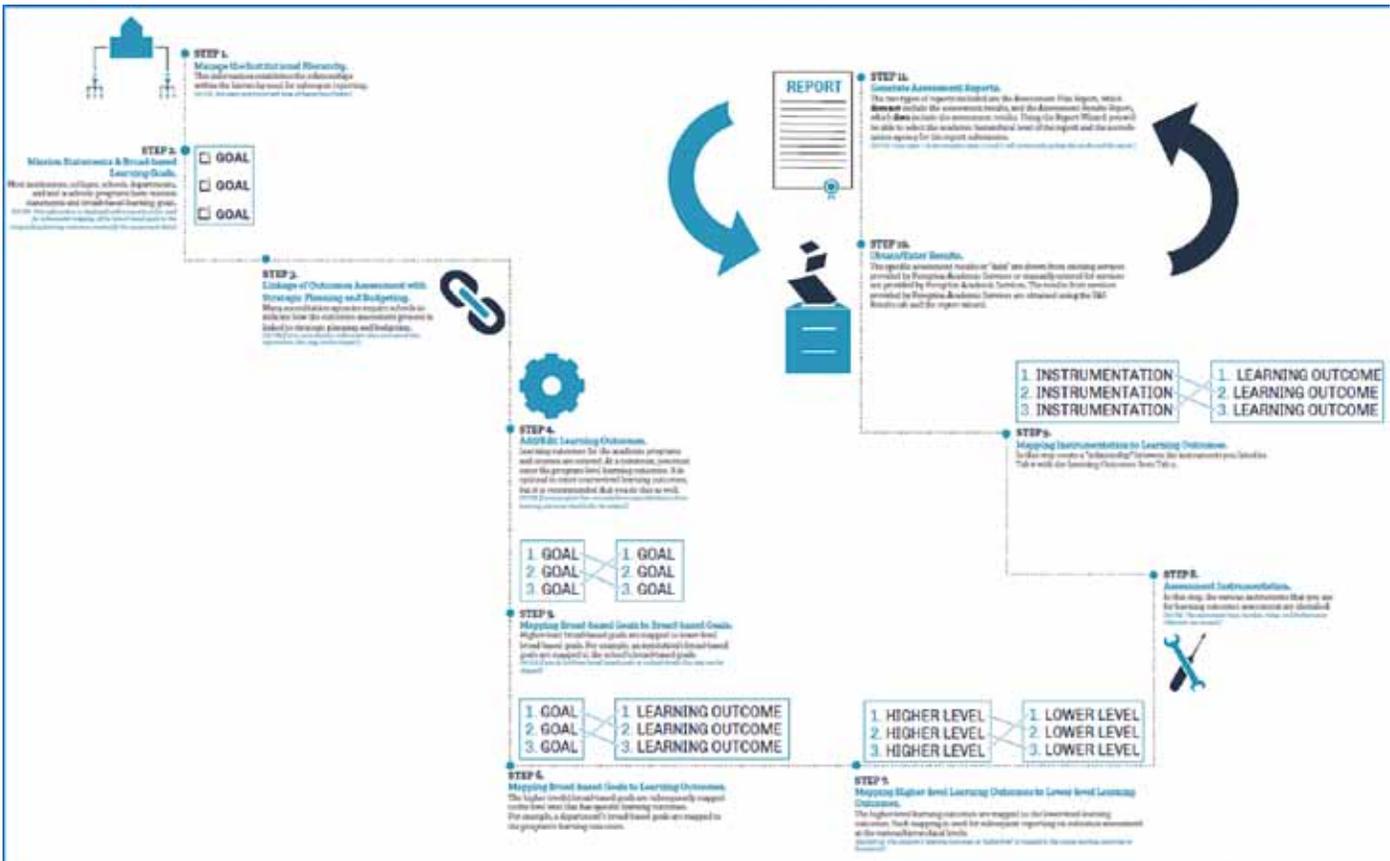


Figure 21.1. The LOM&R Utility Process.

Using the LOM&R Utility

Use of the LOM&R utility requires the following 11 steps, as indicated within the Utility Menu:



Figure 21.2. Step 1 of the LOM&R Utility.

- 1. Manage the Institutional Hierarchy.** The hierarchy includes the names for the institution, colleges, schools, departments, programs, concentrations/specializations, and courses (modules). Not every institution will have all hierarchical levels. Entering this information establishes the relationships within the hierarchy used for subsequent reporting.

The institutional hierarchy includes the names for the institution, colleges, schools, departments, programs, concentrations/specializations, and courses. You skip hierarchical levels if your institution does not have the level. Entering this information establishes the relationships within the hierarchy used for subsequent reporting. Not every higher education institution will have all available hierarchies (Institution, College, School, Department, Program, Concentrations/Specializations, and Course); however, you should at a minimum enter your Institution, Program, and Course hierarchies.

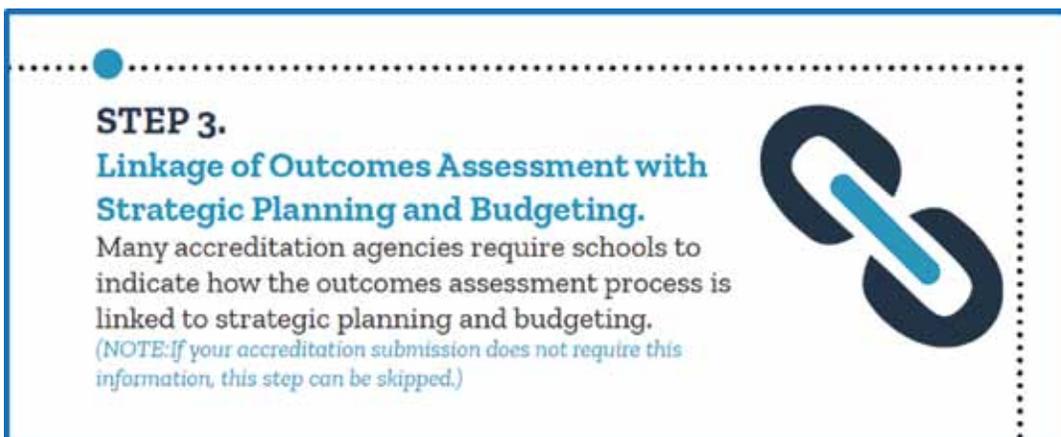
- 2. Mission Statements & Broad-based Learning Goals.** Most institutions, colleges, schools, departments, and sometimes concentrations/specializations, and academic programs have mission statements and broad-based learning goals. This information is displayed within reports and is used for subsequent mapping of the broad-based goals to the corresponding learning outcomes eventually the assessment data.



Figure 21.3. Step 2 of the LOM&R Utility.

Most institutions, colleges, schools, departments, and sometimes academic programs and concentrations/specializations have a mission statement and/or broad-based learning goals. Within this tab, you will enter the Mission Statement and any Broad-based Learning Goals for each academic unit as appropriate for your institution. Mission Statements and Broad-based Goals are displayed within reports and are used for subsequent mapping of the goals to the corresponding learning outcomes and ultimately to the assessment data. Enter the information as you would want it to display in subsequent reports.

3. Linkage of Outcomes Assessment with Strategic Planning and Budgeting. Many accreditation agencies require schools to indicate how the outcomes assessment process is linked to strategic planning and budgeting. If your accreditation submission does not require this information, this step can be skipped.



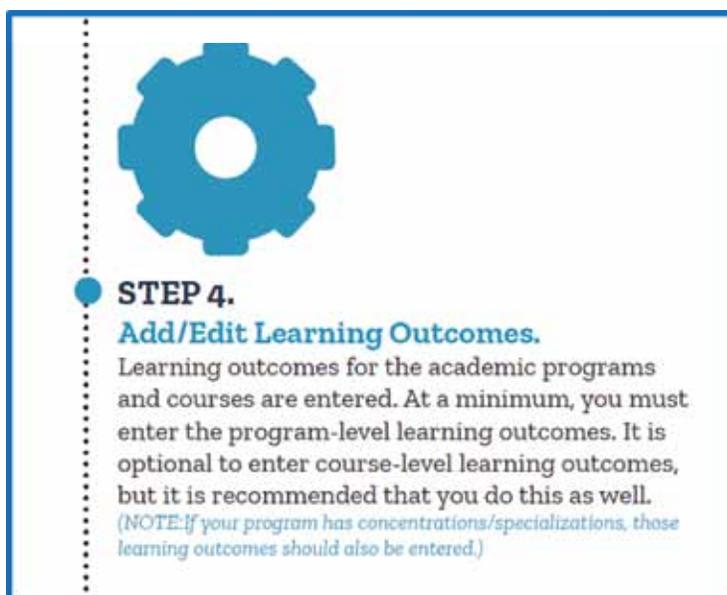
STEP 3.
Linkage of Outcomes Assessment with Strategic Planning and Budgeting.
Many accreditation agencies require schools to indicate how the outcomes assessment process is linked to strategic planning and budgeting.
(NOTE: If your accreditation submission does not require this information, this step can be skipped.)

The graphic for Step 3 features a blue chain link icon on the right side. The text is enclosed in a blue-bordered box with a dotted line on the top and right sides. A blue dot is positioned at the top left of the dotted line.

Figure 21.4. Step 3 of the LOM&R Utility.

Many accreditation agencies require schools to indicate how the outcomes assessment process is linked to strategic planning and budgeting. Enter the Strategic Planning and the Budgeting linkages in narrative text for each academic level, as appropriate for your institution's hierarchy and subsequent accreditation submissions. If your accreditation submission does not require this information, this step can be skipped.

4. Add/Edit Learning Outcomes. Learning outcomes for the academic programs and courses (and higher hierarchical levels if needed) are entered. At a minimum, you must enter the program-level learning outcomes. If your program has concentrations/specializations, those learning outcomes should also be entered. It is optional to enter course-level learning outcomes, but it is recommended that you do this as well.



STEP 4.
Add/Edit Learning Outcomes.
Learning outcomes for the academic programs and courses are entered. At a minimum, you must enter the program-level learning outcomes. It is optional to enter course-level learning outcomes, but it is recommended that you do this as well.
(NOTE: If your program has concentrations/specializations, those learning outcomes should also be entered.)

The graphic for Step 4 features a blue gear icon at the top left. The text is enclosed in a blue-bordered box with a dotted line on the left side. A blue dot is positioned at the top left of the dotted line.

Figure 21.5. Step 4 of the LOM&R Utility.

Enter the learning outcomes for the academic programs, concentrations/specializations, and courses. If the higher-level unit also has learning outcomes (e. g., Department, School, College, or perhaps even the Institution), those should also be entered. At a minimum, you must enter your program-level learning outcomes. If you have specific learning outcomes for concentrations/specializations, those too should be entered. It is optional to enter the course-level learning outcomes for all the courses included in each academic program. This is certainly a time-consuming process, but if performed, subsequent reports of assessment results can be used down to the course level. Such reporting would be helpful to course managers.

5. Mapping Broad-based Goals to Broad-based Goals. Higher-level broad-based goals are mapped to lower-level broad-based goals if your institutional hierarchy has broad-based goals at multiple levels. For example, an institution's broad-based goals are mapped to the school's broad-based goals. If you do not have broad-based goals at multiple levels, this step can be skipped.

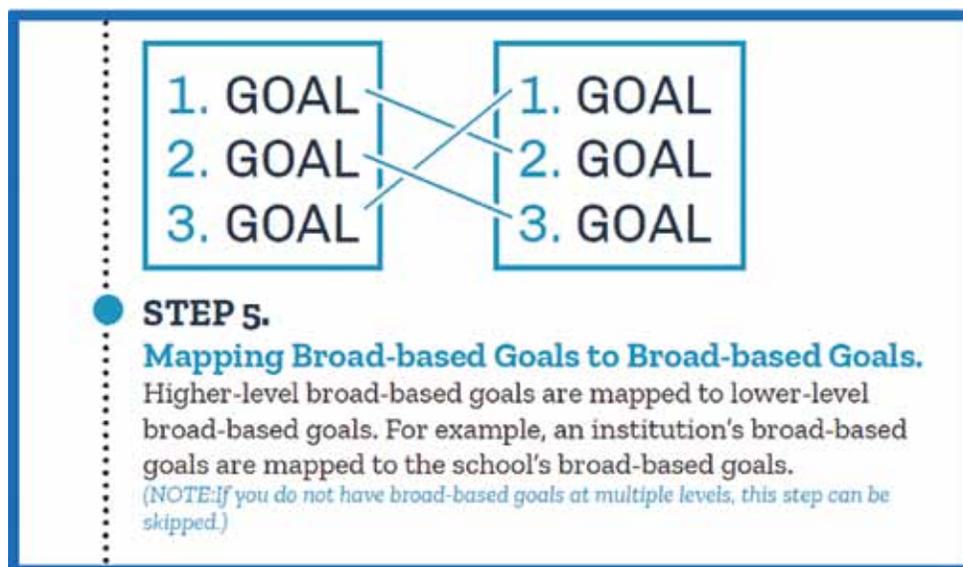


Figure 21.6. Step 5 of the LOM&R Utility.

In this step, you will create relationship(s) between broad-based goals and the next level's (lower level) broad-based goals. For example, if you have broad-based goals for the institution and a separate set of broad-based goals for the colleges/schools within the institution, you will need to map the higher-level goals to the lower-level goals. Mapping of broad-based goals to the next level's broad-based goals is only needed between hierarchical levels if there is more than one hierarchical level with broad-based goals. If you only have one set of broad-based goals entered in the previous step, then you can skip this step and continue with Step 6 where you will map the broad-based goals to the lower level's learning outcomes.

6. Mapping Broad-based Goals to Learning Outcomes. The higher level(s) broad-based goals are subsequently mapped to the lower level that has specific learning outcomes. For example, a department's broad-based goals are mapped to the program's learning outcomes.

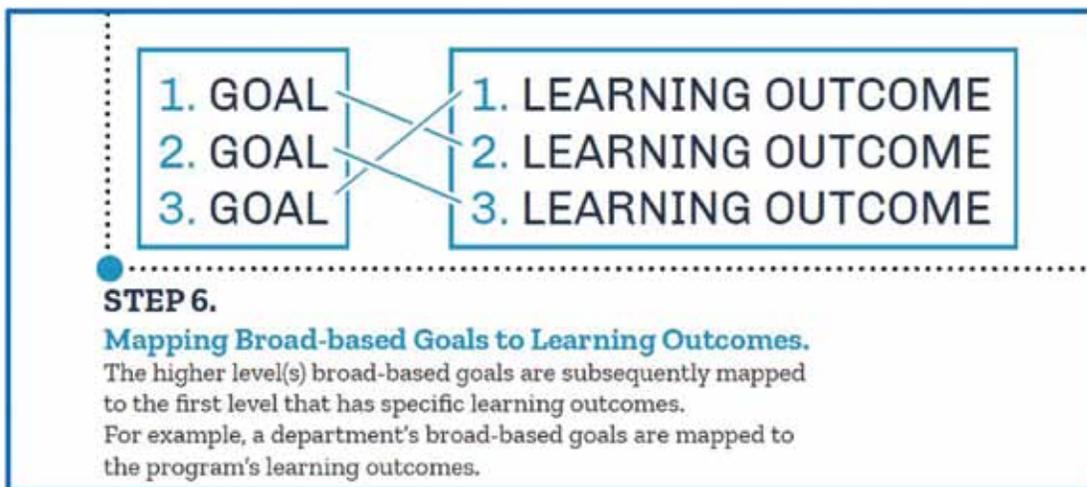


Figure 21.7. Step 6 of the LOM&R Utility.

In this step, you will create relationship(s) between broad-based goals and learning outcomes, which is needed if subsequent reporting is to be performed that rolls up the results to the higher level. For example, you can create an institutional-level report that rolls up all the assessment data relative to the institution's broad-based goals. If you do not have any broad-based goals, then you can skip this step and proceed with Step 7.

The lowest level with broad-based goals should be mapped to the next level's learning outcomes. For example, you should map your college/school broad-based goals to the program's learning outcomes. In many academic situations, you only have one set of broad-based goals (usually at the institutional level) and then the next level (typically academic program) has learning outcomes, in which case you would map those broad-based goals to the learning outcomes (e. g., the institution's broad-based goals are mapped to the program's learning outcomes).

To map these broad-based goals to the learning outcomes, select the higher level on the left and the lower level on the right, and the goals and outcomes will be shown. Using your mouse, drag from the left to the right and create the relationship where a curved line that ends with an arrow will appear. Right-click on the line to view the relationship. Multiple relationships are possible, each shown with a curved line that ends with an arrow.

7. Mapping Higher-level Learning Outcomes to Lower-level Learning Outcomes. The higher-level learning outcomes (e. g. Department or Program) are mapped to the lower-level learning outcomes (e. g. Program or Course). The program’s learning outcomes are mapped to the course learning outcomes. Such mapping is used for subsequent reporting on outcomes assessment at the various hierarchical levels.

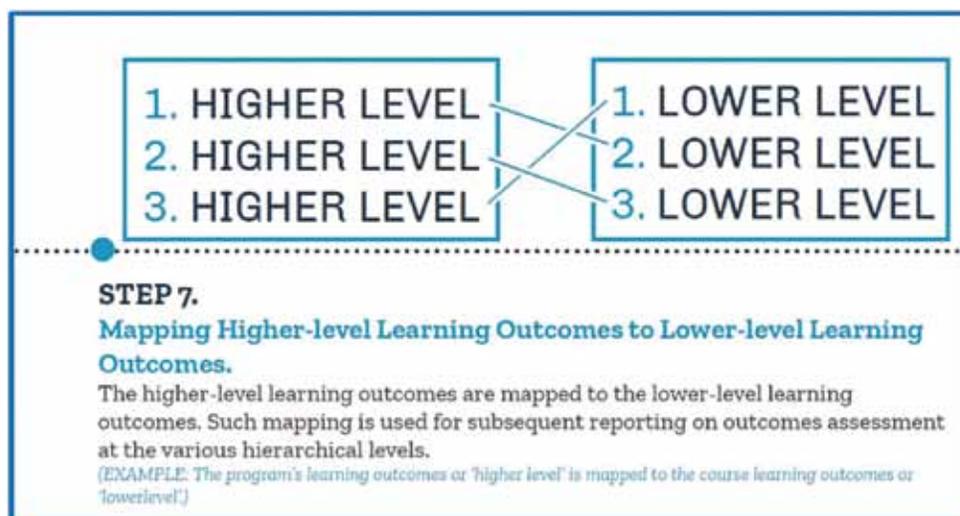


Figure 21.8. Step 7 of the LOM&R Utility.

In this step, you will map the higher-level’s learning outcomes to the lower-level’s learning outcomes. You will need to map down to the lowest level of learning outcomes that you have entered. Such mapping is used for subsequent reporting on outcomes assessment at the various hierarchical levels. For example: College/School-level learning outcomes are mapped to department-level learning outcomes; Department-level learning outcomes are mapped to program-level learning outcomes; Program-level learning outcomes are mapped to course-level learning outcomes; and Concentration/Specialization learning outcomes are mapped to course-level learning outcomes.

8. Assessment Instrumentation. In this step, the various instruments you use for learning outcomes assessment are identified. The Instrument Type, Number, Value, and Performance Objective are created.



Figure 21.9. Step 8 of the LOM&R Utility.

In this step, you will identify the name of the instrument (the metric or form of measure), the type of instrument (Direct or Indirect), the listing sequence of the instrument, the specific measures (types of results from the metric), and target (performance objective) that you use for program-level and optionally course-level assessment. Essentially, you are building a list of assessment instruments that you will map to your learning outcomes in Tab 9 and then to specific results in Tab 10 for reporting purposes in Tab 11.

Typically, you only enter the instrumentation for concentration/specializations, programs, and courses. You do not need to enter instrumentation for higher organizational levels; however, the option exists should you decide that you do want to enter instrumentation for higher levels. Keep in mind that subsequent reporting rolls up the data from lower levels into a higher-level report.

You should enter all your instruments within this tab, including those instruments provided by Peregrine Academic Services as well as other instruments that you use. If the instrument is provided by Peregrine Academic Services, you will be able to pull the results directly into the report in Tab 10. If the instrument is not one provided by Peregrine Academic Services, you will be able to manually enter the results in Tab 10.

9. Mapping Instrumentation to Learning Outcomes. In this step, you map (create a relationship) between the instruments you listed in Tab 8 with the Learning Outcomes from Tab 4.

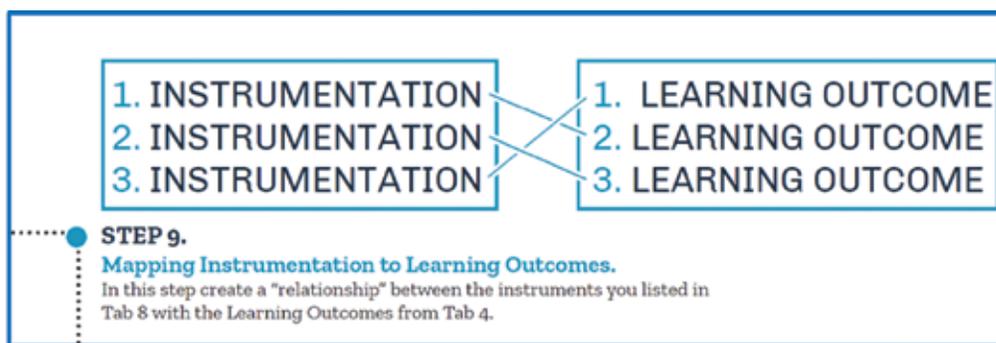


Figure 21.10. Step 9 of the LOM&R Utility.

In this step, you will create relationship(s) between assessment instruments created in Tab 8 and the Learning Outcomes you entered in Tab 4. Such mapping is needed for retrieving or entering the assessment results. All learning outcomes should be mapped to one or more assessment instruments. To map the assessment instrument to the learning outcomes, select assessment instrument on the left and the learning outcome on the right. Using your mouse, drag from the left to the right and create the relationship where a curved line that ends with an arrow will appear. Right-click on the line to view the relationship. Multiple relationships are possible, each shown with a curved line that ends with an arrow.

10. Obtain/Enter Results. In this step, the specific assessment results (the data) are drawn from existing services provided by Peregrine Academic Services or manually entered for services not provided by Peregrine Academic Services. Results (data) from services provided by Peregrine Academic Services are obtained using the PAS Results tab and using the Report Wizard.

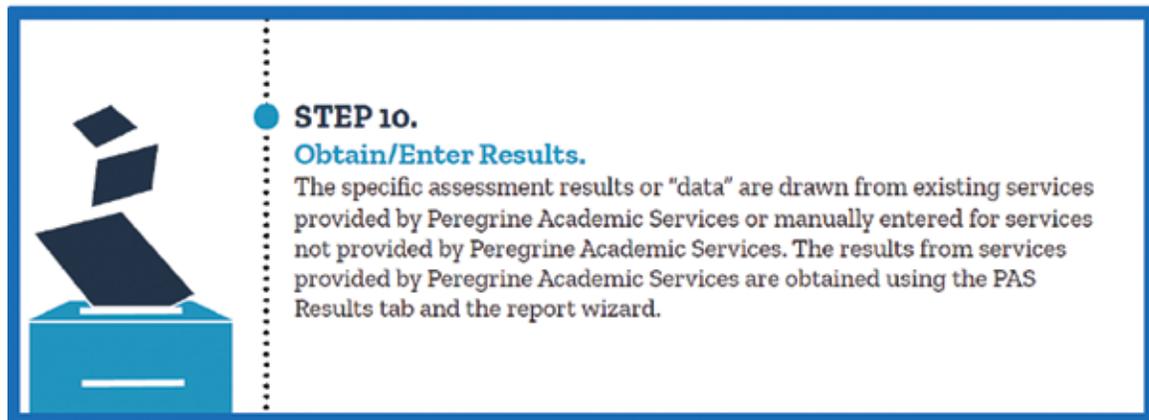


Figure 21.11. Step 10 of the LOM&R Utility.

In this step, the specific assessment results (the data) are drawn from existing services provided by Peregrine Academic Services or manually entered for services not provided by Peregrine Academic Services. Results (data) from services provided by Peregrine Academic Services are obtained using the PAS Results tab and using the Report Wizard.

You will also enter the narrative for the interpretation and analysis of the results.

The instrument/metric is determined based on the mapping of the learning outcomes with the service (assessment or educational course) from the previous step.

After selecting the specific measure, setting the target, and writing the interpretation/analysis of the target, you will import the result based on your specific data. Select the date ranges for the data and the results will be shown. You then select which results to show in the report. A second text box is used to write your analysis of the results. This information will be displayed in the Assessment Results Report.

If your assessment instrument is not one of the services provided by Peregrine, then you will need to manually enter the results.

11. Generate Assessment Reports. The two types of reports included are the Assessment Plan Report (which does not include the assessment results) and the Assessment Results Report (which does include the assessment results). Using the Report Wizard, you will be able to select the academic hierarchical level of the report and the accreditation agency for the report submission.

REPORT

STEP 11.
Generate Assessment Reports.
 The two types of reports included are the Assessment Plan Report, which **does not** include the assessment results, and the Assessment Results Report, which **does** include the assessment results. Using the Report Wizard, you will be able to select the academic hierarchical level of the report and the accreditation agency for the report submission.
 (NOTE: Once steps 1-9 are complete steps 10 and 11 will continuously update the results and the report.)

Figure 21.12. Step 11 of the LOM&R Utility.

The two types of reports included are the Assessment Plan Report (which does not include the assessment results) and the Assessment Results Report (which does include the assessment results). Using the Report Wizard, you will be able to select the academic hierarchical level of the report and the accreditation agency for the report submission.

Assessment & Application

Consider your HEI and your areas of responsibility:

What are your accreditation reporting requirements?

How are the data rolled up and reported for each hierarchical level of your academic institution?

CHAPTER 22:

SUMMARY AND CONCLUSIONS

An evidence approach is based on outcomes assessment and using data from quality assurance processes to improve the teaching and learning environment and to achieve improved student learning outcomes for continuous improvement. In this context, we have attempted to address the spectrum of global to program accreditors, assessment terminology and broad concepts for developing and applying Assurance of Learning practices across many types of institutions for higher learning.

The adoption of AoL as an assessment model, we believe, assures a continuous process by which assessment activities are planned, conducted, evaluated, and results are used for ongoing continuous improvement; a fundamental concept in education quality assurance and assessment of student learning. As a result, bridging the concepts of AoL with the application and uses of Peregrine services complements and demonstrates the use of multiple direct measures for obtaining both valid and reliable results for outcomes evaluation while strengthening overall quality assurance practices in a given program or across higher education institutions.

Thus, an AoL integrated approach to assessment management is defined using a design-based assessment architecture that explores gaps in assessment practices across the institutional hierarchy leveraging a universal and systems approach to Assurance of Learning. Methods for achieving common assessments are designed consistent with the mission of the institution and its programs to augment and strengthen the assessment system at all levels of the institutional hierarchy, ensuring adoption of core practices and meaningful results for the institution.

In addressing the global accreditation assessment criteria and requirements for various programs and institutions, the universal driver for Assurance of Learning is assessment of student learning. The essentials for reporting, demonstrating a process, and producing results for outcomes assessment has been proven to strengthen accreditation reporting, internal academic program review, and academic decision making related to programmatic and curricular changes. As a part of the AoL process, evaluating results and using analyses for academic decision-making and change management are chief considerations for long-term sustainment of assessment systems. The process assures Assurance of Learning goals and assessment activities are well-defined but also remain aligned to the mission, and strategic context for seeking or maintaining an accreditation. As a result, AoL as a process and Peregrine services together support benchmarking and best practices, enable the tying back of results to identified learning objectives, and the streamlining of internal reporting and external reporting to accreditors.

Understanding the strategic context for integrating Peregrine online exams and educational services to meet accreditation standards is central to creating an effective AoL process. Considerable attention is required for planning and managing the process and keeping the end in mind. The workbook guide is intended to work through the early implementation stage considerations through the creation of a mature AoL process. Bringing it all together with the use of the AoL workbook is designed to assist you and your team with getting a jump start on developing a new or strengthening an existing Assurance of Learning process. Here are additional planning strategies and steps for implementing AoL within an accreditation process.

Where to Begin?

- Establish a timeline,
- Decide who should be involved,
- Find the right tools, and
- Communicate the reason for the assessment.

Getting Started

Developing a document map for identifying and planning for quality assurance requirements can assist institutions with assessing prerequisites for pursuing accreditation.

- Integrate the workbook activities into your accreditation and assessment plan.
- Verify the length or timeline for candidacy and/or the cycle for reaffirmation and submitting regular quality reports.
- Validate all assessment data to ensure the minimum data requirements in key standards, principles, and criteria are met.

Figure 22.1 displays key information to include in your matrix and supporting documents and supplemental materials to incorporate in your formal planning document. A document map can help others navigate through a lengthy word document and access key components by identifying different sections in the document and critical information. Document maps are helpful with identifying gaps in information and specifying resources needed to link to appendices or integrate them into the body of the document.

DOCUMENT MAP FOR CLOSING THE LOOP ON QUALITY ASSURANCE AGENCY REQUIREMENTS					
Quality Assurance Agency	Quality Assurance Agency Requirement	Proposed/ Existing Evidence to Support QA Agency Requirement	Semester-Year to address	Who is Responsible for Requirement?	Who Should Be Involved?

Figure 22.1 Document Map for Accreditation & Assessment Planning.

Focusing on Results

- **What data do you have, or need to have, in order to conduct your cyclic programmatic reviews?**
- **Describe how you will communicate and manage change across accreditation standards?**

Data maps are an essential mapping tool for documenting key data objectives and documenting results collected during an assessment cycle. In the planning stages of an accreditation report, data maps can assist institutions with closing gaps for addressing assessment standards and criteria by illustrating key data points needed for sufficiently meeting accreditation minimum requirements for assessment reporting.

	Key Data Objectives	DP-1 (Semester 201X)	DP-2 (Semester 201X)	DP-3 (Semester 201X)	DP-4 (Semester 201X)	DP-5 (Semester 201X)	Data Analysis	Linkage to (Curricular Change)	Linkage to Other Standards
College Wide Learning Outcomes									
College Wide Learning Outcomes Continous Improvement (Successive Data)									
Program 1 Learning Outcomes									
Program 1 Learning Outcomes Continous Improvement (Successive Data)									
Program 2 Learning Outcomes									
Program 2 Learning Outcomes Continous Improvement (Successive Data)									

Figure 22.2 Data Map for Documenting Existing Results and Proposed Minimum Data Requirements.



Figure 22.2 displays key information to include in your matrix such as proposed data objectives (measures, metrics, and targets for learning outcomes) and the data points by semester and year for achieving the minimum requirements. Map all data objectives for each student learning outcome at the various levels as deemed by the Assessment Plan in alignment with the institutional hierarchy outcomes as needed using a data map like the one illustrated below.

Identifying Your Next Steps

The checklist below is designed to self-assess where you are in the Assurance of Learning and accreditation process. Determine the status of each and devise a detailed action plan to complete your accreditation roadmap (accreditation project plan), assessment plan, data maps, execution of accreditation key requirements, and strategic plan.

Planning Checklist

Accreditation Roadmap

- Not Started
- In Progress
- Complete

Assessment Plan

- Not Started
- In Progress
- Complete

Assessment Data Map

- Not Started
- In Progress
- Complete

Gap Identification of Accreditation Key Requirements

- Not Started
- In Progress
- Complete

Strategic Plan

- Not Started
- In Progress
- Complete

REFERENCES AND RESOURCES

US Regional HE Accreditors

Higher Learning Commission	http://www.hlcommission.org/
Middle States Commission on Higher Education	http://www.msche.org/
North Central Association Commission on Accreditation and School Improvement, Board of Trustees	http://cihe.neasc.org/
North Central Association Commission on Accreditation and School Improvement, Board of Trustees	http://www.ncacasi.org/
Northwest Commission on Colleges and Universities	http://www.nwccu.org/
Southern Association of Colleges and Schools, Commission on Collegesmission	http://www.sacscoc.org/
Western Association of Schools and Colleges, Accrediting Commission for Schools	http://www.wascweb.org/
List of All USDE Recognized Accreditors	https://ope.ed.gov/accreditation/agencies.aspx

Higher Learning Commission Scope of recognition: the accreditation and pre-accreditation (“Candidate for Accreditation”) of degree-granting institutions of higher education in Arizona, Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Ohio, Oklahoma, South Dakota, West Virginia, Wisconsin, and Wyoming, including the tribal institutions and the accreditation of programs offered via distance education and correspondence education within these institutions.

<http://www.hlcommission.org/>

Middle States Commission on Higher Education Scope of recognition: the accreditation and pre-accreditation (“Candidacy status”) of institutions of higher education in Delaware, the District of Columbia, Maryland, New Jersey, New York, Pennsylvania, Puerto Rico, and the U.S. Virgin Islands, including distance and correspondence education programs offered at those institutions.

<http://www.msche.org/>

New England Association of Schools and Colleges, Commission on Institutions of Higher Education Scope of recognition: the accreditation and pre-accreditation (“Candidacy status”) of institutions of higher education in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont that award bachelor’s, master’s, and/or doctoral degrees and associate degree-granting institutions in those states that include degrees in liberal arts or general studies among their offerings, including the accreditation of programs offered via distance education within these institutions. **<http://cihe.neasc.org/>**

North Central Association Commission on Accreditation and School Improvement, Board of Trustees Scope of recognition: The accreditation and pre-accreditation (“Candidacy status”) of schools offering non-degree, postsecondary education in Arizona, Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Ohio, Oklahoma, South Dakota, West Virginia, Wisconsin, Wyoming, and in the Navajo Nation. The scope of the Department’s recognition does not extend to any institution or program accredited or pre-accredited for the first time on or after March 15, 2012. **<http://www.ncacasi.org/>**

Northwest Commission on Colleges and Universities Scope of recognition: the accreditation and pre-accreditation (“Candidacy status”) of postsecondary degree-granting educational institutions in Alaska, Idaho, Montana, Nevada, Oregon, Utah, and Washington, and the accreditation of programs offered via distance education within these institutions. **<http://www.nwccu.org/>**

Southern Association of Colleges and Schools, Commission on Colleges Scope of recognition: the accreditation and pre-accreditation (“Candidate for Accreditation”) of degree-granting institutions of higher education in Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia, including the accreditation of programs offered via distance and correspondence education within these institutions. This recognition extends to the SACSCOC Board of Trustees and the Appeals Committee of the College Delegate Assembly on cases of initial candidacy or initial accreditation and for continued accreditation or candidacy. **<http://www.sacscoc.org/>**

Western Association of Schools and Colleges, Accrediting Commission for Schools Scope of recognition: the accreditation and pre-accreditation (“Candidate for Accreditation”) of adult and postsecondary schools that offer programs below the degree level in California, Hawaii, the United States territories of Guam and American Samoa, the Republic of Palau, the Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, and the Republic of the Marshall Islands. **<http://www.wascweb.org/>**

List of All USDE Recognized Accreditors. **<https://ope.ed.gov/accreditation/agencies.aspx>**

Global HE Accreditors

AACSB International—The Association to Advance Collegiate Schools of Business (AACSB) — Standard 8	http://www.aacsb.edu/
Accreditation Council for Business Schools & Programs (ACBSP) — Standard 4	http://www.acbsp.org/
The Association of MBAs (AMBA) — Principle 6, 7, 8	http://www.associationofmbas.com/
European Foundation for Management Development (EFMD) — Chapter 2: Programmes	http://www.efmd.org/
International Accreditation Council for Business Education (IACBE) — Principle 1	http://iacbe.org/

Assurance of Learning Resources

National Institute for Learning Outcomes Assessment	http://www.learningoutcomesassessment.org/
Assessment Commons	http://assessmentcommons.org/#inst
QAA	http://www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code
Assessment Standards Knowledge Exchange	http://www.brookes.ac.uk/aske/

GLOSSARY OF TERMS

Assurance of Learning — Assurance of Learning refers to processes for demonstrating that students achieve learning expectations for the programs in which they participate. Schools use Assurance of Learning to demonstrate accountability and assure external constituents such as potential students, trustees, public officials, supporters, and accrediting organizations, that the school meets its goals. Assurance of learning also assists the school and faculty members to improve programs and courses.

Benchmarking — Benchmarking is a process for setting standards leading to best practices in learning and achievement. Stated more simply, benchmarking can raise standards in education by creating a model for excellence and achievement.

Closing the Loop — Closing the Loop, or CTL, refers to a wide variety of outcomes and actions that result from an institution's review and consideration of student learning outcomes assessment data. Critical to this process is that these revisions are made on the basis of qualitative and quantitative data that are gathered systematically, not on the basis of anecdotal evidence or intuition. CTL outcomes and actions tend to fall into the following categories: Making Improvements to Teaching, Courses, or Curricular Programs, Disseminating Assessment Results to Appropriate Members of the Campus Community, Evaluating and Revising the Assessment Process, Guiding the Planning and Implementation of Professional Development Activities.

College Learning Outcome — College learning outcomes are statements that describe significant and essential learning that learners have achieved as a part of completing a program or core plan of study within a given school or college. In other words, college learning outcomes identify what the learner will know and be able to do as a result of completing a program or plan of study within a given school or college

Course Learning Outcome — Course learning outcomes are statements that describe significant and essential learning that learners have achieved and can reliably demonstrate at the end of a course. In other words, course learning outcomes identify what the learner will know and be able to do by the end of a course

Department Learning Outcome — Department learning outcomes are statements that describe significant and essential learning that learners have achieved as a part of completing a program or plan of study. In other words, departmental learning outcomes identify what the learner will know and be able to do as a result of completing a program or plan of study within a given department.

Goals — Goals of the Program (or Department) Goals are broad, general statements of what the program, course, or activity intends to accomplish. Goals describe broad learning outcomes and concepts (what you want students to learn) expressed in general terms (e.g., clear communication, problem solving skills, etc.) Goals should provide a framework for determining the more specific educational objectives of a program and should be consistent with the mission of the program and the mission of the institution. A single goal may have many specific subordinate learning objectives.

Institutional Effectiveness — Institutional effectiveness is the degree to which a university is meeting its stated mission. It is based on an impact-oriented philosophy of continuous organizational improvement. The effectiveness of an institution is not captured in what is taught and how, but rather in what students have learned.

Institutional Hierarchy — System Administration architecture for developing or customizing an info systems platform to mirror the organizational hierarchy by which the user Interface is designed to incorporate how data is collected, reviewed, and managed for assessment purposes. It requires specifying key information based on the academic unit levels, such as college or school, programs and or departments, etc.

Institutional Learning Outcome — Institutional learning outcomes are statements that describe significant and essential learning that learners have achieved as a part of completing a general education program and or specific disciplinary plan of study. In other words, institutional learning outcomes identify what the learner will know and be able to do as a result of completing the given program or academic plan of study within a school or college at a given institution.

Learning Outcomes — Student learning outcomes statements clearly state the expected knowledge, skills, attitudes, competencies, and habits of mind that students are expected to acquire at an institution of higher education.

Measure — Educational measurement refers to the use of educational assessments and the analysis of data such as scores obtained from educational assessments to infer the abilities and proficiencies of students.

Objectives — Objectives are brief, clear statements that describe the desired learning outcomes of instruction; i.e., the specific skills, values, and attitudes students should exhibit that reflect the broader goals.

Outcome Mapping — Outcome mapping focuses on one specific type of result: outcomes as behavioral change. Outcomes are defined as changes in the behavior, relationships, activities, or actions of the people, groups, and organizations with whom a program works directly. In education assessment, outcomes mapping seeks to describe the relationship between essential learning and a hierarchy of arching goals that meet both the desired individual and transformative learning goals of all learners within a given program study. Outcomes mapping expresses the desired outcomes in a logical manner according to the expressed or intended curriculum and differs from curriculum mapping, which focuses on given opportunities to reform and cohesively construct alignments within a program or academic plan of study.

Outcomes Assessment — Outcomes assessment in higher education may be defined as a “process of providing credible evidence of resources, implementation actions, and outcomes undertaken for the purpose of improving the effectiveness of instruction, programs, and services in higher education” (Banta & Palomba, 2015, p. 2).

Program Learning Outcome — Program learning outcomes are statements that describe significant and essential learning that learners have achieved and can reliably demonstrate at the end of a program. In other words, program learning outcomes identify what the learner will know and be able to do by the end of a program. They are usually tied downward to course learning outcomes and upwards to departmental, college, and or institutional learning outcomes.

Programmatic Assessment — An assessment that is focused on learning outcomes which are identified for an entire program, not merely a course or module.

Raw Score — The raw score is the number of items a student answers correctly without adjustment for guessing. For example, if there are 15 problems on an arithmetic test, and a student answers 11 correctly, then the raw score is 11. Raw scores, however, do not provide us with enough information to describe student performance.

Target — The desired level of performance you want to see, as measured by indicators, that represents success at achieving your outcome

WORKING WITH PEREGRINE GLOBAL SERVICES



Peregrine Pathways is the publishing division of Peregrine Global Services, which is headquartered in Gillette, Wyoming. Peregrine Pathways is dedicated to lifelong leadership development, recognizing that leadership is a journey, not a destination.

Peregrine Global Services includes two interrelated companies — Peregrine Academic Services and Peregrine Leadership Institute, our nonprofit foundation — Peregrine Global Foundation, and our strategic partners and associates. Together, we develop values-based leaders and impact the quality of higher education throughout the world by leveraging a diversity of talents across a broad spectrum of disciplines, backgrounds, experiences, and cultures. Through our individual and collective efforts, we enrich, enlighten, and invigorate not only our clients, but ourselves as well.

Our distinction lies within the areas of leadership and higher education. We provide excellence in customer service and professionalism. We apply thought-partner approaches to problem-solving and organizational strategic development.

Our strategy is to learn and understand your needs first, then provide specific services in leadership development and higher education support that are aligned with your goals and objectives. Together, we will make a difference in our world.

Peregrine Leadership Institute



Peregrine Leadership Institute (PLI) was formed in 2004 as a Limited Liability Company registered in Wyoming, U.S.A. and subsequently as an S-Corp in 2006. The Institute employs experienced leadership consultants who provide consulting services, training workshops, and leadership seminars. Institute's clients include both private and public-sector organizations. Our focus is on values-based leadership, workplace application, and quality.

The Institute has provided leadership and management development services for over 300 client organizations located throughout the U.S. and around the world. Client organizations include publicly owned companies, small business, higher education institutions, non-profit organizations, and government agencies (federal, state, and local).

PLI has a strategic alliance with the Life and Career Design Consulting GmbH of Vienna, Austria. The Institute is a member of the Society for Human Resource Management and the Chamber of Commerce.

PLI sustains individual memberships with a variety of professional associations, including the Society of Human Resource Management.

The Peregrine Leadership Institute includes professionals with practical, real-world experience. Leadership facilitators have the right combination of professional training, practical experience, and the values-based competency needed to facilitate impactful workshops and seminars and conduct human resource management consulting.

Leadership seminars and team development workshops focus on application and topical areas include strategic planning, executive leadership, coaching and mentoring, character leadership, workplace compliance, performance management, team development, governance, overcoming conflict, and leading change.

EvaluSkills: Workplace Skills Assessment includes an online 360° Leadership Assessment service that helps participants assess their leadership strengths and opportunities for further development.

Our Executive Leadership Program is based on the Baldrige Excellence Framework, designed to develop senior leaders who can lead change, grow organizational capacity, evaluate performance, and respond effectively to the uncertain strategic environment.

Peregrine's Online Leadership Courses for business leadership includes courses focused business writing fundamentals, leadership communications, leadership essentials, leading teams, dealing with workplace conflict, leading change, and leading the leaders. The courses are designed to help team leaders, supervisors, managers, and other high-potential employees hone their leadership capabilities through online short courses. Each course is organized into eight modules with instructional content and post-course assessment.

Peregrine Academic Services



Peregrine Academic Services (PAS) was formed in 2009 as a Limited Liability Company registered in Wyoming, U.S.A. and subsequently as an S-Corp in 2013. Primary services include online assessment services used for academic programmatic evaluation, online courses and programs, and higher education support services.

Our focus is on applied, relevant solutions to the challenges of higher education development, delivery, governance, and evaluation based on our diversity of personnel and their practical experiences. More than simply a service provider, PAS is a thought-partner in higher education and has been internationally recognized for excellence in service as the global leader for higher education services.

PAS clients currently include over 500 universities located within 45 countries and throughout the United States. We have provided academic consulting services in Mongolia, Europe, East Asia, South America, North America, and Africa.

PAS has ongoing consulting projects and online educational assessment and development services in Europe, Africa, and Asia with both institutions of higher education as well as with academic organizations related to accreditation, organizational development, program evaluation, strategic planning, and knowledge capacity development.

PAS established international offices in Mongolia in 2012, in Australia in 2013, and an office in Europe in 2014. Regional office personnel include both client management and academic consulting capabilities.



Our core competencies include planning, developing, and growing institutional and programmatic accreditation organizations that are outcomes-based and quality-focused. Relatedly, we create regional centers of excellence for quality assurance and develop the knowledge capacity in others for strategic sustainability.

Academic consulting services are offered to both accreditation organizations and institutions of higher education for quality assurance, leadership, and sustainability. We conduct training workshops and seminars focused on strategic planning, learning outcomes assessment, academic program development, accreditation self-study preparation, and institutional effectiveness.

For accreditation organizations, we offer consulting services related to recognition by national or global bodies such as CHEA or EQAR, and reviewing, developing, and improving accreditation standards and principles.

PAS offers the Business School Resource Center that helps arm the next workforce generation with the tools, insights, connections, and opportunities that are critical to their success. The Business School Resource Center provides online, easily accessible, low cost weekly news content for instruction. The center is highly integrative and fosters more informed and increased engagement of learners by enabling custom quiz and exam creation based on articles and real-world concepts being taught in the classroom. The globally centric service transforms students into active learners and participants with applied learning, self-reflection, and competency-based critical thinking.

Our network of organizational associations allows Peregrine personnel to leverage a host of global perspectives related to higher education.

PAS personnel hold several professional licenses and certifications related to the profession and higher education. Collectively, these memberships expand the network of PAS to include others throughout the globe within a variety of academic discipline areas.

PAS personnel and available consultants include a variety of professionals with a diverse set of skills and experience related to nearly all aspects of higher education. Available organizational sets of expertise include:

- Academic credit systems and articulation;
- Faculty development;
- Financial management and accounting systems;
- Higher education policy and strategy; curriculum, teaching, and learning;
- Marketing strategy;
- Online education development;
- Program accreditation for business, engineering, technology, agriculture, medical, and natural sciences;
- University governance and administration;
- University partnership and stakeholder management.

Peregrine's internationally normed, summative assessment services in **Business Administration and Management** address quality assurance associated with AACSB, ACBSP, IACBE, AMBA, and EMFD accreditation requirements. The customizable service is available in English, Spanish, French, German, Portuguese, Russian, and Mongolian for undergraduate and graduate programmatic assessment.

Offered primarily within the US, PAS provides assessment services for the academic disciplines of **General Education, Early Childhood Education, Healthcare Administration, Accounting/Finance, Criminal Justice, and Public Administration**. Each of these services is aligned with the Assurance of Learning requirements stated by the accreditation or certification agency.

The **Academic Leveling Course** service includes courses in Accounting, Business Ethics, Business Finance, Business Integration and Strategic Management, Business Leadership, Global Dimensions of Business, Human Resource Management, Information Management Systems, Legal Environment of Business, Macroeconomics, Marketing, Microeconomics, Operations/Production Management, Organizational Behavior, and Quantitative Business Research Techniques and Statistics. Each course includes a pre-test, 4-6 hours of online instructional material, and a post-test. The courses promote student retention, improves graduation rates, and are designed to satisfy several accreditation requirements.

Write & Cite: An Academic Writing Readiness Course provides both undergraduate and graduate students the skills and knowledge needed to write, format, and properly cite academic papers, theses, and dissertations. The 8-section course, each with 3-5 learning modules, can be customized to teach APA, MLA, or CMS citation styles along instruction regarding proper word choices, tone, plagiarism, paper organization, and literature-based research.

The **Launch & Learn: Online Courses and Programs** service includes the instructional content, course guides, assessment plans, and faculty training for universities to offer online or blended courses to supplement any academic business program with business, business-related, and research courses. Launch & Learn can also be used to create online/blended concentrations and complete academic degree programs (MBA and DBA/DM). Collectively, Launch & Learn helps universities expand their market potential.

The **EvaluSkills: Workplace Skills Assessment** service includes a workplace skills assessment used to evaluate the soft skills of the students and employees based on perspectives of evaluators who are familiar with the assessed individual. Colleges and universities typically have intended learning outcomes (ILOs) related to the employability of graduates and/or proficiency with specified soft skills. Higher education institutions can use EvaluSkills to measure the employability (employment readiness) of its graduating students. The instrumentation of the tool by program faculty, employers, internship supervisors, and perhaps fellow students would support outcomes attainment and strengthen assessment of soft skills. School officials can also use EvaluSkills for staff/employee evaluation, although a slightly different instrument would be used compared to the instrument used for evaluating students.

The **Business School Resource Center** includes an on-line library of news articles with classroom-ready lessons plans that faculty use to link academic theory with application. The Center includes an assessment platform with questions organized by Bloom's Taxonomy to evaluate both knowledge and competencies. The service is used to help satisfy accreditation requirements related to competency assessment, internationalization, relevancy, global awareness, career readiness, and critical thinking.

Peregrine Global Foundation



The Peregrine Global Foundation was established in 2018 as a not-for-profit charitable organization that helps promote the vision of Peregrine Leadership Institute and Peregrine Academic Services. The Foundation offers grants to entities engaged in improving the quality of higher education and developing the leadership capacity for the betterment of society.

For more information about our leadership seminars, workshops, and online leadership courses, please contact us at Info@PeregrineLeadership.com, **1 800 260-1555**, or at www.PeregrineLeadership.com.

For more information about our online and consulting services for higher education, please contact us at Info@PeregrineAcademics.com, **1 800 260-1555**, or at www.PeregrineAcademics.com.

For more information about the Peregrine Global Foundation, please contact us at Info@PeregrineGlobalFoundation.org, **1 800 260-1555**, or at www.PeregrineGlobalFoundation.org.

BRIEF BIOGRAPHIES OF THE AUTHORS



Olin O. Oedekoven, PhD.

Dr. Oedekoven has devoted his career to leading effective teams and improving performance in higher education through strategic planning, staff/faculty development, accreditation reviews, quality assurance, academic research, and governance. With a Doctorate in Business Administration with specializations in Management and Public Administration from Northcentral University, a postdoctoral program in human resource management, and his military experience leading 2,000+ soldiers as Brigadier General in the Army National Guard, Dr. Oedekoven has nearly 40 years of senior leadership, education, and academic experience through service in both the public and private sectors.



William Parrott, M.A.

For over 30 years, William (Bill) Parrott has worked in quality assurance and academic program development. Bill is an expert in the implementation of continuous improvement including program assessment. Before joining our team, Bill spent 13 years with International Assembly for Collegiate Business Education (IACBE). Bill has traveled to over 200 institutions of higher learning and reviewed 1000+ degree programs in more than 20 countries and within the US. Bill has reviewed accreditation documents, developed new academic programs, updated existing programs, and consulted with program administrators to enhance their ability to accomplish their goals.



Paul Mallette, MBA

Paul has more than 30 years of experience in higher education in both teaching and administrative positions, including the higher education quality assurance work where he specialized in business program accreditation, in the US, Europe, the Middle East, and Asia. In addition to his teaching and quality assurance work, Paul has served as Director of Training at International Masters Publishers in Paris and Director of Admissions at Clark University's Graduate School of Management in Worcester, Massachusetts. A native of Boston, he received his Bachelor of Science degree from Boston University, his MBA from Clark University, and a Certificate of Management Studies from Harvard University's Division of Continuing Education.



Clarice Tate, MBA, M.Ed.

Clarice Tate has over 20 years combined experience in the public and private sectors, including nonprofit organizations, primarily focused on business development, consulting, research, and administration. Within the education sector she served as a secondary classroom teacher and higher education administrator. Her higher education experience includes accreditation management, human resource management, and project management. She holds a Master of Education from Coppin State University and Master of Business Administration from the Smith School of Business, University of Maryland College Park.



Mick Thomas, M.A., SPHR

Mick has over 30 years of experience in both the public and private sectors with both for-profit and non-profit organizations. His responsibilities have included organizational leadership, quality and continuous improvement, project and people management, HR management, university administration, R&D, and Environment, Health and Safety. Mick holds a Bachelor of Engineering and a Master of Arts in Organizational Management as well as professional certifications from the Society of Human Resource Management, the American Society of Training and Development, and is Six Sigma certified.



Deborah Robbins, MPA, SPHR, SHRM-SCP

Debbie has over 30 years of experience within nearly every organizational level of higher education and business from faculty/first-line employee to senior leadership. She has worked in the public sector, private sector, and with non-profit organizations. She holds a Bachelor of Science degree in Personnel Management and Industrial Relations and a Master of Public Administration from the University of Wyoming.



Alimaa Jamiyansuren, M.A.

With 25 years of experience as an international economist and higher education consultant, Alimaa has worked at leading US economic consulting companies, such as NERA Economic Consulting, Princeton Economics Group, CRA Charles River Associates, and privately, on issues related to economics and antitrust economics, business, higher education, public relations/communications, and leadership. Alimaa's fields of expertise include higher education accreditation and assessment, academic program curriculum, student career readiness and academic success, communications, training, econometric modeling, and economics.



Christina Perry, M.S.

Christina is a project coordinator at Peregrine Academics, with educational experience in the U.S. and Canada, South America, and Europe. She values diversity and questioning one's biases through exploring global perspectives: she earned an International Baccalaureate through United World Colleges as a teen, studied abroad in Argentina, and worked in elementary and higher education in France and the United States. She has a M.S. in Project Management and Operations Research and seeks to make in the world of business by matching strategic goals to actionable projects.



Matthew Ramey, MBA

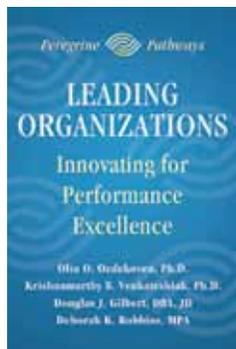
Matthew has over 30 years of experience in both the private and public sectors. Ranging from construction and technology to higher education. He has held positions from technician to faculty, from first-line supervisor to senior leadership. He holds a Bachelor of Science degree in Management and a Master of Business Administration. He is currently in the process of completing a Doctorate in Educational Leadership through the University of Wyoming.



Doug Gilbert, JD, DBA

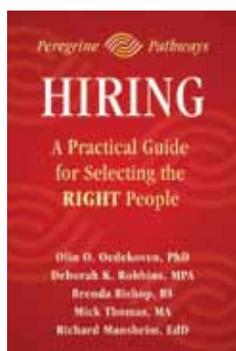
Doug Gilbert has held a range of leadership positions in the private sector, in academia, and in U.S. federal and local government. He has worked in the legal profession, industry, and management consulting, including several international leadership roles at Novartis AG, in Basel, Switzerland, and strategy and transformation consultant for Ernst & Young and Gemini Consulting in life sciences and biotech. He was also an attorney law clerk for the Hon. Warren K. Urbom, Chief Judge of the U.S. District Court in Nebraska. Doug holds a Juris Doctorate from the University of Iowa, an MBA from IMD in Switzerland, and a Doctor of Business Administration from the University of Phoenix.

PUBLICATIONS BY PEREGRINE PATHWAYS



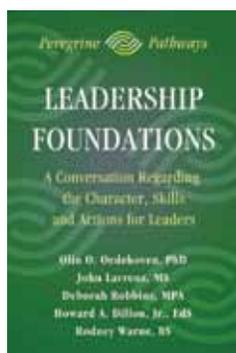
Oedekoven O. O., K. B. Venkateshiah, D. J. Gilbert, & D. K. Robbins (2019). ***Leading Organizations: Innovating for Performance Excellence*** Gillette, Wyoming: Peregrine Pathways.

Leading Organizations embraces the new and different realities that are facing organizations today. Leaders want to know how to address the world that is evolving and unfolding. It is time to move beyond the leadership flavor of the month and practice what successful strategic leaders know — they must be open-minded and accept divergent views without bias.



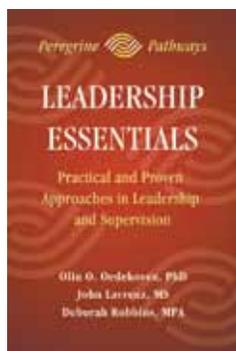
Oedekoven, O. O., D. K. Robbins, B. Bishop, M. Thomas, & R. Mansheim. (2018). ***Hiring: A Practical Guide for Selecting the Right People*** Gillette, Wyoming: Peregrine Pathways.

The hiring you do today will determine the kind of culture, service standards, and reputation you have tomorrow. It will determine your future success, and that of your customers and business partners. In Hiring, we take you through the needed steps to identify, recruit, and select the RIGHT people for your organization.



Oedekoven, O. O., D. K. Robbins, J. Lavrenz, H. A. Dillon, Jr., & R. Warne. (2018, 2015). ***Leadership Foundations: A Conversation Regarding the Character, Skills, and Actions for Leaders***. Gillette, Wyoming: Peregrine Pathways.

Written by leaders for leaders, Leadership Foundations is an extensive dialogue on leadership designed to promote values-based leaders at all organizational levels, from first-line supervisor through senior executive. As the name implies, the book establishes the foundation for successful leadership, people who know their skills, exemplify their values, and do leadership that inspires others to achieve their potential.



Oedekoven, O.O., Lavrenz, J., & Robbins, D.K. (2018, 2014). ***Leadership Essentials: Practical and Proven Approaches in Leadership and Supervision*** Gillette, Wyoming: Peregrine Pathways.

Successful leaders understand that leadership is all about walking the talk. Leaders must fight through the chaos of the moment to see and understand the perspective of the situation. Leadership Essentials provides relevant, practical, and substantive tips and techniques to walk the talk of leadership by knowing the values of the leader, the skills of the leader, and the actions of leadership.

ONLINE LEADERSHIP DEVELOPMENT COURSES

The following short courses for business leadership development are available on our website at: <http://www.peregrineleadership.com/Courses>.



Business Writing Fundamentals

In this course you will learn the basics of writing a business letter, preparing a report, writing for a publication such as a peer-review journal or a book, and choosing appropriate methods or technology to send your message. These tools can advance your writing both in the business world, and beyond.



Leadership Communications

Whether you are introducing new directives, setting standards, or pursuing goals, your ability to connect, engage, and convey a message can make all the difference in your success. These skills are useful not only for improving workplace output and connection, but also for bringing increased satisfaction throughout your life.



Leadership Essentials

Becoming the kind of leader who inspires, engages, and motivates takes many different qualities. Not only do you need strong knowledge and expertise in your field, you also need to understand what leadership is and what it means to lead by example. In this course, get ready to think about what you really value and how to bring more of that into your leadership.



Leading Teams

This course will outline what you need to understand to plan, build, and lead the most effective and productive teams possible. When you become a leader who can lead a team to this level, you become the kind of leader who is most in demand: someone who leads others to realize their full potential.



Managing Conflict

Some kinds of conflict push us to re-examine what we think we know and strive to be our best. This course looks at different kinds of conflict and how to best deal with them, including what to do when conflict happens, how to minimize or remove barriers to conflict resolution, how to handle high maintenance relationships, and some tried-and-true rules for conflict resolution.



Leading Change

Change is what leads to growth and innovation and yet, for many of us, change can be hard. This is increasingly true in today's world where change barrels at us fullspeed, often before we've even caught up with whatever happened last. This course will help you understand how to lead through change in a way that soothes fears and keeps your workplace thriving.



Leading the Leaders

In this course, you will delve into the principles of higher leadership, look at practical applications of leadership, and gain tools for working with people and inspiring yourself and others. One important aspect of this level of leadership is mentoring, and you'll go into detail on preparing the next generation of leaders through mentorship. In the end, what it means to walk the path of a leader is different for each of us.



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