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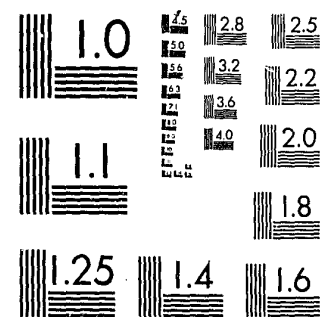
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Evaluation Research

A Guide for the Management and Staff of Juvenile Justice Projects

EVALUATION RESEARCH:

A GUIDE FOR THE MANAGEMENT AND STAFF

OF JUVENILE JUSTICE PROJECTS

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FOREWORD

The following document is designed to assist the management and staff of juvenile justice projects with the use of evaluation research in monitoring and improving their projects. This guide was originally developed as a training resource for project personnel in the Office of Juvenile Justice and Delinquency Prevention (OJJDP) National Demonstration Initiative on Restitution for Juvenile Offenders. While the examples used in the document relate to specific activities involved in implementing restitution and community service, the essential principles and methods are generic to the evaluation of virtually all juvenile justice projects.

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INTRODUCTION

Evaluation research is the collection of information on a project
to aid in decision making. The purpose of this guide is to describe
the logical steps involved in planning and conducting a project eval-
uation. These steps are:

1. Examining certain prerequisites for conducting evaluation
   research;

2. Performing an evaluability assessment in order to develop
   a conceptual model that specifies the intended project pur-
   pose, objectives, and activities;

3. Utilizing the methods of formative research to refine this
   conceptual model into an operational model of how the pro-
   ject actually functions; and,

4. Employing the methods of summative research to determine
   the project's effects.

The significance of these steps are outlined in the following four
sections.

SECTION I. PREQUISITES FOR CONDUCTING EVALUATION RESEARCH

There are two preliminary tasks to be addressed by project management and staff before evaluation research can be conducted.

The first task is to re-examine the project's purpose, objectives, and activities. The aim of this re-examination is to refine the organization and logical connections between the project's activities and objectives in achieving the project purpose. This re-examination and refinement may further serve to clarify both the nature of the project as well as its essential ingredients. While grant applications and project proposals usually make an effort to complete all or part of this task, refinement is normally required since these materials are frequently written in general terms. Future evaluation research efforts are likely to encounter major problems unless the purpose of the project is clearly specified and the objectives and activities aimed at meeting the project purpose are directly linked.

The second task is to determine both the intended use and focus of the evaluation research. The intended use of all evaluation research is to provide a method for both feeding back information to decision-makers and accounting for the use of private and public funds. Determining the specific use of a particular evaluation, however, requires careful attention to the following questions:

- What are the reasons for conducting an evaluation of the project? What are the expectations of the various parties for whom the evaluation is being conducted? (This information helps ensure that all parties understand and agree on why the evaluation is being undertaken.)

- What questions should be addressed by the evaluation? What is the availability of data necessary to answer these questions? (This information helps ensure that the reasons and expectations of the evaluation can be met.)

- What information is expected to be gained by the evaluation? How will this information be used and by whom? (This information helps ensure that the research findings will actually be used).

The answers to these questions, in conjunction with the resources available for evaluation, determine the degree to which the evaluation will be focused on each of the following areas. The components of these areas are summarized below:

- Inputs
  - *Definition*: resources used by the project.
  - *Examples*: dollars spent, numbers and types of staff, support agencies or services.

  - *Primary Evaluation Question*: to what extent and in what ways have project inputs been utilized?

- Efforts
  - *Definition*: processes used to convert and organize inputs to accomplish the project's purpose and objectives.
  - *Examples*: negotiating restitution agreements, arranging for job placements, monitoring case progress.
  - *Primary Evaluation Question*: to what extent and in what ways have project efforts been implemented?

- Outputs
  - *Definition*: immediate accomplishments of the project.
  - *Examples*: completion of restitution agreements, numbers of victims and offenders served.
  - *Primary Evaluation Question*: to what extent and in what ways have outputs been attained?

- Outcomes
  - *Definition*: long-term objectives to be accomplished.
  - *Examples*: victim satisfaction, increased sense of justice among offender/victim/community, reduced recidivism.
  - *Primary Evaluation Question*: to what extent and in what ways have the outcomes addressed the project purpose?

● Efficiency

  - *Definition:* level of project outputs and outcomes attained relative to the amount of inputs and efforts expended.

  - *Examples:* the impact of various staff activities on restitution completion rates; the impact of various services on restitution completion rates.

  - *Primary Evaluation Question:* to what extent and in what ways has the project achieved its purpose with the least costly use of resources?

Once these preliminary tasks have been completed, project management and staff can work with the researcher to develop a plan for evaluation.

SECTION II. EVALUABILITY ASSESSMENT --

DEVELOPING A CONCEPTUAL MODEL

The evaluability assessment is the first step of the researcher's plan for evaluation. It represents his/her attempt to determine whether the project can be evaluated in its present state. The evaluability of a project depends upon the extent to which evaluation prerequisites have been met. While it may appear to project personnel that this assessment partially duplicates their efforts to complete the evaluation prerequisites, it is important for the researcher, as an objective observer, to determine project success in meeting these prerequisites.

There are five tasks the researcher must complete in preparing an evaluability assessment. The result of this assessment is a conceptual model which defines and links project inputs and efforts to project outputs and outcomes.

Task One is to obtain the view of the intended users of the evaluation on the following questions.

  ● What are the resources to be used in the project?
  ● What are the major types of project activities?
  ● What are the objectives associated with these activities?
  ● What is the logic believed to link the activities with the objectives?

The aim of this task is to arrive at a beginning definition of the project. Such a beginning definition can be graphically illustrated as follows:

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┌─────────────┐        ┌─────────────┐        ┌──────────────────┐
│  RESOURCES  │  ───▶  │   PROJECT   │  ───▶  │ INTENDED CHANGE   │
│    USED     │        │  ACTIVITIES │        │  IN PROBLEM       │
└─────────────┘        └─────────────┘        └──────────────────┘

   Inputs ──────────────▶ Efforts ──────────▶ Objectives
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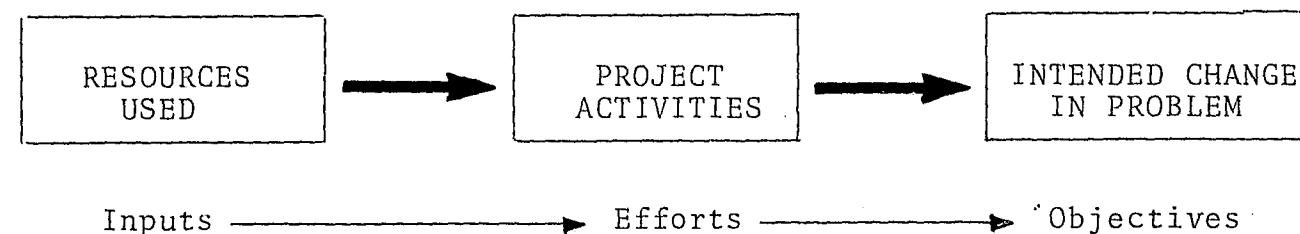
This over-simplified project model shows that certain resources (e.g., staff, equipment) are used to accomplish certain activities (e.g., individual counseling, supervision) that are assumed to result in certain kinds of changes in the defined problem (e.g., reduced recidivism, increased victim satisfaction).

Task Two is to collect additional information that will help to further refine this simplified project model in terms of activities, objectives, and their assumed relationships. This information can probably best be obtained from written documents about the project, such as grant applications, quarterly reports, and project descriptions. Additional interviews should be conducted with project personnel and other individuals who have some knowledge about the operation of the project.

Task Three involves summarizing the collected information in the form of a refined conceptual model. This model should graphically illustrate the way in which the project is believed to operate -- the activities, objectives, and the assumed causal links between them. In other words, the conceptual model represents a summary description of the project based on the information collected in the first and second tasks.

Task Four is to develop a project model that can be evaluated. This model is different from the conceptual model in that it eliminates objectives that cannot be measured and/or assumptions that cannot be tested.

Task Five is to assess the "evaluable" project model with project personnel to determine:

- If the reasons and expectations for which the evaluation was intended can be met; and,

- What specific type of evaluation is most appropriate to conduct.

These determinations require a knowledge of formative and summative research methods which are described in the following two sections.

SECTION III.   FORMATIVE EVALUATION --

DEVELOPING AN OPERATIONAL MODEL

Formative research measures the congruence between the conceptual
model and what the project actually does. The result of this re-
search is an operational model showing how project inputs and ef-
forts are actually linked to outputs and outcomes in practice. The
aim of a formative evaluation is to provide information for manage-
ment purposes, not to make rigorous judgments about project outcomes.
The role of the formative researcher is thus to assist project mana-
gers and staff in making the transition from a conceptual model to
an operational project that functions as intended. To accomplish
this, the researcher must maintain collaborative relationships with
project personnel so that information can be exchanged on a continual
basis. Long-term follow-up studies are therefore inappropriate
for formative evaluations. Instead, the focus is on helping to
re-think and modify the project as it progresses.

Management Information System

Data collection methods in formative research typically involve
observations, structured interviews, use of existing records, and
use of information routinely collected on the project through a
management information system. A management information system is
simply a set of procedures to collect, process, and report informa-
tion on a continuous basis. The data collection subsystem includes

the forms and procedures necessary for collecting data required for monitoring project performance. The data processing subsystem refers to the procedures used to store and process these data so that information can be retrieved in the future. (This subsystem can use computers but may be carried out manually in small organizations.) The reporting subsystem involves those procedures used to retrieve information from stored data, generate necessary reports, and present information in useable forms to managers.

A management information system thus represents a type of formative research that can be used to monitor ongoing performance of a project, as compared with the conceptual model indicating how the project is believed to operate. The continuous flow of information back to the project permits managers to spot weaknesses in the project's functioning and make necessary adjustments. As such, information systems play an important role in formative evaluations and should be carefully integrated with the information needs of all project decision makers.

Formative Design

Formative research involves taking a baseline measure before exposing clients to the project. This baseline measure is the standard from which change will be evaluated. As clients progress through the project, measures are recorded at specified intervals. This

design can be graphically illustrated as:

$$0_1 \ X \ 0_2 \ 0_3 \ 0_4 \ . \ . \ . \ 0_n$$

0_1 is the baseline measure, X is the project, and 0_2 to 0_n are subsequent measures. An information system can be employed in all these measures to collect, process, and feedback data showing changes in project inputs, effects, outputs, and outcomes. This information is useful in determining the validity of assumptions underlying the project. In addition, this information reflects how the project actually operates and thus can be used to refine the conceptual model.

SECTION IV. <u>SUMMATIVE EVALUATION -- DETERMINING PROJECT EFFECTS</u>

Summative evaluations are conducted to assess the outcomes or ef-
ficiency of the project on a variety of criteria -- e.g., re-arrest or
victim satisfaction. This assessment is the last link in the evalua-
tion chain and should test the project as it has developed from the
conceptual and operational models constructed in previous steps.
Summative information is fed back to project management at the
termination of the project or at the end of a pre-determined cycle.
Information is not fed back earlier because of the need to maintain
project stability during research. Major fluctuations during re-
search can produce problems in interpreting research findings and
attributing these findings to the correct factors.

Summative Design

Summative research involves taking baseline measures of two equiva-
lent client groups before exposing one group to the project. This
baseline measure is the standard from which change will be evaluated.
(This measure also offers a means of guaranteeing the equivalence
of these two groups.) The experimental group is then exposed to
the project. Upon completion of the project, both groups are again
measured and compared to determine changes resulting from the pro-
ject. This design can be graphically illustrated as:

$$O_1 \ X \ O_3 \quad \text{(experimental group)}$$

$$O_2 \quad O_4 \quad \text{(control group)}$$

O_1 and O_2 are the baseline measures, X is the project, and O_3 and O_4 are the completion measures.

The task of demonstrating project outcomes would be relatively simple if the researcher had only to observe what changes occurred following project intervention. However, changes which are totally unrelated to project intervention can occur. The factors which promote change independent of the project fall into two categories: antecedent conditions and intervening variables. The possibility that these factors may account for a significant portion of demonstrated effects raises a question about the causes of project outcomes, regardless of whether these outcomes are positive or negative.

Antecedent conditions are factors that existed prior to project intervention. With regard to the client, antecedent conditions include attitudes, motivations, and experiences. For example, an intelligent, highly motivated, and capable person entering the project may have solved his/her own problems apart from the project. With regard to the project, organizational structure and resources, experiences and attitudes of staff, and other antecedent conditions may modify the project's effects. For example, projects relying on monetary restitution from offender earnings are less likely to succeed in high unemployment areas than in areas of high labor demand.

Intervening variables are factors that come into play between the project's initiation and the evaluation of its performance. With regard

to the client, intervening variables include significant personal or situational changes. For example, increasing maturity alone often results in reduced juvenile delinquency. With regard to the project, intervening variables include major changes in the project. For example, projects may be affected by staff turnover and changes in courts and support agencies.

It is the researcher's responsibility to plan or "control" for the extraneous effects due to these factors, thus increasing the likelihood that determined outcomes are primarily attributable to the project. Random assignment of clients to experimental and control groups is the best method of controlling these extraneous effects because it creates equivalent groups. If, then, the only major difference between groups is the experimental group's restitution experience, all determined outcomes can be attributed to the project.

The final component of summative design is follow-up. Because summative evaluations focus upon project outcomes, the points at which outcome data is to be collected must be specified. While there are no absolute rules for designating appropriate follow-up periods, several considerations should be kept in mind. First, the follow-up interval should be long enough so that treatment effects can, at least in theory, be discerned. Second, the follow-up time should not be too long given the kind and extent of project intervention. Long-term effects based on a brief experience are of limited validity,

since it is probable that intervening variables will be more responsible for results than project treatment. Finally, relatively regular follow-up times should be established. This allows comparison among evaluation findings of different projects and therefore promotes greater knowledge concerning the effectiveness of new concepts and procedures.

CONCLUSION

This guide has described a number of steps which should be addressed in planning and carrying out evaluation research. These steps include:

- The completion of evaluation prerequisites by project managers and staff to increase the project's evaluability and to determine the evaluation's purposes;

- The development of a conceptual project model by the researcher to objectively assess the project's evaluability and to determine the specific type of evaluation required;

- The development of an operational project model by the researcher (working with project personnel) to decrease any divergence between the project's actual and intended operation; and,

- The assessment of project effects by the researcher to determine the project's success in achieving its intended purpose and objectives.

There are two final issues of importance to conducting evaluation research. One is whether the evaluation should be performed by external or internal personnel, and the second is who should control the evaluation.

The issue of external as compared to internal evaluation is perplexing, with advantages on each side of the question. An internal evaluation involves one conducted by staff of the project being evaluated whereas an external evaluation calls for securing the services of a researcher outside of the project. External researchers are frequently thought to be more objective, less likely to be caught up in the politics, personal loyalities, and commitments of the organization, and may also bring a broader and more novel view of evaluation to the organization. External researchers specializing in evaluation may also bring a repertoire of skills and knowledge concerning evaluation methods unavailable within the project.

Conversely, internal researchers are more likely to be in tune with the particular needs and circumstances of the project. Internal staff have a clearer understanding of project operation and may be able to use personal ties to secure the information and cooperation necessary for evaluation research. The knowledge and experience of these individuals allows them to plan and conduct the evaluation around issues of greatest utility to project managers and staff.

It should be noted that project evaluation typically creates some tension between project personnel and the researcher. Researchers may ask project managers and staff to complete forms and supply information in addition to making other demands on the project. If

the rationales for these demands are not explained to project managers and staff, the procedures may be interpreted as intrusive and disruptive. Difficulties are likely to arise if early steps are not taken to define the expectations and needs of both the project and the researcher. Mechanisms must thus be developed to ensure regular communication between the researcher and project manager so that tension can be limited. Because any evaluation involves compromises between researcher requirements for scientific rigor and the realities of the project's day-to-day organizational life, the performance of useful evaluation requires close communiction and clear understanding between the researcher and project personnel.

There is no right or wrong way to resolve the issue of external as opposed to internal evaluation, or to resolve the tensions likely to develop between the researcher and the project. They are best dealt with in the context of the particular project on which the evaluation is being planned, and in relation to the information needs of project decision makers. Nevertheless, there are several guidelines for resolving these matters. Persons conducting evaluation should have the knowledge and experience necessary to make use of scientific procedures to assess project inputs, efforts, outputs, outcomes, and efficiencies. Furthermore, they should have the personal integrity necessary to maintain this commitment under unfavorable conditions. The personal and professional qualities of the researcher may, in the final analysis, be of greater importance than whether the evaluation is conducted internally or externally.

The question of who should control the evaluation should be viewed
from the perspective that evaluation is a management tool for facil-
itating decisions. It makes sense, then, for the evaluation to be
placed under the immediate control of the person responsible for de-
cisions. An underlying assumption, of course, is that information
obtained from the evaluation will actually be used in decision making.
Clearly, this information may not be the only basis for management
decisions. Political realities, traditional ways of doing things,
particular ideological positions, as well as a variety of other fac-
tors, all enter into the decision making process. Given these
realities, evaluation research has the more modest role of providing
an additional body of information to be used in making decisions
about the project's organization and delivery of services.

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