



Qatar University

The General Learning Outcome Assessment Process Guidebook

Keep it Simple!

Use SMARTS!

Specific

Measurable

Attainable

Relevant

Time-Bounded,

Simple

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Introduction

Learning Outcome Assessment in higher education institutions aims at enhancing the quality of all teaching and learning operations and to continuously improve the quality of academic programs. In order to achieve its goal of excellence in education, Qatar University developed and adopted an institutional wide General Learning Outcome Assessment Process (GLOAP) that is apt to improve academic programs offered at the university and the students' learning experience and performance.

The University established Program Learning Outcomes Assessment (PLOA) Committees at the University, College and Department levels to help ensure a standardized learning outcome assessment strategy and to develop a culture of assessment and continuous improvement within the university. The established committees oversee and manage the assessment process and monitor the implementation of assessment related activities. The University level Assessment Committee (QU-PLOA) works in close collaboration with College and Department level committees and encourages the contribution and close involvement of all university faculty and staff. The university administration sees assessment in general and Learning Outcome Assessment in particular as the shared responsibility of the university community including academic and non-academic staff. All university members are to be involved at the college and departmental levels in the development and/or implementation of assessment related processes.

Purpose of this document

The purpose of this guidebook is to introduce the University Wide General Learning Outcome Assessment Process with a focus on the contribution of assessment to the continuous improvement of academic programs offered at the university. This guidebook is intended to help academic programs understand the assessment process adopted at the university and to guide them in defining and assessing the program mission, educational objectives, and learning outcomes with the purpose of continuously improving academic programs offered at the university.

How to use this document

This is a quick reference guide to help Deans of Colleges, Heads of Departments and academic as well as non-academic staff understand the university wide adopted assessment process and to walkthrough the different phases of the process. It offers an overview of the process phases with a brief description of the steps included in each phase.

The General Learning Outcomes Assessment Process at Qatar University

The General Learning Outcome Assessment Process (GLOAP) adopted at Qatar University is based on the Six Sigma DMAIC Methodology. The DMAIC methodology includes five phases: Define; Measure; Analyze; Improve; and Control. The university assessment process adapted the DMAIC Methodology to the university needs. The "Define" phase was renamed as the "Defining and Planning" phase while the "Measure" phase was further refined into two phases namely the "Measuring" Phase and "The Data Collection and Reporting" Phase. The "Control" Phase was renamed "Control and Feedback" and is defined as a loop rather than a phase. In the adopted process, control and feedback is a continuous activity that covers all phases. A brief description of the process and its phases is shown in Figure 1.

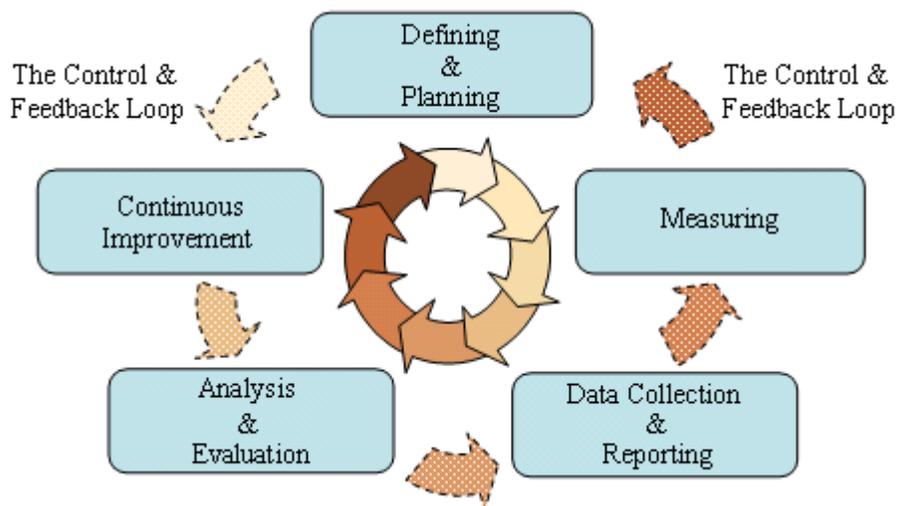


Figure 1. The General Learning Outcome Assessment Process at QU

The Assessment process at Qatar University is a continuous process that occurs throughout the academic year and across multiple years. The process was designed to help build a culture of quality assurance through self evaluation, further engage faculty and staff in the continuous evaluation and improvement of programs, promote informed change, develop and implement effective continuous improvement plans, and evaluate the impact of implemented changes.

The main focus of the assessment process is on assessing student attainment of well defined learning outcomes that capture the knowledge, skills, abilities, attitudes, and behavior students are expected to acquire through their matriculation in the program rather than assessing outputs such as grades, graduation rates, and employment statistics. The assessment process relies on both Direct and Indirect assessment methods.

The process phases and steps that are briefly described in the following sections represent the minimum process requirements. Thus, assessment of an academic program should not be limited to the steps and elements described in this document.

The Defining and Planning Phase

The Defining and Planning phase of the assessment process is one of the most complex and time-consuming phases of the process. It is a phase that leads to the definition and/or revision of the program specifications including the program mission, educational objectives, and learning outcomes; the definition of the assessment activities that identify the assessment data needed for an effective and efficient evaluation of the program; the definition of the proper assessment tool for each activity, and the definition of the assessment plans and schedule.

The main steps of the Defining and Planning phase include:

1. Define or revise the Mission statement for the program
2. Define or revise the Program Educational Objectives (PEO)
3. Define or revise the Program Learning Outcomes (PLO)

4. Define or revise the Outcome Elements (OE) associated with each PLO. Outcome Elements are specific measurable statements that indicate the specific characteristics students should exhibit in order to demonstrate desired achievement of the program learning outcomes.
5. Define or revise the curriculum mapping: Mapping courses in the curriculum to PLOs
6. Define or revise Assessment Activities (recommend at least two activities for each OE in at least two different assessment contexts). An assessment activity represents an instance of assessment that is used to measure the student attainment of PEOs, PLOs, and/or OEs.
7. Define or revise the Assessment Mapping: The identification of the specific required courses in the curriculum or other assessment contexts in which an Assessment Activity is to be implemented.
8. Define the Assessment cycle: The assessment cycle is the period during which assessment of the program mission, all PEOs and PLOs with associated OEs must be completed.
9. Define or revise the Assessment Plan: Detailed schedule and timeline for implementing Assessment Activities throughout the assessment cycle
10. Define or revise the assessment tools to be used for each assessment activity
11. Develop Rubrics (including one or more performance measures)
12. Define or revise student achievement targets for each PEO, PLO and OE

The Measuring Phase

The Measuring phase of the assessment process is the phase during which the assessment plan is implemented and assessment activities are carried out. The main steps of the Measuring phase include but may not be limited to:

1. Department level Assessment Committee (PLOA) communicates assessment activities to faculty or other person responsible for implementing the activity in accordance with the assessment plan
2. Implement PEO related indirect assessment activities in accordance with assessment plan:
 - a. Prepare assessment instruments (Employer and Alumnae surveys)
 - b. Identify recipients of assessment instruments
 - c. Send assessment instrument to identified recipients (may use online surveys)
 - d. Conduct Annual Constituency Meeting

Activities a, b, and c defined above are typically conducted only one time during each assessment cycle while activity d: constituency meeting, is to be held annually.

3. PLOA oversee implementation of PLO planned direct assessment activities: Typically such activities are implemented during each assessment period (semester) in accordance with the assessment plan. For each defined activity, designated persons are to perform the following steps:
 - a. Prepare assessment instruments
 - b. Select or define rubric for measuring student performance
 - c. Select student sample
 - d. Carry out assessment
 - e. Score student work
 - f. Complete data collection package associated with the activity

4. Head of Department or a designated person conducts senior student Exit Interviews towards the end of each semester as an indirect assessment of PLOs.

The Data Collection & Reporting Phase

The Data Collection and Reporting phase includes two main activities namely the data collection and the reporting activities. These activities define the steps needed to collect assessment data and to generate reliable assessment reports in order to facilitate and support the analysis and evaluation of assessment results during the analysis and evaluation phase. A brief description of these activities is given below.

Data Collection

The department level PLOA committee is responsible for the collection of assessment data throughout the year and for continuously monitoring the submission of the required assessment data. The main steps in the collection of assessment data for each type of the planned and implemented assessment activities are described below:

1. Employer and Alumni surveys:
 - a. Collect completed assessment instruments (Employer surveys and Alumnae surveys)
 - b. Follow up with recipients who did not complete and submit the surveys.
2. Constituency meetings:

Collect data during annual meetings and record it in the meeting minutes.
3. Exit Interviews:

Use exit interview forms to collect feedback from students expected to graduate.
4. Direct Assessment Activities:
 - a. Prepare Data Collection packages
 - b. Send Data Collection packages
 - c. Collect Data Collection packages with accompanying documents

Reporting

The main goal of the reporting activity is to aggregate collected assessment data and to present it as clearly, completely, reliably, and concisely as possible in the form of reports in order to facilitate and support the analysis and evaluation of assessment results. Reports are to be developed at the end of each assessment period (semester), at the end of each academic year, and at the conclusion of an assessment cycle.

Reporting of assessment results should include a summary of both qualitative and quantitative assessment data. Qualitative data represents feedback and comments received from either faculty, students or other program stakeholders. Quantitative data is mainly drawn from the aggregation of student scores obtained in any of the direct assessment activities implemented by the program and/or the aggregation of results obtained through surveys.

Assessment results are to be reported in the form of frequencies such as indicating how many employers believe that graduates from the program possess a particular skill or ability or how many students scored 3 in a particular course embedded assessment activity. Percentages are derived from

these frequencies to help identify in the analysis and evaluation phase whether achievement target thresholds were attained.

Different types of summary reports are to be developed in order to help in the analysis and evaluation phase, these include:

- **Course Section Reports:** To present and summarize assessment results for all assessment activities embedded in a particular section of a course.
- **Course Reports:** a report for each course where embedded assessment activities were implemented that aggregates assessment data results obtained in all offered sections of the course as presented in the Course Section Reports.
- **OE & PLOs summary Reports:** Summary reports for each OE and PLO. For each OE and PLO, it aggregates relevant assessment data as summarized in the course reports.
- **Overall PO Report:** A summary report that aggregates assessment data for all PLOs and presents the summary results for all PLOs.
- **Survey Data Reports:** A report for each type of survey that summarizes for each survey element the assessment results obtained across all received surveys.
- **Qualitative Data Reports:** It summarizes all qualitative data received from program stakeholders including faculty, members of the constituency committee, feedback from exit surveys, etc.

The main steps in the development of assessment data reports are described below:

1. Gather all collected assessment data: Data Collection Packages, received survey instruments, Exit interview forms, constituency committee meeting minutes, etc.
2. Develop draft version for all types of summary reports listed above
3. Identify missing data and when possible, collect missing data and update summary reports
4. Generate missing data report
5. Review summary reports to ensure completeness and correctness

Reports other than survey data reports are to be developed at the end of each assessment period (semester), at the end of each academic year, and at the conclusion of an assessment cycle. Survey data reports are to be developed following the implementation of the survey assessment activity. All types of surveys are to be conducted at least once during an assessment cycle, thus at least one survey data report is to be developed for each type of survey during any assessment cycle.

The Analysis and Evaluation Phase

The Analysis and Evaluation phase is one of the most critical phases of the assessment process. It is during this phase that the collected data and the summary reports produced by the Data Collection and Reporting phase are analyzed and evaluated in order to extract useful and meaningful information and to identify improvement areas and opportunities. Improvement areas and opportunities are not to be limited in scope and should address curriculum issues as well as support services and operational issues including program administration and the assessment process itself.

The analysis and evaluation phase includes two main activities, the analysis activity and the evaluation activity. While the analysis activity may be conducted by only members of the PLOA committee, the

evaluation activity requires a larger contribution from faculty and staff. The main steps of the Analysis and Evaluation activities are described in the following sub-sections.

Analysis

The main steps of the analysis activity include:

1. A detailed analysis of the percentages of attainment of PEOs and PLOs and other measures such as frequencies and average scores as included in the summary reports.
2. Compare obtained results with performance targets set during the Defining and Planning phase of the assessment process and determine if targets are met. Both lower and upper thresholds are to be considered.
3. Compare and contrast qualitative and quantitative reports.
4. Ensure validity of assessment results. This may include a brief review of the assessment tools and instruments, auditing of scores when applicable, checking consistency of scores, validation of the sample size, checking results against expected patterns, etc.
5. Compare and contrast current results with assessment results obtained in previous assessment periods and/or assessment cycles.
6. Identify causes for successes, failures, and encountered problems.
7. Generate an analysis report summarizing and documenting the outcome of the above steps.

Evaluation

The main steps of the evaluation activity include:

1. Identify faculty and staff that may contribute to the evaluation of particular assessment data and results.
2. Organize meetings with identified people to present, reflect on, discuss, and evaluate particular assessment data and results.
3. Reflect on the student's strengths and weaknesses.
4. Reflect on the adequacy of learning resources and the effectiveness of their utilization.
5. Reflect on the effectiveness of the curriculum in delivering the intended learning outcomes.
6. Reflect on the overall strengths and weaknesses of the program.
7. Reflect on the effectiveness and efficiency of the overall assessment process.
8. Identify opportunities for improvement and capture them in form of recommendations.
9. Study proposed recommendations for improvement which may require contribution and consultation with other concerned units and/or people to evaluate feasibility and compliance with program, college, and university mission, objectives and processes.
10. Generate an evaluation report summarizing and documenting the outcome of the above steps. The report should list all identified improvements areas and opportunities.

The Continuous Improvement Phase

The Continuous Improvement phase results in the adoption of specific improvement actions to effect the continuous improvement of the program and to the definition of specific action plans associated

with each of the adopted improvement actions. This is the most important phase in the assessment process in terms of added value to the program.

Improvement actions may address the program specifications including the program mission, educational objectives, and learning outcomes; the program curriculum; the assessment activities and assessment tools; the assessment plans and schedule; as well as the assessment process itself.

The main steps of the continuous improvement phase include:

1. Organize a program level meeting with all faculty and staff to:
 - a. Present Findings based on the outcome of the previous phases,
 - b. Invite further discussion on the proposed recommendations for improvements
 - c. Invite other recommendations to improve the program and the assessment process
 - d. Reach agreement and adopt specific improvement actions
2. Document adopted improvement actions. Documentation should include:
 - a. Clear description of the adopted improvement action,
 - b. The process used in reaching the decision
 - c. Link to specific assessment results and/or findings with explanations on how assessment results informed decisions.
3. For each adopted improvement action, develop a specific action plan including:
 - a. List and sequence of steps and tasks required to implement and carry out the adopted improvement action.
 - b. Implementation timeline.
 - c. People responsible for each step in the sequence.
 - d. Needed resources.
4. Oversee and monitor implementation of adopted improvement actions in accordance with associated action plan.

The Control and Feedback Loop

The Control and Feedback loop is a continuous process that covers all phases of the assessment process. The QU-PLOA and the PLOA committees at the College and the Department levels are to continuously oversee and monitor the assessment process and to periodically provide feedback to the university/college/program faculty and staff on all process related activities and results. Such feedback may be provided during events not necessarily dedicated to learning outcome assessment such as during regular university, college and/or department meetings.

Control and feedback is critical to any process. All activities and steps in the processes described in this document must be closely monitored by the PLOA Committees and any deviations from the plan and/or any identified issues must be promptly addressed and corrective actions must be promptly implemented.

In addition to regular monitoring of the assessment process phases, the PLOA committee is responsible for following up on the effect of adopted and implemented improvement actions to ensure that positive change occurred as a result of these actions.

The main tasks to be conducted by the PLOA Committee during the Control and Feedback loop include:

- Oversee and monitor all phases of the process.
- Control implementation of all assessment related activities and identify any deviations from the plan and/or from sound and good practices.
- Periodically provide feedback on all assessment related activities and results and promote good practices.
- Follow up on the implementation and evaluate the impact of improvement actions.
- Develop a report at the end of each assessment period summarizing and documenting the outcomes of the process.

Completion of the above tasks will ensure "Closing the Loop" and the continuous improvement of the program.