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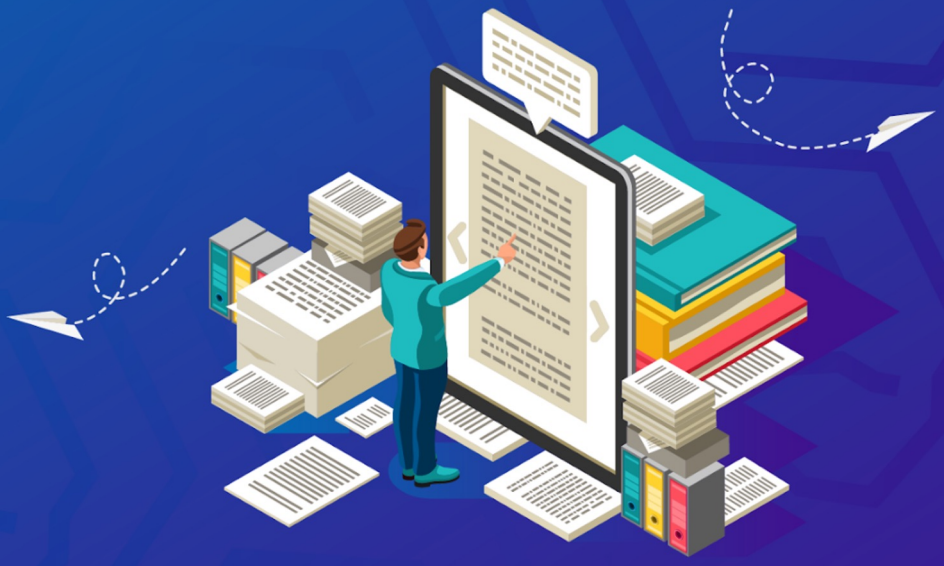

Guide for Measuring and Evaluating Program Learning Outcomes at Saudi Electronic University

(According to the PDCA Model for Academic Quality Assurance and Continuous Improvement)

Document Modification History

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Guide Contents

Guide Contents

Introduction

This guide aims to establish a comprehensive and integrated framework for measuring and evaluating learning outcomes at Saudi Electronic University, in alignment with national and international academic quality standards, while considering the specifics of blended learning, the diversity of branches, and student demographics. It serves as a detailed reference to assist faculty members, program coordinators, quality committees, and relevant entities in the effective and systematic design, implementation, and follow-up of assessment and evaluation processes. This ensures the achievement of educational program goals and enhances the quality of graduates in line with the changing demands of the labor market.

The importance of this guide stems from the urgent need for a clear and well-structured methodological mechanism that contributes to the continuous and sustainable improvement and development of the educational process by providing accurate and reliable data used as a basis for informed decision-making regarding improvement and development. This, in turn, enhances the university's competitiveness both locally and internationally and supports its vision of being a leading institution in e-learning and blended education.

The guide is based on the PDCA (Plan – Do – Check – Act) model as a core framework that ensures the organization of the educational process in sequential stages starting with careful planning, followed by systematic implementation, accurate verification of results, and finally taking improvement actions based on reliable and sustainable analysis. This model enables the university to sustain quality and academic excellence across all its programs.

The guide targets all stakeholders involved in the educational process, including faculty members, program coordinators, quality committees, academic administrations, students, accreditation bodies, and external reviewers. It provides them with a clear and unified reference that facilitates understanding and implementation of the standards and practices for effective and reliable measurement and evaluation of learning outcomes.

This guide is closely linked to the learning, teaching, and assessment strategy adopted by the Saudi Electronic University, which focuses on delivering high-quality education that supports blended learning and flexibly responds to labor market needs and national development goals in accordance with Vision 2030. It also ensures continuous alignment between educational objectives and assessment results to enhance the effectiveness of academic programs and the quality of their outcomes.

Table of Key Terms and Concepts in Measuring and Evaluating Learning Outcomes

Term	Definition	Example
Assessment Tool:	The method or instrument used to collect evidence regarding the achievement of learning outcomes, such as exams, projects, and surveys	Achievement test, group project, student satisfaction survey
Target:	The level or percentage predetermined as a benchmark for achieving a specific learning outcome	75% of students scoring 70% or above on a specific test
Academic Accreditation:	A formal evaluation process of educational programs to ensure alignment with national or international quality standards	Accreditation of a specific program by the Education and Training Evaluation Commission
Formative Assessment:	Ongoing assessment conducted during the educational process to improve student learning and provide constructive feedback	Quizzes, ongoing performance reviews
Summative Assessment:	Assessment conducted at the end of a course or program to determine the extent of student achievement of learning outcomes	Final exam, graduation project
Graduate:	A student who has completed all program requirements and is awarded the qualification	A graduate of the Bachelor of Business Administration program
Graduate Attributes (GA):	A set of skills, abilities, and values expected of graduates upon completion of the academic program	Critical thinking, teamwork, social responsibility
Self-Study Report:	A report prepared by the academic unit to evaluate the quality of the program based on evidence and indicators	Periodic report outlining assessment results and improvements

Table of Key Terms and Concepts in Measuring and Evaluating Learning Outcomes

Term	Definition	Example
PLOs Assessment Plan:	A document that outlines how and when program learning outcomes will be assessed, the tools used, and assigned responsibilities	Assessment plan for the Business Administration program for the academic year 2024
PLOs Assessment Report:	A report that presents assessment results, analyzes performance gaps, and recommends program improvement plans	Annual performance report for assessing the Accounting program outcomes
Internal Benchmark:	A performance standard derived from previous internal data to compare with current performance	Comparing current semester student results with those of the previous semester
External Benchmark:	A performance standard derived from external standards or data for comparison	Comparing program performance with national accreditation standards
Direct/Indirect Measurement Ratio:	The recognized ratio between direct and indirect assessment tools in evaluating learning outcomes	70% direct and 30% indirect
PDCA Cycle:	A quality management model consisting of four stages: Plan, Do, Check, and Act	Implementing an improvement plan based on student assessment results
Learning Outcomes:	The educational results a student is expected to achieve by the end of a course or program, including knowledge, skills, and values	The student's ability to interpret marketing strategies
Program Learning Outcomes (PLOs):	General learning outcomes for the entire program, focusing on the skills, knowledge, and values that graduates should possess	The ability to analyze market data to make marketing decisions
Course Learning Outcomes (CLOs):	Specific learning outcomes for a given course that support the achievement of the program outcomes	The student's explanation of basic financial accounting concepts

Table of Key Terms and Concepts in Measuring and Evaluating Learning Outcomes

Arabic Term	English Term	Definition	Illustrative Example
المواءمة	Alignment	Logical alignment between learning outcomes, teaching strategies, and assessment tools to ensure objective achievement.	Linking program learning outcomes with course outcomes and student assessments
الروبرك	Rubric	An assessment tool containing various criteria and performance levels to accurately and objectively measure a specific learning outcome	A rubric for assessing student performance in a research project.
نواتج التعلم التخصصية	Key Learning Outcomes (KLOs)	Learning outcomes specified in the specialized standards issued by the Education and Training Evaluation Commission	Accounting program outcomes that align with national commission standards
وزن مخرج التعلم حسب الفرع	Weight of Learning Outcome by Branch	The percentage of influence of a specific branch on learning outcome results based on the number of students in that branch	Riyadh branch constitutes 60% of the program's students, and thus 60% of the weight

Chapter I

Planning (Plan)

1. Planning (Plan)

Introduction

The planning phase represents the foundational step in the continuous quality improvement cycle (PDCA) for measuring and evaluating learning outcomes in academic programs. This stage serves as the cornerstone upon which all subsequent assessment phases are built. During this stage, the targeted learning outcomes are identified and formulated in a precise and measurable manner, in addition to designing a comprehensive plan for the assessment and evaluation process.

Through this guide, the Saudi Electronic University seeks to provide a clear and systematic framework that enables faculty members and academic program coordinators to build an effective assessment plan aligned with both national and international quality standards. This chapter aims to clarify the importance of learning outcomes and their central role in enhancing the educational process and ensuring the achievement of the academic and professional goals the university aspires to.

In the following sections, we will detail the concept of learning outcomes, their characteristics, types, and significance to all stakeholders, with a focus on their alignment with national and disciplinary frameworks, as a prelude to developing an accurate assessment plan in the upcoming chapters.

1.1 The Importance of Learning Outcomes in Higher Education

Learning outcomes play a fundamental role in improving the quality of higher education. They express the competencies that students are expected to acquire by the end of their studies—whether in terms of knowledge, skills, or values. These outcomes serve as the cornerstones upon which all aspects of the educational process are built, from curriculum design to teaching and assessment methods.

Learning outcomes help clarify expectations for students, enhancing their understanding of educational goals and increasing their motivation for success. They also provide faculty with a clear framework for designing teaching and assessment plans that effectively achieve these outcomes, thereby raising the overall quality of education.

Moreover, learning outcomes are a pivotal tool for managing academic quality within the university. They are used to evaluate academic programs, identify performance gaps, and support evidence-based decision-making for educational improvement. They also play a significant role in the academic accreditation process, as national and international accrediting bodies require the presence of clear and measurable learning outcomes.

1. Planning (Plan)

For external stakeholders, such as employers and the community, learning outcomes offer a reliable benchmark for evaluating the competencies of graduates and their readiness for the labor market and their effective contribution to societal development.

In light of all the above, defining clear and measurable learning outcomes is a strategic necessity to ensure that Saudi Electronic University fulfills its mission of delivering high-quality education aligned with modern demands and labor market needs.

1.2 Concept and Types of Learning Outcomes (Course-Level, Program-Level, Institutional-Level)

Learning outcomes are clear statements that define what students are expected to know, be able to do, or value after completing a course or an entire academic program. These outcomes aim to precisely and measurably articulate educational results, thus facilitating curriculum design, teaching strategies, and assessment methods.

Learning outcomes are generally categorized into three main levels:

I- Course Learning Outcomes (CLOs):

These represent the expected educational results from students at the end of a specific course. They are more specific and focused on course content and are used to guide course instruction and evaluate student performance.

Example: A learning outcome for an accounting course may involve the student's ability to prepare basic financial statements.

II- Program Learning Outcomes (PLOs):

These include a set of educational results that students are expected to achieve upon completion of the entire academic program. They are broader than course outcomes and encompass the knowledge, skills, and values that characterize a program graduate.

Example: A learning outcome for a Business Administration program may include the graduate's ability to make effective strategic decisions.

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III. Institutional Learning Outcomes:

These represent the general traits and competencies adopted by the university as part of its mission and vision. They include values and skills that all university graduates are expected to acquire, regardless of their academic program. For example, these may include commitment to professional ethics and the ability for lifelong learning.

These levels interact in an integrated manner, where course learning outcomes contribute to achieving program learning outcomes, which in turn reinforce institutional learning outcomes. This progression is essential to ensure consistency in the educational process from the course level to the graduate level.

A clear understanding of these levels of learning outcomes helps build an integrated assessment system that ensures performance monitoring and continuous and balanced improvement in the quality of education.

1.3 Characteristics of Good Learning Outcomes

The characteristics of good learning outcomes are fundamental to ensuring the effectiveness of the educational process and its success in achieving the desired goals. For learning outcomes to serve their purpose effectively, they must possess a set of core features that make them clear, measurable, and appropriate to the academic and educational context.

Key characteristics include:

- **Clarity and Precision:**

Learning outcomes should be written in clear and specific language so that both students and faculty can understand them in the same way, avoiding vagueness or overly broad expressions.

- **Measurability**:

Learning outcomes should be measurable using specific assessment tools. This means outcomes should include observable and assessable action verbs such as analyzes, designs, evaluates, instead of vague verbs like understands or learns.

1. Planning (Plan)

- **Coherence and Alignment:**

Learning outcomes should be logically linked to the educational objectives of the program and to each other, and they should align with course content, learning activities, and assessment tools.

- **Achievability:**

Outcomes must be suitable for the academic and professional level of the student, considering their abilities and the available resources.

- **Comprehensiveness and Diversity:**

Learning outcomes should cover all the core areas the program aims to develop in the student, including knowledge, skills, and values.

- **Flexibility:**

Outcomes should allow for adaptation and development in line with the evolving needs of the job market, societal demands, and scientific advancement.

- **Student-Centered Focus:**

Rather than focusing on teaching intentions, outcomes should describe the actual, measurable results that students are expected to achieve.

Together, these characteristics ensure that learning outcomes are an effective tool for curriculum design, guiding teaching methods, and developing assessment tools—ultimately enhancing the quality of education and the graduates' success in their professional lives.

Simple Example of a Good Learning Outcome

Learning Outcome: "The student describes the basic principles of management."

Characteristic	Description	Example of a Simple Learning Outcome
Clarity and Precision	Uses a clear and specific action verb	The student describes the basic principles of management
Measurability	Can be easily assessed using appropriate tools	Assessed through a written exam asking for an explanation of principles
Coherence and Alignment	Aligns with course and program objectives	Aligned with the objectives of an Introduction to Management course
Achievability	Suitable for beginner-level students	Appropriate for first-year students
Comprehensiveness and Diversity	Focuses only on knowledge	Focuses on knowledge as a foundation for further learning
Flexibility	Can be developed to include other skills	Can be expanded in advanced courses
Student-Centered Focus	Describes what the student achieves, not what is taught	Specifies student performance in describing principles

1.4 The Difference Between Educational Objectives and Learning Outcomes (Definition, Example, Usage)

Educational objectives and learning outcomes are fundamental concepts in designing the educational process, but each has a different nature and focus, which affects how they are used in planning and assessment.

Educational objectives express the intentions of the teacher or the program. They reflect what is desired to be achieved during the educational process and are often general and not directly measurable.

Example: "The unit aims to introduce students to the principles of management."

Objectives are used to guide course content and teaching strategies.

In contrast, learning outcomes focus on what the student is actually expected to achieve after completing the course or program. These are clear, measurable results.

Example: "The student explains the basic principles of management."

Learning outcomes are used as a foundation for designing assessment tools and measuring the achievement of objectives.

Aspect	Educational Objectives	Learning Outcomes
Focus	Instructor or program intent	Actual student performance
Nature of Expression	General, may not be measurable	Specific and measurable
Use in Planning	To guide content and teaching methods	To design assessment tools and measure performance
Formulation	Often begins with "aims to" or "intends"	Begins with measurable action verbs like "explains" or "analyzes"
Example	"The unit aims to introduce students to management principles."	"The student explains the basic principles of management."

Clarifying this distinction is essential to ensure that teaching and assessment processes focus on achieving clear and trackable learning outcomes, thereby supporting educational quality and improving academic program results.

1.5 Bloom's Cognitive Taxonomy and Its Application in Formulating Learning Outcomes (Levels and Action Verbs)

Bloom's Cognitive Taxonomy is one of the most important tools used in designing and formulating learning outcomes in a systematic and organized manner. It categorizes thinking processes into various levels ranging from simple to complex. This taxonomy enables faculty members to identify the levels of thinking that should be developed among students and is closely related to writing measurable and assessable learning outcomes.

Levels of Bloom's Cognitive Taxonomy

Bloom's taxonomy is divided into six sequential levels, which are categorized into Lower-order Thinking Skills (LOTS) and Higher-order Thinking Skills (HOTS) as follows:

Level	Description	Examples of Action Verbs Used in Learning Outcome Statements
Remembering	The ability to recall previously learned information and knowledge	Remembering: list, define, name, recall
Understanding	The ability to interpret and explain information	Understanding: explain, interpret, summarize, classify
Applying	The ability to use knowledge in new situations	Applying: apply, use, implement
Analyzing	The ability to break down information into parts and examine relationships	Analyzing: analyze, distinguish, differentiate, infer
Evaluating	The ability to make judgments based on clear criteria	Evaluating: evaluate, critique, select, justify
Creating	The ability to generate new ideas or products that integrate knowledge and skills	Creating: design, invent, develop, compose

Lower-order Thinking Skills (LOTS) vs. Higher-order Thinking Skills (HOTS)

- **Lower-order Thinking Skills (LOTS):**
- These include the first three levels—Remembering, Understanding, and Applying—which involve recalling, understanding, and applying information. These skills are used to build a strong knowledge foundation for students.
- **Higher-order Thinking Skills (HOTS):**
  These include the final three levels—Analyzing, Evaluating, and Creating—which require critical thinking, creativity, and the ability to evaluate information independently. These skills are essential for developing the competencies needed to face real-world and cognitive challenges.

The Relationship Between LOTS and HOTS in Learning Outcomes

When formulating learning outcomes, it is crucial to include both types of skills to ensure a gradual and balanced development of student abilities.

- **Example of a Lower-level (LOTS) Learning Outcome:**
- "The student lists the steps of the strategic planning process."
- This outcome focuses on remembering, a lower-order skill.

- **Example of a Higher-level (HOTS) Learning Outcome:**
- "The student evaluates different marketing strategies and proposes innovative solutions to improve performance."
- This outcome reflects evaluating and creating, higher-order skills.

Practical Example of Learning Outcomes Using Bloom's Taxonomy

Cognitive Level	Learning Outcome Statement	**Code**
Remembering (LOTS)	The student describes basic management concepts	PLO-K1
Understanding (LOTS)	The student explains the importance of strategic planning and its impact on performance	PLO-K2
Applying (LOTS)	The student applies analytical tools to solve administrative problems	PLO-S1
Analyzing (HOTS)	The student analyzes market data and identifies challenges and opportunities	PLO-S2
Evaluating (HOTS)	The student evaluates ethical practices in the workplace and determines appropriate principles	PLO-V1
Creating (HOTS)	The student designs an innovative marketing plan suited to the business environment	PLO-V2

Understanding and applying Bloom's Cognitive Taxonomy in formulating learning outcomes helps in building progressive outcomes that enhance students' cognitive, skill-based, and value-based development. This ensures the preparation of graduates capable of facing contemporary challenges with advanced competencies. It also enables educators to design comprehensive teaching and assessment plans aligned with various levels of thinking.

1.6 Domains of Learning Outcomes According to the National Qualifications Framework (Knowledge, Skills, Values)

The National Qualifications Framework (NQF) is the official reference in the Kingdom of Saudi Arabia for classifying and organizing learning outcomes in higher education. It divides learning outcomes into three main domains representing the dimensions of knowledge, skills, and values that students are expected to achieve by the end of a course or academic program. This classification aims to ensure the comprehensiveness of educational outcomes and to develop well-rounded, multi-skilled graduates.

The Three Domains of Learning Outcomes:

1. Knowledge Domain

Refers to what students should know in terms of facts, concepts, principles, and theories in their discipline or area of study. It includes the ability to recall, understand, and analyze information.

2. Skills Domain

Describes the student's ability to apply knowledge in practical contexts. It includes intellectual skills such as analysis, evaluation, and innovation, as well as technical or professional skills related to the field of study.

3. Values, Attitudes & Responsibility Domain

Pertains to the ethical values, professional behaviors, and attitudes students are expected to develop, such as academic integrity, teamwork, and social responsibility.

Importance of Domain Classification:

- **Comprehensiveness: Ensures coverage of all educational aspects needed to prepare qualified graduates.**
- **Focus: Allows programs to target specific knowledge, skills, and values aligned with labor market and societal needs.**
- **Assessment: Facilitates the design of specialized assessment tools suitable for each domain.**
- **Illustrative Example of Learning Outcomes Covering the Three Domains:**

Code	Domain	Learning Outcome Statement
PLO-K1	Knowledge	The student describes the fundamental principles of financial management
PLO-S1	Skills	The student analyzes financial data using appropriate analytical tools
PLO-V1	Values & Behavior	The student demonstrates commitment to professional ethics and behavioral standards at work

This classification serves as a foundation for designing and evaluating learning outcomes in alignment with the National Qualifications Framework, enhancing the quality of graduates and their adaptability to professional and academic demands.

1.7 Importance of Learning Outcomes for Stakeholders (Students, Faculty, University, Labor Market, Regulatory Bodies, Society)

Learning outcomes play a pivotal role in the success of the educational process as they are closely connected to a range of stakeholders inside and outside the educational institution. Each stakeholder group interacts with learning outcomes in a way that makes understanding their importance essential for achieving the intended goals of education.

1. Planning (Plan)

First, students are the primary beneficiaries of learning outcomes. These outcomes provide them with a clear vision of what they are expected to know or be able to do, helping them assess their academic progress and purposefully develop their skills. Example: If the learning outcome is “The student explains the fundamentals of human resource management,” then the student knows they must develop a solid understanding of these concepts to succeed in the course.

Second, faculty members rely on learning outcomes as a guide for course design, teaching strategy selection, and crafting assessment tools that accurately measure the achievement of these outcomes.

Example: If the outcome is “The student applies data analysis techniques,” the instructor would choose assessment tools like analytical projects or practical exams to accurately evaluate this outcome.

Third, the university uses learning outcomes as tools for ensuring and evaluating the quality of academic programs, supporting accreditation processes, and enhancing its reputation.

Example: The university can track the achievement of learning outcomes across its campuses to ensure consistency in education quality.

Fourth, the labor market views learning outcomes as vital indicators of graduates' readiness and ability to meet organizational needs. Example: A learning outcome like “The graduate uses effective communication skills in the workplace” reflects the graduate's professional interaction capabilities, which are essential for employers.

Fifth, regulatory and accreditation bodies utilize learning outcomes as benchmarks for program evaluation and alignment with national and international frameworks, ensuring high-quality educational standards.

Finally, society benefits from learning outcomes as they build trust in educational institutions and reflect how the university contributes to producing competent professionals who drive sustainable development.

Practical Example Demonstrating the Importance of a Learning Outcome:

Learning Outcome:

“The student analyzes organizational problems using critical thinking tools.”

- **Stakeholder How the Outcome Is Important**
- **Students: Clarifies a key skill to develop and focus on during the course.**
- **Faculty: Guides teaching and classroom activities that emphasize analysis and critical thinking.**
- **University: Serves as a core metric for evaluating the effectiveness of the Business Administration program.**
- **Labor Market: Indicates the graduate's ability to address challenges and make informed decisions.**
- **Accreditation Bodies: Demonstrates the program's commitment to developing higher-order thinking skills.**
- **Society: Enhances the ability of graduates to contribute meaningfully to various organizations.**

1.8 Aligning Learning Outcomes with Graduate Attributes (Definition, Alignment Process, Practical Example)

Achieving consistency between learning outcomes and graduate attributes is a strategic step essential for ensuring the quality and effectiveness of academic programs in preparing distinguished graduates. Graduate Attributes represent the skills, values, and behaviors that the university aims to instill in its students throughout their academic journey. These attributes provide a general framework that reflects the ideal profile of a graduate who is prepared for the labor market and meets the demands of societal development.

The alignment process involves linking each graduate attribute with a set of program learning outcomes so that these outcomes practically reflect the attainment of those attributes within the educational and assessment context. This alignment ensures:

- Comprehensive coverage of all required competencies through learning outcomes.
- Guided design of courses, learning activities, and assessments toward achieving these attributes.
- Ease of identifying strengths and gaps in the program and developing improvement plans.

Steps to Align Learning Outcomes with Graduate Attributes:

1. Identify the university's approved graduate attributes, which typically include cognitive skills, practical abilities, and ethical values.
2. Determine the program learning outcomes that support each of these attributes.
3. Create an alignment matrix mapping graduate attributes to learning outcomes to show the degree of support.
4. Analyze the matrix to identify any gaps or weak coverage of attributes in the program's outcomes.
5. Develop an improvement plan to ensure effective integration of the attributes into program outcomes and teaching practices.

Illustrative Example: Program Learning Outcomes (PLOs) Matrix

The following table presents a comprehensive model of program learning outcomes, categorized by cognitive, skills, and values domains:

Code	Learning Outcome	Domain
PLO-K1	The student explains the fundamental principles of the discipline.	Knowledge
PLO-K2	The student analyzes relationships between core concepts in the discipline.	Knowledge
PLO-S1	The student applies analytical methods in a practical context.	Skills
PLO-S2	The student develops effective communication skills.	Skills
PLO-V1	The student adheres to professional ethics and responsible conduct.	Values & Responsibility
PLO-V2	The student actively participates in interdisciplinary teams.	Values & Responsibility

Graduate Attributes Matrix

The following matrix outlines the general attributes that the university aims to develop in its graduates:

Code	Graduate Attribute	Description
GA1	Critical Thinking	Ability to think analytically and make informed decisions.
GA2	Communication Skills	Ability to express ideas effectively, both orally and in writing
GA3	Lifelong Learning	Commitment to continuous professional and personal development
GA4	Ethical Commitment	Conducting oneself according to professional and ethical standards
GA5	Teamwork	Effective collaboration and working within diverse teams
GA6	Innovation & Creativity	Ability to generate new ideas and creative solutions

Practical Example of Learning Outcomes to Graduate Attributes Alignment

Code	Graduate Attribute	PLO-K1	PLO-K2	PLO-S1	PLO-S2	PLO-V1	PLO-V2
GA1	Critical Thinking	✓	✓	✓			
GA2	Communication Skills				✓		
GA3	Lifelong Learning			✓			
GA4	Ethical Commitment					✓	
GA5	Teamwork				✓	✓	
GA6	Innovation & Creativity			✓	✓		

This alignment allows academic programs to graduate well-rounded individuals equipped with the competencies required by the labor market and society. It also enhances the effectiveness of teaching and assessment processes and contributes to the continuous improvement of program quality through the identification and correction of gaps.

1.9 Aligning Learning Outcomes with the National Qualifications Framework (NQF Levels of Outcomes)

The National Qualifications Framework (NQF) in the Kingdom of Saudi Arabia serves as the official reference for defining the levels and competencies of learning outcomes across all higher education programs. The primary objective of the NQF is to ensure standardized benchmarking that facilitates the comparison and analysis of academic program outcomes across various educational institutions.

Levels of Learning Outcomes According to the National Qualifications Framework (NQF)

The National Qualifications Framework (NQF) categorizes learning outcomes into progressive levels that reflect the complexity of knowledge, skills, and values students are expected to attain at each educational stage. The framework typically includes eight levels, with undergraduate programs commonly aligned with levels 5 to 7, as follows:

Level	General Description	Expected Outcome Level
5	Diploma or Equivalent	Fundamental knowledge and skills qualifying for limited professional practice
6	Bachelor's Degree	In-depth knowledge, advanced analytical and practical skills
7	Master's Degree	Specialized knowledge and advanced research and evaluation skills
8	Doctoral Degree	In-depth research-based knowledge and high-level creative skills

Alignment of Program Learning Outcomes (PLOs) with Framework Levels:

To ensure the effectiveness of learning outcomes, they must align with the academic level designated for the program:

- Bachelor's programs should focus on learning outcomes aligned with NQF Level 6, developing knowledge, skills, and values that meet labor market requirements.
- Postgraduate programs (Master's and Ph.D.) must feature more complex and specialized learning outcomes aligned with Levels 7 and 8.

Practical Example of Aligning Program Outcomes with NQF Levels

Code	Outcome Statement	Domain	NQF Level	Notes
PLO-K1	The student describes basic principles in the discipline	Knowledge	6	Suitable for undergraduate programs
PLO-S2	The student applies critical analysis skills	Skills	6	Reflects an advanced application skill
PLO-V1	The student demonstrates commitment to professional values	Values & Responsibility	6	Expected from a bachelor's graduate

Importance of Alignment with the NQF

Such alignment is essential to:

- Ensure consistency with national requirements
- Support eligibility for national and international academic accreditation
- Standardize educational quality benchmarks
- Facilitate student mobility across educational institutions
- Meet labor market expectations and national development needs

1.10 Alignment of Learning Outcomes with Key Learning Outcomes (KLOs) (Identification, Matching, Analysis)

Aligning Program Learning Outcomes (PLOs) with Key Learning Outcomes (KLOs) is a critical step to ensure academic program quality and compliance with the standards of the Education and Training Evaluation Commission (ETEC), which serves as the national reference framework for academic disciplines.

Identification and Analysis of Academic KLOs:

A comprehensive list of approved learning outcomes for the specific academic discipline is compiled from ETEC.

Sample KLO Statements:

Code KLO	KLO Statement	Description
KLO1	Explain the fundamental principles and theoretical concepts in the field	Deep understanding of foundational disciplinary concepts
KLO2	Apply specialized tools and techniques to solve field-specific problems	Use of field-specific techniques to resolve professional issues
KLO3	Evaluate the results of applying knowledge and propose improvements based on professional and ethical standards	Ability to evaluate tasks and make responsible decisions
KLO4	Communicate effectively with colleagues and clients in multicultural professional environments	Oral and written communication skills appropriate to professional settings
KLO5	Commit to lifelong learning and demonstrate self-development capabilities in the discipline	Continuous improvement and development of skills and knowledge

according to the standards it satisfies. This supports consistency and facilitates program evaluation.

Gap Analysis:

Identifying KLOs not adequately covered by current PLOs leads to planning necessary adjustments in outcome wording or course development to close gaps.

Practical Example of PLO–KLO Alignment Matrix

Code KLO	KLO Statement	Matching PLO Code	Program Learning Outcome Statement	Notes
KLO1	Explains basic principles in the discipline	PLO-K1	The student explains key concepts related to the discipline	Fully covered
KLO2	Applies specialized tools and techniques	PLO-S1	The student uses tools and techniques in practical settings	Needs enhancement
KLO3	Evaluates professional issues based on ethical norms	PLO-V1	The student adheres to professional values and ethics	Partial coverage, needs development

1.11 Alignment of Program Learning Outcomes (PLOs) with Course Learning Outcomes (CLOs)

Alignment in education refers to the coherence between the Program Learning Outcomes (PLOs) and the Course Learning Outcomes (CLOs). The aim is to ensure that each program outcome is achieved through the content and activities of specific courses.

This alignment is used to guide curriculum design, teaching plans, assessment tools, and the learning outcomes assessment plan.

Consistency Symbols in the Alignment Matrix

- I (Introduced): The outcome is introduced in this course.
- P (Practiced): The outcome is practiced and reinforced in this course.
- M (Mastery): Mastery of the outcome is expected in this course.

Example CLOs (Course Learning Outcomes):

Code	Example CLOs (Course Learning Outcomes)
MGT101	The student describes basic management principles and their importance in organizations
MGT201	The student applies organizational planning methods and analyzes administrative problems
MGT301	The student analyzes marketing strategies and examines their impact on overall performance
MGT401	The student evaluates ethical practices in management and develops improvement plans

Practical Example of an Alignment Matrix between PLOs and CLOs:

Code	PLO-K1	PLO-K2	PLO-S1	PLO-S2	PLO-V1
MGT101	I	I	P		
MGT201		P	P	P	I
MGT301			P	M	
MGT401				M	M

Importance of Alignment with Examples

The alignment ensures that:

- The PLO-K1 outcome (e.g., "explains fundamental principles") is introduced in foundational courses such as MGT101.
- The PLO-S2 outcome (e.g., "applies data analysis skills") is developed through practice and training in courses like MGT201 and MGT301.
- The PLO-V1 outcome (e.g., "demonstrates commitment to ethics") is mastered in advanced courses such as MGT401.

This alignment facilitates assessment planning and guides faculty members in their instructional and evaluation responsibilities.

Conclusion

After laying the theoretical and conceptual foundations for the concept of learning outcomes and their importance, and explaining how to formulate them and align them with graduate attributes and national and disciplinary requirements, we have completed the Planning phase—representing the first step in the continuous quality improvement cycle.

This phase acts as a roadmap that clarifies what should be assessed, why, and how the learning outcomes relate to the program goals and stakeholders, ensuring that the subsequent phases are based on a clear and consistent understanding.

In the next chapter, we will move to the Implementation phase, where these plans are applied in practice through selecting appropriate assessment tools, implementing them within courses, and systematically collecting data. This will allow for obtaining accurate information on the extent to which learning outcomes have been achieved.

The transition from planning to implementation is the cornerstone of a successful learning outcomes assessment process and completes the PDCA cycle to ensure continuous improvement and academic quality.

Chapter II - Implementation (Do)

2. Implementation (Do)

Introduction

After establishing the planning foundations for measuring learning outcomes in Chapter One, the implementation phase represents the practical step in the PDCA cycle. In this phase, the assessment plan is put into action using both direct and indirect assessment tools, executed within courses and programs, and data is collected accurately and objectively.

The purpose of implementation is to provide real and reliable evidence of the achievement of learning outcomes through organized mechanisms including responsibility allocation, scheduling, technical and academic support for faculty members, and full documentation of procedures and results.

This chapter will detail different types of assessment tools with practical examples, showing how they're integrated within the context of the Saudi Electronic University—with its diverse branches and blended learning model. This ensures that all stakeholders have a clear execution plan, facilitating performance monitoring and result analysis in the next phase, and supporting data-informed decision-making that continually enhances educational quality.

2.1 PLOs Assessment Plan

The PLOs Assessment Plan is a strategic working document that clearly defines how, when, and by whom program learning outcomes will be measured. This plan offers a structured framework enabling faculty and program coordinators to conduct comprehensive, systematic assessments that yield accurate, reliable data to support ongoing improvements in educational quality.

Components of the Assessment Plan:

Targeted Learning Outcomes (PLOs): A clear, defined list of learning outcomes to be assessed within a specific timeframe.

Assessment Tools: Both direct and indirect tools associated with each outcome.

- **Associated Courses: Courses through which each outcome will be assessed.**
- **Scheduling: When and how the assessments will take place.**
- **Responsibilities: Assignment of individuals or units responsible for each component of the plan.**
- **Benchmarks: The percentage or level that constitutes acceptable attainment of the outcome.**

Setting the Target for Learning Outcomes

Determining a quantitative target for each learning outcome is vital for assessing how successfully the program meets its educational goals. This target defines the score or percentage students must achieve for an outcome to be considered effectively attained.

How the Target Is Determined:

1. **Historical Data: Using past performance results as a reference. For example, if the outcome achieved 70% last year, raising the target to 75% can represent a planned improvement.**
2. **Benchmark Comparisons: Comparing program performance with national/international standards or similar institutions to set targets aligned with best practices.**
3. **Accreditation Requirements: Considering minimum thresholds set by accrediting bodies.**
4. **Labor Market Needs: Analyzing workplace demands and how crucial the outcome is to professional competency.**

Example:

- Learning Outcome: “The student applies critical thinking skills in problem-solving.”
- Target: 75% of students scoring at least 70% on assessments measuring this outcome.

Sample PLOs Assessment Plan Table:

Code	PLO Statement	Domain	Associated Course	Assessment Tool	Tool Type	Responsible	Semester	Target (%)	Benchmark/Reference
PLO-K1	The student explains foundational management principles	Knowledge	MGT101	Written exam	Direct	MGT101 Course Professor	First Semester	75%	National Education Evaluation Commission Standards
PLO-S2	The student applies critical thinking skills in problem-solving	Skills	MGT302	Applied project + rubric	Direct	MGT101 Course Professor	Second Semester	80%	Previous Year Average Results
PLO-V1	The student demonstrates professional ethics and values	Values & Responsibility	MGT405	Student and alumni satisfaction survey	Indirect	Quality Unit	End of Program	70%	Labor Market Requirements

2.2 Direct Assessment Tools (Types, Examples, Usage Mechanism)

Direct assessment tools form the backbone of the process for evaluating the achievement of learning outcomes. They rely on collecting actual performance data reflecting student abilities in knowledge, skills, and values. These tools provide strong, objective evidence of student competency and are crucial for scientific and reliable learning assessment.

Types of Direct Assessment Tools:

1. Written Exams:

Used to assess knowledge and understanding. These may include objective questions (such as multiple choice) or essay/problem-solving items. These are widely used to measure cognitive learning outcomes, especially in foundational and disciplinary courses.

2. Projects & Reports

These tools assess application and analytical skills. They involve preparing individual or group projects and writing research-based reports.

Use Case: Suitable for measuring critical thinking, application, and innovation skills, especially in advanced and applied courses.

3. Presentations

Used to assess communication, presentation, and interpretation skills.

Use Case: Commonly used in professional skills courses, such as communication or leadership.

4. Practical Assessments

These include fieldwork or laboratory tasks that assess a student's ability to perform real-world functions.

Use Case: Essential in disciplines requiring practical application, such as engineering, medicine, and technology.

5. Case Studies

Analysis of real-world scenarios to assess students' problem-solving and decision-making abilities.

Use Case: Frequently used in management, marketing, and law courses to measure analytical and evaluative skills.

6. Rubrics

A tool for evaluating academic work based on specific criteria and clear performance levels.

Use Case: Used with projects, reports, presentations, and practical assessments to ensure objectivity and transparency..

How to Use Direct Assessment Tools in Learning Outcomes Measurement Programs

- **In the Annual Assessment Plan Matrix:**

The direct tools used to assess each learning outcome within specified courses are identified, along with a clear timeline across academic terms.

- **In Course Learning Outcome (CLO) Assessments:**
- **Direct tools are used to evaluate student performance within the course, providing essential data for assessing Program Learning Outcomes (PLOs).**

- **In Annual Assessment Reports:**

The results of direct tools are analyzed to determine the extent of learning outcome achievement, compared to targets and benchmarks.

Rationale for Using Direct Assessment Tools

- Provide accurate and objective data that can be compared across semesters and years.
- Reflect students' actual performance, enabling scientific analysis of program effectiveness.
- Help identify strengths and weaknesses precisely, supporting evidence-based improvement planning.
- Contemporary education encourages using direct tools to assess higher-order skills like critical thinking and problem-solving.

Practical Example: PLO Assessment Plan in a Business Administration Program

Code	Associated Course	Direct Assessment Tool	Measured Outcome Type	Semester
PLO-K1	MGT101	Written Exam	Knowledge	First Semester
PLO-S2	MGT401	Research Project + Rubric	Applied Skills	Second Semester
PLO-V1	MGT405	Presentation + Performance Evaluation	Professional Values & Behavior	Third Semester

2.3 Indirect Assessment Tools (Types, Examples, Usage Mechanism)

Indirect assessment tools form a significant part of the learning outcomes evaluation process. They collect information based on stakeholder perceptions and opinions regarding the extent to which students have achieved the learning outcomes. Unlike direct tools that assess student performance directly, these tools offer a broader picture of the quality of the educational process and its impact on students, graduates, and the labor market.

Types of Indirect Assessment Tools

1. Surveys:
    - Student satisfaction surveys about their educational experience.
    - Alumni surveys assessing how well the program prepared them and their transition to the job market.
    - Employer surveys evaluating graduates' competencies.
2. Interviews
    - One-on-one meetings with graduates or employers to gather detailed insights into education quality.
3. Focus Groups:
    - Structured group discussions with students, alumni, or employers to understand program strengths and areas for improvement.
4. Self-Assessments and Self-Reports:
    - Reports prepared by students to reflect on their own progress and achievement of learning outcomes.
5. Faculty Feedback:
    - Instructors' evaluations of how well courses cover and support the achievement of learning outcomes.

Practical Examples of Indirect Assessment Tools

Tool Type	Description	Practical Example
Student Surveys	Collecting students' opinions about education quality	End-of-term survey to measure student satisfaction
Alumni Surveys	Alumni assessment of their experience and skills	Post-graduation survey on relevance of skills to the job market
Employer Surveys	Employer evaluation of graduate competencies	Survey on graduates' performance in the workplace
Individual Interviews	One-on-one meetings to collect detailed feedback	Interviews with program graduates to learn about their experiences
Focus Groups	Structured group discussions	Sessions with students and alumni to discuss strengths and weaknesses

How to Use Indirect Assessment Tools in Learning Outcomes Measurement Programs

- These tools are typically administered at designated times during the academic year or post-graduation.
- They help assess aspects that are difficult to evaluate using direct tools, such as student satisfaction and overall program impact.
- Their results are used to support direct assessment findings and provide a more comprehensive view of education quality.
- Results are documented electronically through university systems or dedicated platforms.
- Data should be analyzed periodically to produce regular reports that contribute to continuous improvement.

Example of a Learning Outcome Measured by a Survey

Learning Outcome:

"The student demonstrates the ability to work effectively in academic and professional team environments."

Assessment Using a Survey (Indirect Tool):

A survey can be designed to measure perceptions of students, alumni, or employers regarding the achievement of this outcome. It may include questions such as:

S/N	Sample Survey Questions:	Likert Scale (5-Point):
1	To what extent did you feel able to collaborate with peers during group projects?	1 = Never 2 = Rarely 3 = Sometimes 4 = Often 5 = Always
2	How do you rate the communication and teamwork skills you developed during the program?	1 = Poor 2 = Fair 3 = Good 4 = Very Good 5 = Excellent
3	Do you believe the program helped you develop skills for working in interdisciplinary teams?	1 = No 2 = Somewhat 3 = To a large extent 4 = Very much 5 = Completely
4	How would you describe your commitment to values and responsibilities within a team?	1 = Not committed 2 = Rarely committed 3 = Sometimes committed 4 = Often committed 5 = Always committed

2.4 Distribution of Assessment Weights (70% Direct, 30% Indirect)

Distributing assessment weights between direct and indirect tools is a fundamental step to ensure accuracy and comprehensiveness in evaluating learning outcomes. This distribution creates a balance between measuring actual student performance (direct) and collecting stakeholder perceptions (indirect), offering a holistic view of the educational process.

A commonly adopted distribution is 70% for direct assessment tools and 30% for indirect tools, though each portion can be further subdivided based on the program's nature and assessment requirements.

Rationale for Subdividing Assessment Weights

Accuracy and Objectivity:

Subdividing the larger portion (70%) into multiple direct tools (e.g., 40% exams, 20% projects, 10% practical evaluations) helps assess various aspects of outcomes with precision and objectivity.

- **Comprehensiveness and Integration:**
- **Dividing the 30% of indirect assessment into student surveys (20%) and alumni surveys (10%), for example, enhances data diversity and supports broader analysis.**

- **Flexibility in Evaluation:**
- **This distribution allows assigning appropriate weight to each tool based on its relevance and accuracy in measuring a specific learning outcome.**

Practical Example of Weight Distribution and Subdivision

Learning Outcome	Direct Assessment Tools:	%	Indirect Assessment Tools:	%
PLO-K1	Final Written Exam	40%	Student Survey	20%
	Research Project with Rubric	20%	Alumni Survey	10%
	Field-Based Practical Evaluation	10%		
PLO-S2	Applied Projects	50%	Employer Survey	20%
	Practical Test	20%		

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When calculating the achievement score of a learning outcome, the score from each tool is multiplied by its assigned weight, then the totals are summed up:

Example:

- Written exam (40%) – student score: 85%
- Research project (20%) – student score: 75%
- Practical evaluation (10%) – student score: 90%
- Student survey (20%) – student score: 80%
- Graduate survey (10%) – student score: 70%
- Final score = (0.40×85) + (0.20×75) + (0.10×90) + (0.20×80) + (0.10×70) = 34 + 15 + 9 + 16 + 7 = 81%

Importance of This Detailed Breakdown

- Ensures that all educational dimensions are represented in a balanced manner.
- Enables specific performance tracking through various tools, supporting precise improvement decisions.
- Provides greater flexibility for programs to tailor evaluation tools according to each learning outcome's nature.
- Enhances the reliability of results and reduces potential bias or error from reliance on a single tool.

2.5 Mechanism for Determining the Weighting of Learning Outcomes at Branch Level (Explanation, Steps, Practical Example)

When an academic program is offered across multiple university branches, the number of enrolled students often varies significantly. Therefore, it's crucial to consider this disparity in the measurement and analysis of learning outcome results to ensure fair evaluation and credible program-level outcomes.

The weighting mechanism for learning outcomes is based on the proportion of students at each branch relative to the total number of students enrolled in the program during the assessment period. These proportions are then used to calculate weighted results that reflect overall program performance.

Steps for Determining Branch Weighting

1. Determine the number of students at each branch:

Collect data on the number of students assessed for learning outcomes at each branch.

2. Calculate each branch's relative weight:

Branch Weight = Number of students in branch / Total number of students in the program

3. Collect the achievement percentages of learning outcomes at each branch:

Learning outcome achievement rates at each branch are calculated using the applied assessment tools.

4. Calculate the weighted result for each outcome:

Multiply each branch's achievement rate by its relative weight, then sum all values to get the final result at the program level.

Practical Example

Branch	No. of Students	Relative Weight (%)	Learning Outcome Achievement (%)	Weighted Result
Riyadh	200	50	80	40
Jeddah	120	30	75	22.5
Dammam	80	20	70	14
Total	400	100	—	76.5

In this example, the program achieves 76.5% for the learning outcome when combining results across branches based on their respective weights.

Importance of This Mechanism

- **Fairness: Ensures branches with larger student populations have more influence on the final result, accurately reflecting program-wide performance.**
- **Precise Analysis: Helps identify branches excelling in outcome achievement and those requiring improvement.**
- **Improvement Direction: Provides clear data to support decisions aimed at enhancing educational quality at each branch.**

2.6 Timeline for the Measurement and Implementation Plan

The timeline is a key foundation for the successful implementation of the Learning Outcomes Assessment Plan. It ensures that assessment processes are organized and coordinated sequentially across the academic year. Scheduling helps with task distribution, setting timelines for applying assessment tools, and collecting and analyzing data in a timely manner, all of which contribute to accuracy and reliability of results.

Timeline Elements

1. Identifying academic terms:

Learning outcomes assessment is planned across various semesters according to the program's annual schedule. Semesters are selected where targeted outcomes are expected to be best achieved.

2. Scheduling the application of assessment tools:

Clear dates are set for applying each direct or indirect assessment tool (e.g., exams, projects, surveys), considering academic workload and response effectiveness.

3. Data collection:

Data collection is systematically planned and carried out using Learning Management Systems (LMS) or other electronic systems for assessment results, in addition to electronic surveys for gathering opinions from students, graduates, and employers.

4. Data analysis and reporting:

Regular timelines are established throughout the year for analyzing data and preparing preliminary reports to support evaluation and monitoring. This also allows time for necessary adjustments before the end of the academic year.

Sample Timeline for Implementing the Assessment Plan

Time Period	Task	**Semester**	Responsible	Expected Outcomes
Weeks 1–2	Update assessment plan and alignment matrices	First	Program Coordinator	Updated assessment plan
Weeks 4–6	Design or revise assessment tools	First	Faculty Members	Approved and ready-to-use assessment tools
Weeks 7–12	Apply direct assessment tools	First	Faculty Members	Results from exams and projects
Weeks 10–14	Conduct indirect assessment tools (e.g., surveys)	First	Quality Unit	Completed survey data
Weeks 15–16	Data collection and analysis	First	Program Coordinator	Preliminary analytical report
End of Semester	Prepare annual assessment report	—	Quality Committee	Comprehensive report with improvement recommendations

Importance of the Timeline

- Work Organization: Helps prevent overlap or delays in the implementation of assessment activities.
- Enhancing Collaboration: Clarifies the responsibilities and timelines for each participating party.
- Quality Assurance: Enables close monitoring of the quality of assessment processes and data collection.
- Continuous Improvement: Provides timely data and reports to take immediate improvement actions.

2.7 Guidelines for Designing Assessment Tools and Linking Them to Learning Outcomes

Assessment tools are a core component in determining the accuracy and quality of learning outcomes evaluation. It's not enough to select random tools or write imprecise questions; tools must be systematically designed and aligned with learning outcomes to ensure accurate and reliable data that reflect students' actual performance.

First, questions and tasks must be formulated to reflect the behavioral verbs specified in the learning outcomes. For example, if a learning outcome requires “analyzing” or “evaluating,” it cannot be measured with a tool that only tests “recall” or “understanding.” Therefore, frameworks such as Bloom’s Taxonomy are used to guide the formulation of tools in accordance with the required level of cognitive skills.

Second, rubrics are used as organizational tools that support accurate and objective evaluation of academic performance. A rubric includes defined criteria for each learning outcome, with clear descriptions of performance levels (e.g., poor, acceptable, good, excellent).

Example of Rubric Alignment with a Learning Outcome and Bloom’s Taxonomy

Assessment Criterion	Level 1 (Poor)	Level 3 (Good)	Level 5 (Excellent)
Analysis (Analytical LO)	No clear or incorrect analysis	Good analysis with minor omissions	Comprehensive and logical analysis
Application (Applied LO)	Incorrect application of concepts	Mostly correct application	Innovative and accurate application
Evaluation (Evaluative LO)	Subjective or unsupported evaluation	Evaluation based on clear criteria	Critical, well-supported evaluation

Matrix Linking Learning Outcomes with Assessment Tools and Bloom's Taxonomy

Code	Learning Outcome Description	Suggested Tool	Bloom's Level	Sample Task
PLO-K2	The student explains complex concepts	Essay exam	Understanding	"Explain how economic factors influence the market."
PLO-S3	The student analyzes complex data	Research project + rubric	Analyzing	"Analyze sales data and propose new strategies."
PLO-V1	The student evaluates ethical practices	Case study + survey	Evaluating	"Evaluate the company's practices according to international ethical standards."

Practical Tips for Designing Effective Assessment Tools

- Start by analyzing the learning outcomes to identify the associated behavioral verbs, then design tasks that clearly reflect those actions.
- Use rubrics to provide clear evaluation criteria for assessors and students, and to ease the interpretation of results.
- Diversify assessment tools to cover various levels of Bloom's Taxonomy, ensuring assessment of knowledge, skills, and values.
- Pilot the tools with a small group of students to improve question clarity and assessment effectiveness before full implementation.
- Train faculty members on how to use rubrics and interpret performance criteria to ensure fair assessment.

2.8 Setting Targets and Benchmarks (Internal and External)

The process of setting targets and benchmarks is a fundamental element in assessing and evaluating learning outcomes. These targets and benchmarks help interpret assessment results, determine how well programs achieve their educational goals, and guide ongoing improvement efforts.

Definition of Targets

A target is the level or percentage expected to be achieved by students in a given learning outcome for it to be considered successfully attained. These targets are set based on:

- Previous assessment results within the program (internal targets)
- National or international standards and accreditations (external targets)
- Labor market expectations and national development needs

Types of Benchmarks

- Internal Benchmarks

Based on the program's own historical performance data, such as results from previous years or from other departments within the same university.

These benchmarks help monitor progress or decline in performance over time.

- External Benchmarks

Derived from comparing the program's performance with other educational institutions or with national and international standards—such as the National Center for Academic Accreditation and Evaluation (NCAAA) or global quality standards.

These are used to assess alignment with best academic practices.

Performance Monitoring Using Targets and Benchmarks

The actual assessment results are compared to the established targets and benchmarks to evaluate the achievement level of learning outcomes:

- If the results meet or exceed the target, the outcome is considered "achieved."
- If the results are slightly below the target, the outcome is considered "partially achieved," requiring follow-up and improvement.
- If the results are significantly below the target, the outcome is considered "not achieved" and requires immediate corrective action.

Practical Example of Setting Targets and Benchmarks

Code	Description	Internal Target %	External Target %	Final Target%
PLO-K1	The student explains basic management principles	72	Similar national university	75
PLO-S2	The student applies analytical skills in practical cases	68	National accreditation standard	70
PLO-V1	The student adheres to professional and ethical conduct	70	Employer surveys	75

Importance of Setting Targets and Benchmarks

- Facilitates the establishment of clear and specific goals for academic programs.
- Enables monitoring of performance and analysis of trends over time.
- Ensures alignment of programs with national and international standards.
- Supports evidence-based decision-making for continuous improvement.

2.9 Documentation of the Annual Assessment Plan

Documenting the annual assessment plan is a crucial step to ensure effective and organized implementation of the learning outcomes assessment process within the academic program. Systematic documentation allows tracking all actions taken, ensures that the necessary evidence is available for internal and external reviews, and facilitates data analysis and decision-making based on reliable and accurate results.

Models for Documenting the Annual Assessment Plan

1. Annual Assessment Plan Template

Includes a detailed table outlining the learning outcomes to be assessed, the tools used, the relevant courses, responsibilities, academic terms, and targeted achievement percentages.

Code	Learning Outcome	Associated Course	Assessment Tool	Tool Type	Responsible Party	Semester	Target %
PLO-K1	The student explains fundamental concepts	MGT101	Written exam	Direct	Course instructor	First	75%
PLO-S2	The student applies critical analysis skills	MGT302	Applied project + Rubric	Direct	Course instructor	Second	80%
PLO-V1	The student commits to professional ethics	MGT405	Graduate survey	Direct	Quality Unit	The End of the Program	70%

2. Results Recording Template

Used to document student performance results or survey data, including details on student achievement and mastery levels.

Name	Course Code	Outcome Code	Grade (%)	Mastery Level
Ahmed Ali	MGT101	PLO-K1	78	Good
Fatimah Mohammed	MGT302	PLO-S2	85	Excellent

2. PLOs Assessment Report

A formal document that summarizes assessment results, identifies gaps, and provides improvement recommendations. It is an essential part of the PDCA cycle in the "Check" phase. The details of this report will be discussed in Chapter 3.

Roles and Responsibilities in Documentation

Entity	Responsibilities
Faculty members	Implement assessment tools, record results, and upload files
Course coordinator	Monitor data collection and review results
Program coordinator	Consolidate and analyze data, prepare preliminary reports
Quality and Accreditation Unit	Review plans and results, prepare final reports
University Administration	Approve plans and reports, monitor implementation of improvements

Documentation and Storage Mechanisms

- Use Learning Management Systems (LMS) to collect and centrally store data.
- Save electronic copies of all evidence, such as exams, projects, surveys, and reports.
- Officially document and approve plans and reports within the quality records.
- Conduct regular meetings to review assessment results and monitor plan implementation.
- Provide continuous training for faculty on using documentation tools.

Importance of Documentation

- Ensures transparency and easy access to information during internal and external reviews.
- Facilitates tracking of performance and systematic analysis of results.
- Supports academic accreditation and fulfills regulatory body requirements.
- Enhances a culture of quality and accountability among all stakeholders.

Conclusion

In Chapter Two, we explored the practical implementation of the learning outcomes assessment plan, including the selection and application of direct and indirect assessment tools, organizing the assessment timeline, and distributing relative weights based on student numbers across different campuses. The chapter also highlighted the importance of accurate documentation and the associated responsibilities to ensure the precision and transparency of the assessment process.

This stage represents the core of the PDCA cycle, where actual evidence is collected to determine the achievement of learning outcomes, providing the data needed for objective academic performance analysis.

In Chapter Three, we will transition to the “Check” phase, which focuses on accurately analyzing the assessment results, evaluating the extent of outcome achievement, and using the findings to identify gaps and analyze root causes—enabling the development of appropriate corrective and improvement plans.

The shift from implementation to checking is a critical step to ensure continuous improvement and enhance the quality of education. The university relies on systematic data analysis to support evidence-based decision-making.

Chapter III - Check

3. Check

Introduction

The Check phase is the third fundamental step in the continuous quality improvement cycle (PDCA). In this stage, data collected during the implementation phase is thoroughly and objectively analyzed to evaluate the extent to which learning outcomes have been achieved.

During this phase, the results of both direct and indirect assessment tools are reviewed, and actual performance is compared to predetermined targets and benchmarks to identify strengths and gaps in achieving learning outcomes.

The Check phase also involves advanced analysis tools such as Gap Analysis matrices, internal comparisons between campuses and courses, and external benchmarking with similar academic programs. This provides a comprehensive view of program performance.

This stage serves as the foundation for improvement decisions in the next phase, ensuring they are based on accurate data and objective analysis, thus enhancing program effectiveness and education quality.

3.1 Data Collection and Analysis

Collecting and analyzing learning outcome assessment data is a core component of the Check phase. It provides an objective and accurate database that enables the program to evaluate the extent of educational goal achievement. This process requires high levels of accuracy and organization to ensure data quality and validity, and analysis turns this data into actionable insights for continuous improvement.

Data Collection Methods

Assessment Type	Tools/Methods	Objective	Practical Example
Direct Assessment	Written exams, projects, presentations, practical evaluations	Measure actual student performance	Written exam in "Principles of Management" course
Indirect Assessment	Student and graduate satisfaction surveys, interviews, focus groups	Collect stakeholder perceptions	Graduate survey on communication skill effectiveness

3. Check

Applied Example: In the "Human Resource Management" course, student performance is assessed through exams and practical assignments (direct), alongside a graduate survey on how well the course prepared them for the workplace (indirect).

Data Consolidation All collected data is integrated into a centralized database for ease of processing and analysis. The data is categorized by:

- Campus
- Course
- Targeted learning outcomes
- Demographic groups (e.g., gender)

Campus	Course	Learning Outcome	Student Count	Average Grade (%)	Survey Satisfaction (%)
Riyadh	MGT101	PLO-K1	150	78	85
Jeddah	MGT101	PLO-K1	100	74	80

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Accuracy Review: Student scores are compared with official grade records.

Evidence Matching: Samples of student work are verified to support reported results.

Quality Review: The quality unit conducts regular audits to ensure no data errors.

Audit Type	Procedure	Responsible Party	Example
Grade Audit	Review collected grade data	Program Coordinator	Compare exam scores with records
Evidence Audit	Review student work samples	Quality Unit	Match rubric levels to student work

3. Check

Data Analysis

Quantitative Analysis Average scores and percentages for learning outcomes are calculated and analyzed by campus and course.

earning Outcome	Overall Avg (%)	Riyadh (%)	Jeddah (%)	Dammam (%)	Remarks
PLO-K1	76.0	78.5	74.0	71.0	Slight variation between campuses
PLO-S2	72.5	75.0	70.0	68.0	Needs improvement in Dammam

Gap Analysis Compares current performance to targets to identify weak areas.

Learning Outcome	Target (%)	Achieved (%)	Gap (%)	Improvement Recommendation
PLO-K1	80	76	4	Enhance instructional materials
PLO-S2	75	72.5	2.5	Conduct training workshops for instructors

Example of Qualitative Data Analysis (Surveys)

- 85% of graduates expressed satisfaction with acquired communication skills.
- 15% suggested the need for enhanced practical training in some courses.

3.2 Using the Gap Analysis Matrix

The Gap Analysis Matrix is an analytical tool used to identify discrepancies between actual and targeted performance levels for learning outcomes. It helps highlight strengths and weaknesses and guides targeted improvement efforts effectively.

3. Check

Steps for Preparing and Analyzing the Gap Matrix

Data Collection: Collect outcome achievement data through direct and indirect tools.
Target Identification: Set the desired or acceptable benchmarks for each outcome.
Gap Calculation: Gap = Target – Actual Performance
Gap Interpretation:
A gap of zero or negative indicates the outcome is achieved or performance exceeds the target.
A positive gap indicates underperformance and the need for improvement.
Prioritization of Improvements: Rank gaps by size and importance to focus improvement plans.

Example of Gap Analysis Matrix

Outcome Code	Learning Outcome Description	Actual (%)	Target (%)	Gap (%)	Achievement Level	Recommendations
PLO-K1	Explains basic management concepts	78	80	2	Partially Achieved	Enhance teaching using interactive tools
PLO-S2	Applies critical analysis skills	70	75	5	Not Achieved	Conduct faculty development workshops
PLO-V1	Demonstrates professional and ethical behavior	85	80	-5	Achieved	Continue with current programs

Interpretation of Results

- **Outcomes with Small Gaps (2-3%)**: These are considered good results, requiring only minor improvements.
- **Outcomes with Large Gaps (>5%)**: These indicate the need for urgent interventions, such as reviewing content, teaching methods, or assessment tools.
- **Outcomes that Meet or Exceed the Target**: Indicate successful performance in those areas and should be maintained.

Importance of Using the Gap Analysis Matrix

- Provides a clear view of strengths and areas for improvement.
- Helps focus resources and efforts on areas that require development.
- Supports evidence-based decision-making.
- Serves as an effective communication tool with administrative and accreditation bodies to illustrate program status.

3.3 Evaluating the Achievement of Learning Outcomes

Evaluating the achievement of learning outcomes is a core step in the Check phase of the PDCA model. This evaluation measures how well students meet the expected educational results using clear criteria and defined performance levels.

3. Check

Criteria for Evaluating Achievement

Target: The pre-defined level or percentage considered a success for the outcome.

Proficiency Level: Reflects the level of mastery a student demonstrates in achieving the outcome.

Inclusiveness and Consistency: The extent to which all students across various performance levels are included.

Balance Between Direct and Indirect Tools: Ensures comprehensive evaluation.

Levels of Learning Outcomes Achievement

A classification system is typically used to determine the level of achievement of learning outcomes, such as:

Interpretation of Assessment Results

- If the percentage or score falls within the "Achieved" range, this indicates that the program has successfully met the learning outcome.
- The "Partially Achieved" range suggests the need to continue development in specific areas.
- The "Not Achieved" range requires a comprehensive review of the program design, assessment tools, and teaching methods.

Level	Description	Numeric Range (5-point scale)
Achieved	Targets fully met or exceeded	4 - 5
Partially Achieved	Targets met to an acceptable level, but improvements needed	3 - 3.9
Not Achieved	Targets not met sufficiently, requiring corrective action	1 - 2.9

Interpretation of Evaluation Results

- A score within the "Achieved" range indicates successful outcome achievement.
- "Partially Achieved" suggests a need for targeted improvement.
- "Not Achieved" calls for a redesign of the program or instructional strategies.

Sample Evaluation Table

Learning Outcome	Target (%)	Achieved (%)	Achievement Level	Notes
Applies analytical skills	75	70	Partially Achieved	Requires enhancement in application skills
Adheres to professional ethics	80	85	Achieved	Strong and reassuring results
Explains management concepts	75	60	Not Achieved	Curriculum redesign required

Importance of Outcome Achievement Evaluation

- Assesses the quality of the educational process in achieving objectives.
- Guides development efforts to areas needing improvement.
- Serves as a basis for performance reports and enhancement plans.
- Ensures sustained educational quality and alignment with accreditation standards.

3.4 Comparing Performance to Targets and Benchmarks (Internal, External, Sectoral)

Comparing program performance against targets and benchmarks is a key step in evaluating learning outcomes. It places results in context, enabling the program to assess whether goals are met and how its outcomes align with recognized standards.

Types of Benchmarking

1. Internal Benchmarking: Compares program performance with historical data from within the same institution. Useful for tracking trends over time.
Example: Compare the current year's outcome achievement with the past three years.
2. External Benchmarking: Involves comparing the program's results with similar programs in other institutions or with national/international accreditation standards.
Example: Compare the Business Administration program's outcomes with those from another accredited university.
3. Sector Benchmarking: Compares program performance against expectations set by industry or professional sectors to ensure alignment with labor market needs.
Example: Compare graduate competencies with professional certification requirements in finance or IT sectors.

Benchmarking Process

- Identify data sources for each type of benchmarking.
- Collect and analyze data from internal, external, and sectoral sources.
- Compare actual performance to targets and benchmarks using quantitative and qualitative indicators.
- Identify gaps and improvement opportunities based on comparisons.
- Provide recommendations for improvement.

Sample Performance Comparison Table

Learning Outcome	Current (%)	Target (%)	Internal Ref. (%)	External Ref. (%)	Sectoral Ref. (%)	Analysis & Recommendations
PLO-K1	78	80	75	79	82	Close to target; continue curriculum enhancement
PLO-S2	70	75	68	73	77	Minor gap; provide faculty training
PLO-V1	85	80	82	84	86	Strong performance; maintain current initiatives

Importance of Benchmark Comparisons

- Demonstrates the program's competitiveness locally, regionally, and globally.
- Helps identify strengths and weaknesses accurately.
- Informs data-driven decision-making for program and outcome improvements.
- Essential for academic accreditation reports and quality reviews.

3.5 Analysis by Branches and Student Groups (Geographic, Gender, Track)

Analyzing results by branches and student subgroups is vital for identifying differences in learning outcome achievement across student demographics. This analysis helps uncover potential gaps and guides targeted efforts to enhance education quality in line with student diversity.

3. Check

Aspects of Analysis

- **Geographical Distribution**:
  Comparing assessment results across different university branches such as Riyadh, Jeddah, and Dammam helps evaluate the consistency of educational quality and the achievement level of learning outcomes across locations.
- **Gender**:
  Analyzing the performance of male and female students can reveal any gender-related differences and inform tailored support strategies for each group.
- **Academic Track**:
  Analyzing differences between various program tracks, such as the general and professional tracks or sub-specializations, supports better-targeted improvements

Analysis Methodology

1. Data Collection:
Student results are categorized by branch, gender, and academic track.

2. Statistical Indicators:
Indicators such as averages, percentages, and standard deviations are calculated for each category.

3. Comparison and Interpretation:
The differences are analyzed, and potential causes are identified, such as variations in instructional quality, available resources, or student demographics.

Practical Example of Results Analysis

Category	Number of Students	Average Achievement of Learning Outcomes (%)	Notes
Riyadh Branch	200	78	Good performance with consistent results
Jeddah Branch	150	72	Need to enhance academic support
Dammam Branch	100	68	Significant drop; field visit recommended
Male Students	225	74	Average overall performance
Female Students	225	76	Slightly better performance
General Track	300	73	Balanced performance
Professional Track	150	78	Better performance due to intensive practical training

Importance of this Analysis

- Provides insight into education quality across branches and guides improvements in weaker areas.
- Helps design specialized support programs for students based on gender or track.
- Enables informed decision-making to improve the learning experience and outcomes.
- Promotes educational equity by ensuring balanced learning opportunities for all students.

3.6 Preparing the Program Learning Outcomes Assessment Report (PLOs Assessment Report)

The PLOs Assessment Report is the official document that records the results and analysis of learning outcomes assessment. It evaluates the extent to which learning outcomes were achieved, identifies gaps, and outlines recommended improvements. This report is a central tool within the PDCA cycle's "Check" phase and supports evidence-based decision-making to enhance academic program quality.

3. Check

Report Components

- **General Program Information**:
  Includes program name, department, college, academic year, and the number of participating branches.
- **Report Objectives**:
  Clarifies the purpose of the report, such as assessing annual performance of learning outcomes, analyzing gaps, and recommending improvements.
- **Targeted Learning Outcomes**:
  Lists the learning outcomes assessed during the year, including definitions.
- **Summary of Assessment Results**:
  Presents quantitative data (achievement rates) from direct and indirect assessments with a brief analysis.
- **Gap Analysis**:
  Compares results to targets, identifies gaps, and analyzes possible causes.
- **Analysis by Category**:
  Breaks down results by branch, gender, and academic track.
- **Recommendations and Improvement Plan**:
  Suggests improvement actions based on the analysis, including responsibilities and a timeline.
- **Attachments and Supporting Evidence**:
  Includes detailed tables, assessment tools, raw data, and other relevant documents.

Sample Completed Report Section (Example)

3. Check

Outcome Code	Learning Outcome	Target (%)	Direct Performance (%)	Indirect Performance (%)	Overall Performance (%)	Gap (%)	Recommendations
PLO-K1	Student explains basic concepts	75	72	78	74	1	Review instructional strategies
PLO-S2	Applies critical thinking skills	80	70	65	68	12	Faculty training workshops
PLO-V1	Demonstrates professional ethics	70	85	80	83	-13	Maintain current value-based programs

Guidelines for Report Writing

Clarity and Precision: Use clear, simple language and avoid unnecessary jargon.
Evidence-Based Analysis: Support analysis with data and concrete examples.
Logical Flow: Organize the report so that it flows logically from results to analysis to recommendations.
Balance: Cover all learning outcomes and student groups without overlooking any.
Concise and Comprehensive: Include necessary information only, without excessive detail.

Conclusion

This chapter focused on the "Check" phase of the PDCA cycle, highlighting the collection and analysis of data to evaluate the achievement of learning outcomes at the program and branch levels. It covered how to interpret results based on defined criteria and performance levels, and how tools like gap analysis and benchmarking can be used to monitor and adjust performance.

Reports summarizing these findings and identifying performance gaps provide a strong foundation for informed decision-making.
This chapter leads into the final phase of the PDCA cycle—**Act**, which will address how to develop effective improvement plans based on assessment results and implement actions to further enhance program quality and learning outcomes.

The transition from “Check” to “Act” lies at the heart of sustainability in quality systems. At the Saudi Electronic University, this ensures continuous improvement and excellence through evidence-based decisions and accurate data.

Chapter IV - Improvement (Act)

4. Improvement (Act)

Introduction

Following the collection of data and the analysis of learning outcomes results during the Check phase, the Act phase represents a critical step in the PDCA cycle to ensure the continuous enhancement of educational quality and academic program development. In this phase, the results obtained are used to identify priorities and develop actionable plans aimed at addressing performance gaps and weaknesses, while strengthening areas of success.

The improvement phase seeks to transform analysis and reports into tangible and ongoing actions that enhance program quality and support more effective achievement of learning outcomes. It also includes monitoring the implementation of improvement plans and measuring their impact to ensure sustainable development and to achieve the university's strategic goals for academic excellence.

This chapter discusses mechanisms for making improvement decisions, linking assessment results with improvement and strategic plans, tracking the outcomes of implemented changes, and documenting procedures that support quality sustainability at Saudi Electronic University.

1.4 Mechanism for Making Improvement Decisions Based on Assessment Results (Data Analysis, Action Taking)

The process of making improvement decisions based on the assessment of learning outcomes is one of the most vital stages of the PDCA cycle. It transforms the data and insights collected during the assessment and verification phases into practical actions that aim to improve academic program quality and raise student achievement. This mechanism ensures continuous improvement and the fulfillment of educational goals.

Steps in the Improvement Decision-Making Mechanism

Analyzing Assessment Results

- Review direct and indirect assessment data using quantitative and qualitative analysis.
- Use gap analysis tools to identify weak areas and performance issues.
- Prioritize problems based on the gap magnitude and their impact on outcome quality.

4. Improvement (Act)

Identifying Causes of Gaps
Examine potential causes such as curricula, teaching methods, assessment tools, or environmental factors.
Engage faculty, students, and stakeholders in discussing these causes.

Developing Improvement Recommendations
Suggest specific actions to improve content, teaching methods, and develop assessment tools.
Identify faculty training needs or update course materials.
Propose plans to improve the learning environment or available resources.

Assigning Responsibilities and Resources
Form teams or committees responsible for executing improvement recommendations.
Allocate required financial or human resources.

Developing the Improvement Plan
Prepare a clear implementation plan with objectives, steps, timeline, and follow-up and evaluation mechanisms.

Practical Example
If an analysis of a specific learning outcome shows that only 60% of students achieved the desired level, and faculty discussions reveal that the issue stems from weak engagement in the course:

Proposed Actions:
- Introduce additional interactive activities in the course such as group discussions and simulations.
- Organize training workshops for faculty on interactive learning strategies.
- Redesign assessment tools to include elements that evaluate practical skills.

Importance of the Improvement Decision-Making Mechanism

- Ensures continuous quality enhancement based on objective evidence.
- Helps focus development efforts on actual needs.
- Promotes stakeholder involvement in program development.
- Creates a dynamic learning environment responsive to modern changes and requirements.

2.4 Developing the Improvement and Follow-Up Plan (Goal Setting, Responsibilities, Timelines)

The improvement and follow-up plan is a core phase in the PDCA cycle to ensure the effective implementation of improvement recommendations derived from assessment results and analysis. This stage requires setting clear and measurable goals, accurately assigning execution responsibilities, and establishing specific timelines to track progress and confirm impact.

Components of the Improvement Plan

Defining Objectives

Develop specific and focused improvement goals based on gap analysis results to reflect increased achievement of learning outcomes or enhanced performance quality.

Example: Increase skill-based outcome achievement from 70% to 80%.

Assigning Responsibilities

Appoint teams or individuals responsible for executing each improvement action, clearly outlining the tasks of each party to ensure organized and efficient implementation.

Establishing Timelines

Define start and end dates for each step, along with regular review schedules to track the plan and adjust as needed.

This phase also includes determining when to collect new assessment data to evaluate improvement impact.

Practical Example of an Improvement Plan

Goal/Objective	Proposed Actions	Responsible Party	Timeline	Follow-Up & Evaluation
Increase achievement of skill-based outcome (PLO-S2) from 70% to 80%	- Conduct training workshops for faculty on interactive teaching strategies. - Update rubrics to clarify performance criteria.	Program coordinator and faculty members	Jan – Jun 2025	Monthly follow-up meetings, quarterly performance reports
Improve student adherence to professional values (PLO-V1)	- Offer awareness workshops on professional ethics and workplace behavior. - Enhance socially responsible extracurricular activities.	Quality unit and program coordinator	Feb – May 2025	Periodic student surveys, review of activity reports

Importance of the Improvement and Follow-Up Plan

- Transforms analysis results into practical actions that contribute to quality education.
- Provides a structured framework to monitor implementation and assess progress.
- Enhances accountability and clarifies the roles of all parties involved.
- Aligns continuous improvement with the university's strategic goals, ensuring integration and consistency.

3.4 Aligning the Improvement Plan with the University's Strategic Plan (Goal Alignment and Vision Fulfillment)

Linking the improvement plan, developed based on learning outcomes assessment results, with the university's strategic plan is a critical factor that ensures developmental efforts are aligned with the institution's broader vision and future goals. This alignment helps guide resources and activities in a way that maximizes the impact on enhancing educational quality and fulfilling the university's mission.

Importance of Aligning the Improvement Plan with the Strategic Plan

- **Achieving Institutional Alignment:** Aligning ensures that all improvement plans serve the university's strategic goals, such as enhancing educational quality, promoting scientific research, and supporting e-learning.
- **Focusing Efforts and Resources:** Directs human and material resources to priority areas, enhancing the effectiveness of development programs.
- **Enhancing Accountability and Monitoring:** Clarifies the roles and responsibilities of relevant parties in implementing the improvement plan within a unified strategic framework.
- **Supporting Accreditation and Sustainable Development:** Facilitates demonstrating the university's commitment to accreditation standards by linking assessment results to strategically directed continuous improvements.

Integration Mechanism

1. **Reviewing the University's Strategic Objectives:** Study the declared objectives in the strategic plan and identify priorities related to improving educational quality and learning outcomes.
2. **Aligning Improvement Plan Objectives with Strategic Goals:** Ensure that the improvement objectives derived from assessment results directly support the university's goals.
3. **Integrating the Improvement Plan into Operational Plans:** Include improvement actions in annual plans and institutional performance reports, with defined performance indicators.
4. **Monitoring Execution within the Strategic Framework:** Track the progress of the improvement plan within the university's overall performance monitoring system, with periodic reporting to senior management.

Applied Example

Improvement Goal	University Strategic Goal	Complementary Action	Responsible Party	Timeline
Increase achievement of applied skills learning outcomes	Enhance quality of education and blended learning	Update applied course curricula; develop faculty training programs	Program Coordinator, QA Unit	Current academic year
Promote commitment to academic and professional values	Foster university identity and national values	Conduct academic values awareness workshops; activate student engagement activities	Student Affairs Unit, QA Unit	Ongoing

4.4 Documenting and Analyzing the Impact of Improvement Actions

Documenting and analyzing the impact of improvement actions is a fundamental step in the PDCA cycle to ensure the effectiveness and sustainability of the improvement process. This phase aims to monitor the implementation of plans developed based on assessment and analysis results and measure their effect on improving learning outcomes and academic program quality.

Documenting the Implementation of Improvement Actions

- • **Recording Every Action Taken:** All implemented actions should be documented, including workshops, curriculum modifications, and assessment tool enhancements.
- • **Clarifying Responsibilities and Timelines:** Document who implemented each action and when, ensuring accountability and accurate follow-up.
- • **Using Electronic Systems:** Preferably, utilize quality management systems or dedicated databases to store records in an organized and easily retrievable manner.

Measuring the Impact of Improvement Actions

• **Post-Implementation Data Collection:** New assessment data are collected for the same learning outcomes to evaluate the effect of the improvements.

• **Performance Comparison:** Compare post-improvement results with prior ones to determine progress or increases in achievement.

• **Result Analysis:** Use statistical and qualitative analysis to interpret the data, focusing on how previous gaps have been addressed.

Example of Improvement Documentation and Impact Measurement

Improvement Action	Implementing Party	Execution Date	Pre-Improvement Result (%)	Post-Improvement Result (%)	Analysis Notes
Faculty training workshop	Quality Unit	March 2025	68	78	Notable improvement in analytical skills
Updated assessment rubrics	Program Coordinator	April 2025	70	80	Increased accuracy and student satisfaction

Importance of Documenting and Analyzing Impact

• Enables the university to continuously track the effectiveness of improvement plans.

• Supports evidence-based decision-making, ensuring sustained quality.

• Enhances transparency for regulatory and accrediting bodies.

• Provides a knowledge base for future planning and continuous improvement.

4.5 Sharing Success Stories and Best Practices (Motivation and Knowledge Sharing)

Sharing success stories and best practices is an effective tool for reinforcing a culture of quality and continuous improvement within the university. Highlighting achievements and successful experiences motivates academic and administrative teams to adopt effective practices that foster innovation and performance development.

Importance of Sharing Success Stories and Best Practices

- **Motivating Faculty and Staff:** Success stories demonstrate the real value of efforts and increase initiative.
- **Fostering Collaboration and Knowledge Sharing:** Enables sharing of effective practices among departments and campuses, accelerating development processes.
- **Supporting a Culture of Continuous Improvement:** Encourages a sustainable approach to improving education, research, and services.
- **Enhancing the University's Reputation:** Contributes to positioning the university as a leader in educational quality and academic excellence.

Mechanisms for Sharing Success Stories and Best Practices

- **Regular Workshops:** Organize sessions to showcase successful experiences and exchange knowledge among faculty and administrators.
- **Internal Publications and Reports:** Publish success stories in newsletters and annual reports.
- **Incentives and Recognition:** Acknowledge efforts and innovations through internal awards.
- **Digital Platforms:** Create online portals for exchanging best practices and successful experiences.

4. Improvement (Act)

Practical Example

At one of the university branches, a faculty team succeeded in developing an interactive model to assess students' critical thinking skills. This led to an increase in the achievement rate of this learning outcome from 65% to 85% within a single academic year. The experience was presented at a national workshop, and some elements of the model were adopted in other branches, contributing to the overall improvement of the program's performance.

5. Conclusion of the Manual

After reviewing in the previous chapters the integrated framework for measuring and assessing learning outcomes at the Saudi Electronic University in accordance with the PDCA model, the manual has covered every stage, beginning with the careful planning of learning outcomes and assessment tools, moving through the implementation of plans, data collection, and analysis, and culminating in the formulation and systematic follow-up of improvement decisions.

This manual aims to serve as a clear and comprehensive reference for faculty members, program coordinators, and academic committees. It is intended as an effective tool for enhancing the quality of education and achieving academic excellence, in alignment with national and international standards and accreditation requirements.

The commitment of all stakeholders to applying the principles outlined in this manual and working according to the principles of continuous quality improvement will undoubtedly contribute to preparing distinguished graduates who are capable of competing locally and globally, and playing an active role in national and societal development.

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