

Module 6 – Topic 4

Evaluation Design

Designing the evaluation is the total process of identifying questions, specifying a plan for collecting and analyzing data, reporting results, and getting the results used.

Once the key evaluation questions are decided, the next step is to select an evaluation design approach that is appropriate to answer those questions. In general, the evaluation design consists of:

- Evaluation questions and sub-questions
- Indicators and measures
- Data sources
- Sample
- Data collection methods and instruments
- Methodology for data analysis

Specification of the evaluation design requires a thorough process. A flawed design would limit the ability of evaluators to make solid conclusions about the intervention. At worst, it could render the entire evaluation exercise useless.

Refer to illustration

Evaluation Design Matrix

Design Matrix Planning Instrument for:					
Questions	Sub-questions	Type of Question	Design	Measures or Indicators	Criteria for Normative Questions

Data Sources	Sample	Data Collection Instrument	Data Analysis	Comments

Source: IPDET (2007)

There are several evaluation design approaches to choose from. IPDET (2007) lists the common designs that respond to descriptive, normative or cause-effect questions.

Designs for descriptive questions

Descriptive questions generally use non-experimental designs. Non-experimental designs do not involve a comparison group that did not receive the intervention. They focus only on those who received the intervention. The common designs are:

- *One shot.* A one-shot design is a look at the group receiving an intervention at one point in time, following the treatment or intervention. This can be used to answer questions such as “How many women were treated?” or “How satisfied are the women with the services they received?”
- *Cross-sectional.* Cross sectional design shows a snapshot at one point in time but looks into sub-group responses. The sub-groups may be based on age, gender, income, education, ethnicity, or amount of intervention received. This design is often used with a survey method.
- *Before-and-after.* Before-and-after design looks at group characteristics before and after the intervention (also called the pre- and post-intervention characteristics). There is no comparison group. For example, participants to a Food-for-School program can be asked whether the program improved school attendance.
- *Time series.* Time series design looks for changes over time (either after or before and after, the intervention) in order to discern trends. They can be simple time series designs or cross-sectional designs. For example, child mortality rates might be examined before and after an intervention, providing maternal nutrition supplements, to identify the trends.
- *Longitudinal.* Longitudinal study is one in which repeated measures of the same variable are taken from the same people (or from a sample of groups in the same population). A panel design is a special type of longitudinal design in which a smaller group of people is tracked at multiple points in time, and their experiences are recorded in considerable detail. For example, tracking the same families receiving cash transfer over a period of time to find out how the intervention affected their transition into and out of poverty.
- *Case studies.* The descriptive case study collects in-depth information over time to describe what implementation of the intervention looked like on the ground and why things happened the way they did.

Designs for normative questions

The logic for normative questions is similar to descriptive questions, except that normative questions are always assessed against a criterion. The difference between answering a normative and descriptive questions is only that there is a specified goal, target or standard to

be reached and the actual findings are compared to that standard. Generally, the same designs work for normative questions as descriptive questions. To recall, these are:

- One shot
- Cross-sectional
- Before-and-after
- Time series
- Longitudinal
- Case studies

Designs for cause-effect questions

When answering cause-effect questions, evaluation design needs to address the question “What would the situation have been if the intervention had not taken place?”

In order to evaluate impact, one or more types of designs may be considered:

- *Experimental design.* The experimental design is the classic design. It is sometimes called the true experiment and is considered the strongest design for cause-effect questions. Random assignment is an essential component of experimental design. This assures that comparison groups are comparable. One group is randomly assigned to receive the intervention and another randomly assigned group serves as the control group and does not receive the intervention. Experimental designs usually contain before-and-after measures for the comparison groups.
- *Quasi-experimental design.* The quasi-experimental design is similar to true experiment except that the comparison groups have not been formed by random assignment. It is used to carry out evaluation when it is not possible to construct treatment and control groups using random assignments. Sometimes, a comparison group is created by matching key characteristics.
- *Correlational design.* Correlational design is often used when answering questions about relationships. Correlational designs can be used with data already available, or with new data. For example, to find out if having a higher education among women is related to lower maternal mortality, a correlation design could be used. However, correlational evidence alone cannot establish causality.
- *Case study design.* A case study design is used when the intention is to gain an in-depth understanding of a process, event or situation. It is especially useful when the intervention is relatively innovative or experimental or not well understood. For example, to learn more about people’s choices about using a private clinic for immunization, a narrowly defined geographic area can be studied instead of doing it on a national scale. Cases might be selected in several ways: randomly or purposively (best case, typical case, worst case, or mix).
- *Non-experimental design.* Non-experimental designs do not involve a comparison group that did not receive the intervention.

Linkages between Evaluation Questions and Design

Type of Evaluation Question	Evaluation Design
Descriptive questions	Non-experimental; quasi-experimental, or qualitative approaches
Normative questions	Non-experimental; quasi-experimental, or qualitative approaches Plus goals/standards/needs assessment
Cause-effect questions	Experimental, quasi-experimental, or non-experimental with in-depth causal tracing

Source: IPDET (2007)
