

# Assessment: The Ultimate Open-Ended Design Problem

## Assessment Tips With Gloria Rogers



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The process of program assessment of student learning can be understood in the context of the open-ended design problem. In designing a product or process for a client<sup>1</sup>, there are several principles that are shared among disciplines. Here are some common characteristics that can be applied to program assessment:

### Understanding the client's needs

When designing a product or process, it is important that the service provider understands the client and meets his needs. In the program assessment planning

process, the service provider must consider both the external clients, those who employ our graduates or accept them for graduate schools, as well as internal clients, our students and our faculty colleagues:

- What do graduates need to know or be able to do to succeed in the initial years after graduation and thereby satisfy our external clients' needs?
- What are the students' expectations of how their preparation will help them achieve their career goals?
- What about our faculty colleagues? How does the teaching in one course impact our colleagues who will be expecting students to have certain knowledge and skills when they take subsequent courses?

How do we know that we have met our clients' needs? These questions should drive the design of the educational process (anticipated student learning outcomes).

### Identifying constraints

In the business world, clients do not come for services with unlimited expectations or resources. The client will expect the services to be provided within given constraints, such as product or process design specifications and financial constraints. No one program can do everything or meet the needs of every possible client. By understanding your

program constraints, it is possible to manage the expectations of your internal and external clients.

For example, programs are constrained by the resources that are available to them, including the background and capability of students, the experience and composition of faculty, the quality and availability of laboratories, and financial resources. There is a saying that goes, "Price, service, quality — pick any two." When setting the program outcomes, ensure that they align with both the resources available and the processes that have been put in place to manage these resources. The outcomes must be realistic in light of the program's existing constraints.

### Teamwork

Most design problems are not solved by individuals working alone. Solutions are more often results of collaborative efforts. Program assessment requires the same type of collaboration by program faculty. This is not to say that everyone is equally involved; rather, there must be an internal process that engages the faculty in a way that optimizes both the resources

## "Most design problems are not solved by individuals working alone"

available and the likelihood that the outcome meets the clients' expectations. Someone needs to serve as the project manager and have responsibility for bringing together the necessary resources to develop a quality assurance process that continuously improves the curriculum.

### Ambiguity

By their nature, most design problems are ambiguous in that there is no one clear solution. Based on the problem's complexity, the existing constraints, and the available resources, there can be several possible solutions. The same is true for program assessment — there is no one way to develop a quality assurance process for program curriculum. Numerous processes have been developed to solve the problem; the one that fits a program best is the one that meets its need, based on constraints and best practice. Programs can learn from one another to reduce time to delivery, but the bottom line is that a program has to develop a process that fits its unique situation.

<sup>1</sup>For the purpose of this article, the word *client* will be used synonymously with the word *constituent* or *stakeholder* to denote the entity who requests or will benefit from the product or process.

## Iteration

Design processes are iterative; generally, models for a proposed solution are developed and then tested to see if they meet the necessary requirements. Data are taken and analyzed, processes are examined to see if they are valid and reliable, and projections are made to determine if the final product or process can be delivered within budget. With each test, there are modifications and retesting.

**“Every improvement in the process will optimize the final solution.”**

When doing program assessment, chances are unlikely that it will be optimal the first time. There will be cycles of refinement, not only to improve results but also to perfect the process of quality assurance itself. Measurement tools will be polished, data collection cycles will be altered, and learning outcomes will become more focused and better defined. Each step in the program assessment process will influence both previous and future steps, and every improvement in the process will optimize the final solution.

## Integration

The design process is made up of multiple steps that follow systematically and integrate. Each step informs the other steps, and generally, there are no shortcuts without jeopard-

izing the quality of the results. The same is true for the program assessment process. There are certain steps that must be followed to ensure that the findings are valid and reliable and that the information provided can lead to quality improvement. It begins with the clients and their needs. Once the clients' needs are identified, it is the program faculty's responsibility to determine what the product (curriculum) should be to satisfy those needs. In determining how to do that, faculty must consider the given constraints and determine the measurable performance criteria (specifications) that must be met. With consideration for the performance criteria, practices and strategies must be developed so that students have ample opportunity to learn, develop, practice, and get feedback on their performance, related to the criteria established. Assessment data must be collected, analyzed, and evaluated at the program level to determine whether the

**“The ultimate goal is the satisfaction for the clients, both internal and external.”**

curriculum has met the desired results. If it has not, improvements must be made. The steps in this process are integrated so that, when assessment results are evaluated, they have clear implications in the ways the program can be improved. The ultimate goal is satisfaction for the clients, both internal and external.

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Stakeholder Involvement (Those who have a vested interest in the outcome of the program)	Performance Objectives (Graduates performance 3-5 years after completing program)	Learning Outcomes (Desired knowledge, skills, attitudes, behaviors at time of completing program)	Outcomes aligned with educational practices	Program and/or Institutional Assessment	Evaluation
RATING	RATING	RATING	RATING	RATING	RATING
Stakeholders are identified	Objectives are defined	Outcomes are identified	Desired outcomes are mapped to educational practices and/or strategies	Assessment is systematic at the program/ institutional level	Assessment data are systematically reviewed
Primary stakeholders are involved in identifying educational objectives	Stakeholders provide input to development of objectives	Number of outcomes are manageable	Outcomes are mapped to both curricular and co-curricular activities	Multiple methods are used to measure each outcome	Evaluation of results are done by those who can effect change
Primary stakeholders are involved in periodic evaluation of educational objectives	Number of objectives are manageable	Outcomes are publicly documented	Practices/strategies are systematically evaluated using assessment data	Both direct and indirect measures of student learning are used to measure outcomes	Evaluation of assessment data is linked to practices
Sustained partnerships with stakeholders are developed	Objectives are aligned with mission	Outcomes are linked to performance objectives	Educational practices are modified based on evaluation of assessment data	Assessment processes are reviewed for effectiveness and efficiency	Evaluation leads to action
	Objectives are periodically assessed	Outcomes are defined to a manageable number of measurable performance indicators		Assessment methods are modified based on evaluation processes	
	Objectives are periodically evaluated for relevancy	Outcomes are aligned with mission			