

## Assessing Research Protocols: Program Evaluation

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Evaluation is the systemic collection of information about the activities, characteristics, and outcomes of programs in order to judge program worth, improve program effectiveness, and/or inform decisions about future program (see Patton, 1997). Specifically program evaluation can be defined as a “process by which a program is examined to determine whether it is meeting its goals and objectives through the activities taking place and in the manner expected (Wellesley Institute, 2010).

Purpose (Grembowski, 2001)

Program evaluations will serve five key purposes:

1. To support program improvement
2. To meet stakeholder demands for oversight and compliance
3. The assess the value of programs
4. To learn more about a particular issue
5. Engage participants to improve outcomes

Types of Program Evaluation (Royce et al, 2009; Patton, 1997)

Table X. Types of Program Evaluation

Type	Description	Types of Questions asked
<b><i>Formative</i></b>	Seeks to explore how a program is developing with the intention of modifying interventions prior to full implementation.	What is working? What needs to be improved? How can it be improved?
<b><i>Summative</i></b>	Aims to provide information on the worth, effectiveness, and efficacy of a program	What results occur? With whom, under what conditions, at what cost?
<b><i>Process</i></b>	Aims to provide information about the entire life-cycle of a program from development, through implementation to outcomes.	In what context is the program delivered? What resources are available? How was the program implemented? What were the key outcomes linked to program activities?
<b><i>Developmental</i></b>	Similar to process evaluation, however the intention is to provide feedback to program leaders throughout the program development and implementation in order to improve program outcomes. The evaluator is part of the program development process.	<i>As above but with embedded recommendations for improvement put forward by the evaluator who is part of the program development team.</i>

### ***Realist evaluation***

Realist evaluations, an approach pioneered by Pawson and Tilley (1997), evaluate programs through an examination of context, processes and outcomes. The key difference between realist evaluations and process evaluations is the focus on theory-testing. Realist evaluations seek to use findings to refine program theory in an effort to “better understanding why and when innovations work” (Greenhalgh, 2009,

p.396). Realist evaluations draw on interpretive case study principles and to rigorously evaluate cases. Key processes to realist evaluations include:

- Careful case selection, seeking multiple disconfirming case examples
- Full immersion in case by evaluators
- Meticulous collection and analysis of data, and
- Reflexive and iterative theory testing and building (Greenhalgh, 2009).

### Steps in program evaluation

In any type of program evaluation there are commonly six steps in the process which are briefly outlined below. The Evaluation Centre for Complex Health Interventions (TECCHI) suggests a 10 step approach which is similar to what is defined below. The steps here reflect program evaluations more broadly than those for health interventions specifically (see Royce et al, 2009).

#### ***Step 1: Engage stakeholders***

In this step you identified all key stakeholders involved in the program. This includes: 1) those involved in development and implementation of programs; 2) those affected by the program; 3) program users; 4) program partners; 5) program funders. These individuals should be taken into account in order to ensure evaluations will be of value to all key stakeholders.

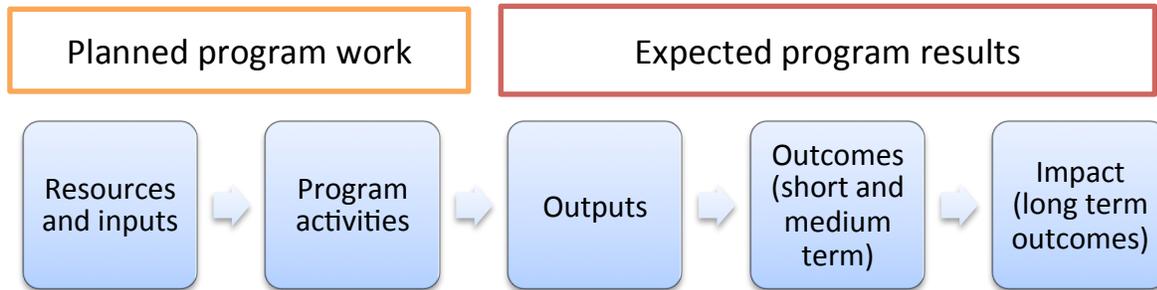
#### ***Step 2: Describe the program***

In this step you defined the program in terms of: 1) the need/issue being addressed by the program 2) the expected effects of the program; 3) activities involved; 4) resources needed/required/used; 5) the stage of program development; 6) the context in which the program is being delivered (i.e. neighbourhood, partners); 7) the program **logic model**.

**Logic models** are visual depictions of the relationships between resources invested, activities taken place, and anticipated short- medium and long-term outcomes. The logic model embeds assumptions about how the program will affect outcomes. In many ways logic models are viewed as the *core* of a program evaluation.

Simple logic models can be broken down into five key elements (see W.K. Kellogg Foundation, 2004)

Figure X. Simple logic model



### ***Step 3: Focus the evaluation***

This step involves refining the evaluation design based on what is determined through the first two steps. In this stage:

- The purpose of the evaluation should be clarified (i.e. realist vs. summative)
- Identify both the users (individuals who will receive the findings) and uses (ways the information will be applied) of the evaluation
- Clarify the evaluation questions that will be asked
- Clearly outline the methods that will be used to answer the evaluation questions. Evaluation methods may be experimental (like an RCT) or take on more of a case study approach.
- Roles and responsibilities among those who will execute the evaluation should be established. This should also include provisions for modifying programs and addressing recommendations in the case of developmental evaluations.

### ***Steps 4 & 5: Gather credible evidence and justify conclusions***

These steps are similar to data gathering and analysis strategies presented in the other sections of these sessions. In this step the evaluators should clarify the key indicators for outcomes of interest, anticipated sources of data, the quality of that data, and logistical issues with regard to data capture and analysis. The logic model (step 2) and evaluation design (step 3) should inform and justify which indicators are selected. Logistics identified here should inform program evaluation timelines and expected deliverables. Standards regarding primary data gathering through qualitative and quantitative methods should be adhered to in order to ensure appropriate rigor.

In order to justify conclusions about the evaluation and recommendations, appropriate and rigorous analytic strategies should be used. As is the case in research methods more broadly the analysis should support answering evaluation questions previously established. In the case of evaluation, a clear judgment regarding whether to continue, expand, redesign or terminate the program should be provided.

### ***Step 6: Ensure use and share lessons learned***

This step is intended to ensure that program evaluation findings result in some form of knowledge sharing and/or program change. It is recommended that a knowledge translation plan be put in place early in which evaluators clarify how program evaluation findings will be disseminated and shared within and outside of the program, and what forms of follow-up activities may be planned (i.e. ensuring program implement recommended changes). The strategy should pay special attention to the intended users of the evaluation data (identified in Step 3).

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## **Program Evaluation Checklists**

See the Western Michigan University Evaluation Center for a comprehensive set of evaluation checklists: [www.wmich.edu/evalctr/checklists/](http://www.wmich.edu/evalctr/checklists/). Here we cover the evaluation design checklist ([http://www.wmich.edu/evalctr/archive\\_checklists/evaldesign.pdf](http://www.wmich.edu/evalctr/archive_checklists/evaldesign.pdf)) developed by Daniel L. Stufflebeam, a prominent evaluation scientist and academic. The design checklist is intended as a guide of the key issues that should be addressed when planning and conducting program evaluations. Many of these issues should be reflected in a proposal and/or evaluation plan.

### **A. Focusing the Evaluation**

1. Determine and clarify the object of the evaluation (program/activity) and the main client.
2. Considering that different audiences need different information from an evaluation, identify the major level(s) of audiences to be served, e.g., local, state, and/or national or, within an organization, governance, administration, staff, funders, beneficiaries, other constituents.
3. For each level, identify the main intended users of evaluation findings.
4. As feasible, engage representatives of the user groups to identify their priority questions, desired information, preferred evaluative criteria, preferred evaluation approach, intended uses of findings, nature and timing of needed reports, and concerns related to the projected evaluation.
5. Identify parties who might be harmed as a consequence of the evaluation and invite and seriously consider their input before deciding to conduct the evaluation.
6. Ask about the logic underlying the program; identify factors that led to the need for the evaluation; and examine the relevant policy, political, cultural, organizational, and historical contexts.
7. Identify and address potential barriers to the evaluation, e.g., human subject review requirements; needs and possibilities of assuring confidentiality and anonymity; ethical considerations; potential conflicts of interest; opponents of the program and/or evaluation; issues of race, culture, and language; need for information from “vulnerable” populations; need to gather highly sensitive information; and the availability of needed funds.
8. Identify and review previous evaluations of the program; evaluations of similar programs in similar settings; pertinent literature; any previous, relevant needs assessment; and other information having relevance to the evaluation.

9. Clarify the nature of needed evaluation reports.
10. Determine the extent to which the evaluation should and practically can present recommendations as well as conclusions.
11. Determine the evaluation model or approach that will guide the evaluation, taking into consideration client/stakeholder preferences and previous similar evaluations.
12. Determine the extent to which the evaluation will receive needed cooperation and assistance from the client and other stakeholders.
13. Make a realistic appraisal of the feasibility of proceeding with the evaluation, as projected by the sponsor and under a possible reduction in scope.
14. With the client clarify standards for judging the evaluation, key evaluation questions, information requirements, interpretive criteria, general time frame, needed evaluator qualifications, possible arrangements for a metaevaluation, and a ballpark allowable cost for the evaluation.
15. Make clear to the client and other stakeholders what realistically can be accomplished in the projected evaluation, given the context and relevant constraints, and agree on an appropriate scope for the study.

## **B. Collecting Information**

1. Consider collecting a wide range of information about the program, e.g., context, history, beneficiaries, benefactors, goals and structure of the program, contrast to similar program, schedule, resources, staff qualifications, implementation, main effects, side effects, reputation, judgments by stakeholders, sustainability, and transportability.
2. Project the methodological framework(s) within which information will be collected, e.g., case study, sample survey, comparative experiment, and/or multimethod field study.
3. Identify the sources of the needed information, e.g., documents, filed information, institutional information systems/databases, financial records, beneficiaries, staff, funders, experts, government officials, and/or community interest groups.
4. Determine the instruments and methods for collecting the needed information, e.g., interviews, participant observers, focus groups, literature review, search of archives, Delphi, survey, rating scales, knowledge tests, debates, site visits, photography, video records, log diaries, goal-free study, and/or case study.
5. Specify the sampling procedure(s) to be employed with each method, e.g., purposive, probability, and/or convenience.
6. As feasible, ensure that each main evaluation question is addressed by multiple methods and/or multiple data points on a given method.

7. Project a schedule for information collection, depicting times when each information source and each information collection device will be engaged.
8. Specify who will be responsible for collecting the respective sets of information.
9. Provide the client with a rationale for why the projected range of data is needed and identify those data that are most important.
10. Review the data collection plan in relationship to available resources and other constraints and, with the client and as appropriate, consider reducing the projected data collection to what is both feasible and most important.

**C. Organizing Information**

1. Develop plans for coding, verifying, filing, keeping secure, and retrieving obtained information.
2. Consider setting up a database for the obtained information.
3. Itemize the computer software, equipment, facilities, materials, etc. required to process, maintain, and control access to the evaluation's information.

**D. Analyzing Information**

1. Identify bases for interpreting findings such as assessed needs of beneficiaries, objectives, mandated standards, national norms, costs and performance of the program at a previous time, costs and performance of similar programs, judgments by experts, and judgments by beneficiaries and other stakeholders.
2. Determine the needed quantitative analysis procedures and devices, e.g., descriptive statistics; trend analysis; cost analysis; main effect significance tests; tests for interactions; a posteriori significance tests; effect parameter analysis; meta-analysis; item analysis; factor analysis; regression analysis; and/or charts, tables, and graphs.
3. Determine the needed qualitative analysis procedures, e.g., qualitative thematic analysis, content analysis, summaries, scenarios, and/or contrasts of photographs.
4. Select appropriate computer programs to facilitate both the quantitative and qualitative analyses.
5. Plan to search for trends, patterns, and themes in the qualitative information.
6. Plan to contrast different subsets of qualitative and quantitative information to identify both corroborative and contradictory findings.
7. Plan to address each evaluative question by referencing and citing the relevant quantitative and qualitative information.]
8. Plan to use qualitative information to elaborate and explain quantitative findings.

9. Plan to state caveats as appropriate in consideration of any inconclusive or contradictory findings.

10. Plan to synthesize quantitative and qualitative information, e.g., by embedding quantitative information within a qualitative narrative or by embedding interview responses and other qualitative findings in the discussion of quantitative findings.

11. Anticipate that the client or other stakeholder groups may require recommendations to correct problems identified in the findings, and be prepared to explain that the same data that uncovered the problems are unlikely to provide valid direction for solving the problems.

12. Consider providing in the evaluation plan for a follow-up project to generate and validly assess alternative courses of action for solving identified problems; such procedures might include a follow-up evaluation of available alternative solution strategies, creation and evaluation of new solution strategies, engagement of experts with substantial experience in the area, review of relevant literature, and/or a working conference to chart and assess possible courses of action.

#### **E. Reporting Information**

1. In consideration of the client and different audiences, project needed evaluation reports (e.g., interim, final, and/or component-specific reports; technical appendices; executive summary; an independent metaevaluation report) and reporting formats (e.g., printed, oral, electronic, multimedia, storytelling, sociodrama, etc.)

2. Outline the contents of at least the main reports, giving special attention to how findings from different sources and methods will be synthesized to answer the main evaluation questions.

3. Consider dividing final reports into three subreports: Program Antecedents (for those who need background information), Program Implementation (for those who might want to replicate the program), and Program Results (for all members of the audience).

4. Plan to provide helpful summary tables, e.g., for each evaluative question summarize findings from each data collection procedure and also show the findings that are in agreement across different procedures.

5. In technical appendix documents, plan to include such items and information as resumes of evaluation staff, consultants, and an independent metaevaluator; data collection instruments and protocols; plans associated with specific data collection activities; reports of findings specific to particular data collection instruments and procedures; data tables; a log of data collection activities and interim reports; a summary of costs for the different evaluative activities; a summary of key issues that emerged during the evaluation and how they were addressed; and internally and externally produced explanations of how the evaluation met or failed to meet professional standards for sound evaluations.

6. As appropriate, provide for prerelease reviews of drafts and feedback workshops, as well as the issuance of finalized reports. (See the Gullickson and Stufflebeam Feedback Workshops Checklist at [www.wmich.edu/evalctr/checklists](http://www.wmich.edu/evalctr/checklists).)

7. Develop a plan and schedule for conveying the needed reports to the different audiences, e.g., the client, the program staff, a pertinent policy board, beneficiaries, and the general public.

#### F. Administering the Evaluation

1. Delineate the evaluation schedule.

2. Define staff and resource requirements and plans for meeting these requirements.

3. Evaluate the potential of the projected evaluation to meet relevant professional standards and principles, such as the AEA 2004 Guiding Principles for Evaluators, the 2003 GAO Government Auditing Standards, and The Joint Committee (1994) Program Evaluation Standards. (See Stufflebeam's Program Evaluations Metaevaluation Checklist at [www.wmich.edu/evalctr/checklists](http://www.wmich.edu/evalctr/checklists).)

4. Provide for at least internal formative and summative metaevaluations and advise the client to arrange for and fund an independent metaevaluation.

5. Delineate a budget for the evaluation. (See Horn's Checklist for Evaluation Budgets at [www.wmich.edu/evalctr/checklists](http://www.wmich.edu/evalctr/checklists).)

6. Draft an evaluation contract, defining especially right-to-know audiences, pertinent evaluator responsibilities and protocols, evaluator's editorial and report dissemination authority, and client and staff evaluation responsibilities. (See Stufflebeam's Evaluation Contracts Checklist at [www.wmich.edu/evalctr/checklists](http://www.wmich.edu/evalctr/checklists).)

7. Provide for reviewing and updating the evaluation plan and contract as needed (as new opportunities and constraints arise, such as those related to information access and budget).

#### References

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Royse, D., Thyer, B.A. & Padgett, D.K. (2009). *Program evaluation: An introduction*. Belmont, CA: Wadsworth Cengage Learning.

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## **Resources**

The Evaluation Centre for Complex Health Interventions (TECCHI)  
<http://www.torontoevaluation.ca/evaluatingcomplexity/index.html>

The Evaluation Centre at Western Michigan University, Checklists  
<http://www.wmich.edu/evalctr/checklists/>

Program Evaluation Unit, York Institute for Health Research at York University  
<http://yihr.abel.yorku.ca/peu/>