

## AM Last Page: A Snapshot of Three Common Program Evaluation Approaches for Medical Education

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Program evaluation, or programmatic assessment, is the application of defensible criteria to determine the worth or merit of a program, project, or curriculum.<sup>1</sup> “Decision-oriented,” “outcomes-oriented,” and “expert-oriented” are three common approaches to program evaluation<sup>1</sup> in medical education. This snapshot provides a brief review of program evaluation within each approach along the following dimensions:

**Perspective:** Do internal stakeholders or external stakeholders drive the evaluation?

**Sensitivity:** Is the evaluation examining a broad scope of the program or delving deeply into one or two particular aspects in greater detail?

**Feasibility:** Is this evaluation reasonably straightforward to complete, or does it require specialized knowledge and resources?

**Utility:** Do the evaluation results benefit local decision makers or those in a broader audience?

**Integration of theory:** Does the evaluation rely on a theory, or is it largely atheoretical?

### Decision-oriented approach

The evaluation results help program personnel make effective decisions.<sup>1</sup> The type of data included in, the research design of, and the focus of the evaluation are selected to maximize the evaluators’ utilization of evaluation results.<sup>2</sup>

- **Perspective:** Informed by the needs of the program personnel
- **Sensitivity:** In-depth look into data at each stage of the educational process
- **Feasibility:** Can be completed with local resources but may be limited by the availability and sufficiency of the data
- **Utility:** Results largely favor local context and local decision makers, as program data are structured to reflect stages of the program (e.g., input, process, output)
- **Integration of theory:** Not directly theoretical, but the process of evaluation may draw out a theory underlying the program by identifying data points which personnel believe represent the input, process, and output of the program

#### Example of a question best answered from a decision-oriented approach

*How is our residency program distributing resources to develop novice physicians into competent physicians?*

#### Examples of decision-oriented approaches

- The CIPP model (Context, Input, Process, Product)<sup>3</sup>
- Baseline-Process-Product model<sup>4</sup>

### Outcomes-oriented approach

Objectives are solidified so that specific outcome measures can be established and tracked. The evaluation determines whether the program objectives have been met.<sup>1,3</sup>

- **Perspective:** Primarily for internal feedback to explore educational processes which lead to selected outcomes
- **Sensitivity:** Evaluation results reflect the breadth of a program’s process
- **Feasibility:** Evaluating the relationship between input (e.g., students’ knowledge, skills, and attitudes prior to participation in the program) and output and outcomes (e.g., proximal or distal curriculum objectives or students’ postparticipation knowledge, skills, and attitudes) may require specially trained educationalists
- **Utility:** Results are generally highly contextual<sup>5</sup> and useful for local program and curriculum planning and development; however, results may provide broader utility by explaining educational effectiveness of programs across a spectrum of outcomes<sup>5</sup>
- **Integration of theory:** Helpful for drawing out underlying assumptions and for framing the activities of the program

#### Example of questions best answered from an outcomes-oriented approach

- *Is our curriculum meeting its objectives?*
- *Is our longitudinal curriculum making medical students more empathetic to patients during their residency training?*

#### Examples of outcomes-oriented approaches

- Logic modeling<sup>1</sup>
- Curriculum evaluation

### Expertise-oriented approach

The evaluator relies on an external expert to determine the value of various program criteria and data points,<sup>2</sup> and the program evaluation results are judged by an expert.<sup>1</sup>

- **Perspective:** Externally driven process for identifying which data points (e.g., duty hours, types of surgical cases observed, or number of publications) represent quality
- **Sensitivity:** Often a broad look across the program, but results could trigger in-depth analysis of some aspects
- **Feasibility:** Generally approachable with local resources, though some elements, such as gathering and analyzing qualitative data, may require additional specialization
- **Utility:** Results generally framed to meet external requirements
- **Integration of theory:** Generally atheoretical, as data are included to demonstrate standards of performance

#### Example of a question best answered from an expertise-oriented approach

*Is our fellowship worthy of continued Accreditation Council of Graduate Medical Education accreditation?*

#### An example of an expertise-oriented approach

Self-study evaluation (e.g., to fulfill accreditation requirements)

#### References

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