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A Comparative Case Method for "Local Molar"[1] Program Evaluation and Adjustment

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ABSTRACT

In program monitoring, social policy researchers often use multiple case methods of analysis, comparing cases with low and high impact. In view of the low "observer" reliability of case analysis, a standard analytical approach is recommended. The article discusses three conceptual models of program implementation that provide valid standardization of program evaluation and adjustment.

Three Methods of Policy Research

In the field of data-based sociological practice, new methods and applications of social policy research and intervention are proliferating.[2] In this process of methodological diversification, three major categories of social policy research and utilization can be distinguished: (1) diagnosing a social problem, including the assessment of needs; (2) monitoring the implementation of a program aimed at reducing the problem; and (3) evaluating the intended and unintended impacts of a policy program. The relationship of those three methods to the modal cycle of policy making is illustrated in Figure 1.

Monitoring Program Implementation

Of the three methods in Model 1, implementation monitoring is different from the other two methods. While diagnosing a problem and evaluating a program's impact focus on such static tasks as, for instance, describing deviant behavior and measuring whether it has been reduced by the program, implementation
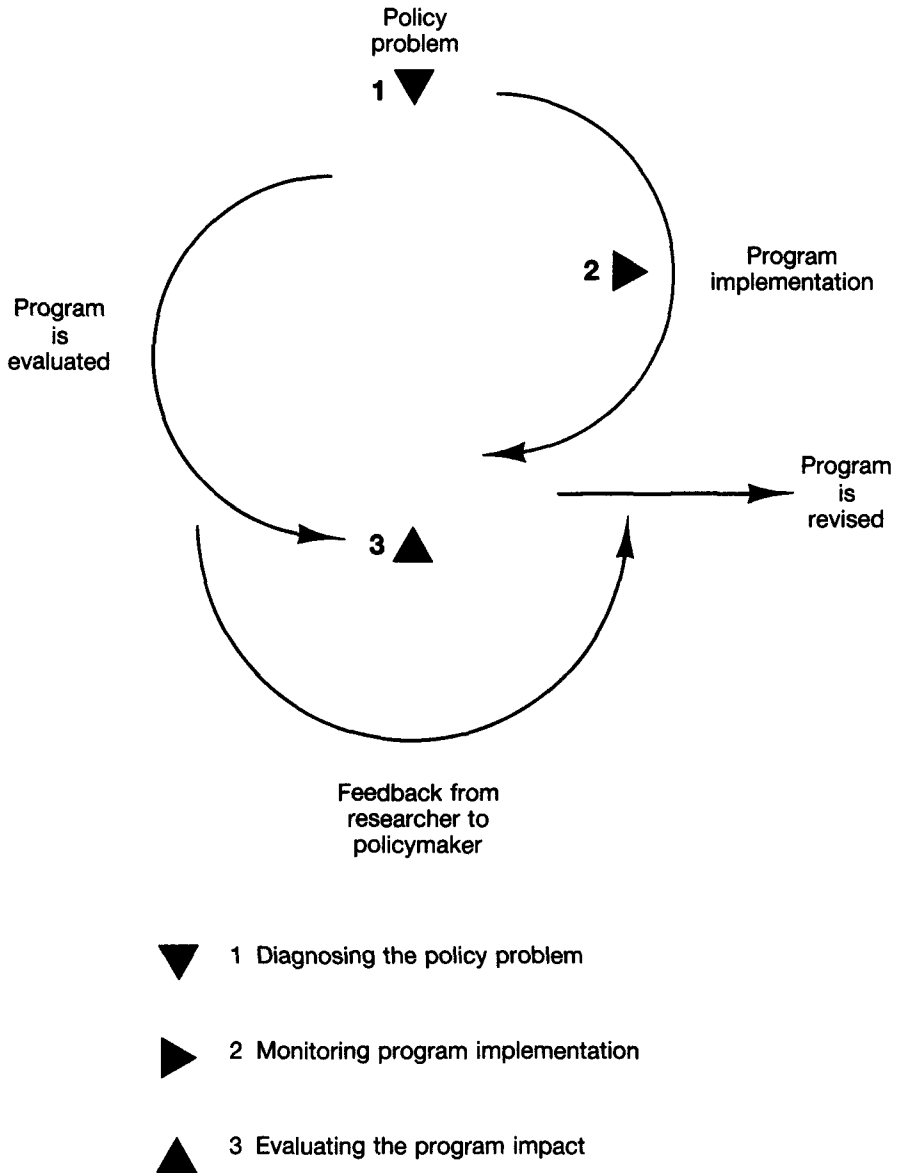
Policy
problem

Program
implementation

Program
is
evaluated

Program
is
revised

Feedback from
researcher to
policymaker

1 Diagnosing the policy problem

2 Monitoring program implementation

3 Evaluating the program impact

Figure 1: The Three Methods of Social Research in a Policy Cycle

monitoring analyzes a process over time, i.e., the steps and stages of putting a program into practice. Also, while diagnostic surveys and impact evaluation are mainly based on quantitative methods, program monitoring uses the qualitative designs of single and multiple case analysis. According to Behling and Merves (1984:8) case study designs are a powerful tool for both practitioner and client in analyzing and reducing policy problems. One of the reasons is the high contextual validity of case study research (Diesing, 1971).

However, using the method of the case study in monitoring program implementation includes a serious methodological problem. Compared with other methods, e.g., social survey and social experiment, the results of case study research are known for their low reliability. Neither single nor multiple case designs guarantee that researchers analyzing the same case will collect the same class of data, use the same concepts, and interpret the results from the same theoretical point of view. In an effort to strengthen the low reliability of case study research, Yin (1986) suggests the use of two technical devices:

1. Creating a case study data base, containing all primary and secondary data sources, case study notes, documents, tabular material and narratives.

2. Creating a case study protocol containing an overview of the project, relevant readings, issues being investigated, field procedures, questions reflecting the inquiry, and a guide for reporting.

Using a case data base and protocol will undoubtedly strengthen the so-called *instrument* reliability of program monitoring, ensuring that the same categories of data are collected and the same concepts and techniques are used. However, they will have little effect on the so-called *observer* reliability of program monitoring, as researchers still remain free to interpret the same data from different theoretical perspectives.[3] To avoid this problem, a third device is needed. Only a common theoretical framework will ensure that various researchers interpret the same results along the same theoretical lines. Thus, to guarantee observer reliability in program monitoring, use of an explicit theoretical framework of policy implementation is required. Due to the unstructured character of policy problems and programs (Mitroff, 1986), designing a framework of program implementation will include the construction of an integrative conceptual model (Scheirer, 1981).

Integrative Conceptual Models

In the literature, integrative conceptual models are known under various names: "skeletal structures" (Harre, 1976), "frames" (Rein and Schon), "integrative diagrams" (Strauss, 1987), "template structures" (Harre, 1979), "conceptual maps" (Finsterbusch and Motz, 1980), "dynamic flow chart models"

(Lippitt, 1973), "Gestalt communication modes" (Harrell Allen, 1980), and "multiple pictures of the world by multiple stakeholders" (Mitroff, 1985).

In these rather scattered publications, four different criteria were found for evaluating the usefulness of conceptual models in increasing the reliability of case study analysis. They are:

1. The conceptual model should be comprehensive, including the major relevant elements of program implementation (Lippitt, 1973).
2. The conceptual model should be integrative, reflecting the "wholistic" (Strauss, 1987), "Gestalt" (Harrell Allen, 1980), or "molar" (Campbell, 1983) nature of the policy program.
3. The conceptual model should contain the independent and dependent variables that reflect the program's action orientation (George and McKeown, 1985).
4. The conceptual model should indicate which variables are manipulable and nonmanipulable within the context of the policy program (Van de Vall and Ulrich, 1986).
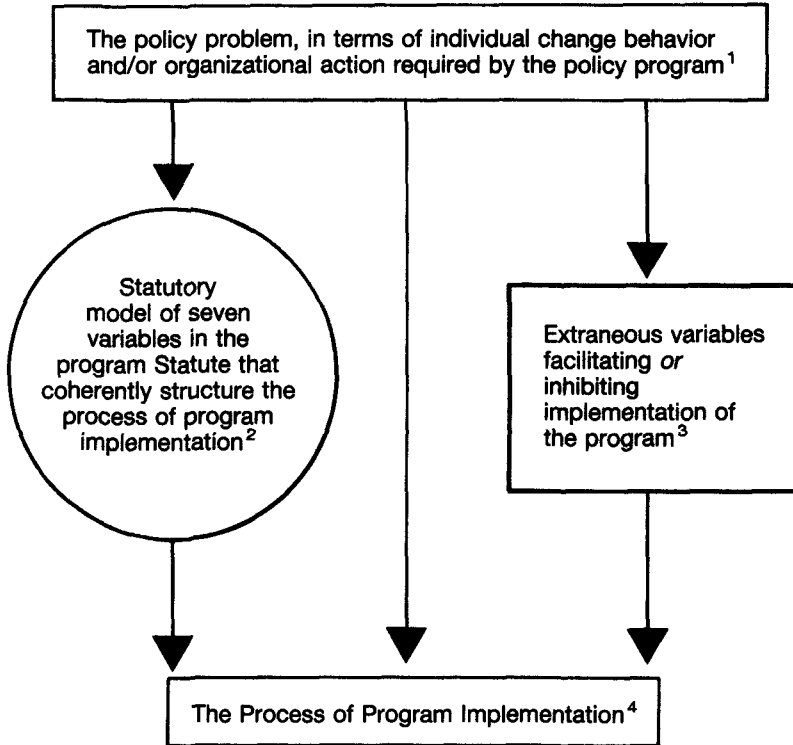
Using those four criteria, three conceptual models of program implementation shall be discussed in this paper that are available in the literature: (1) a statutory model, by Sabatier and Mazmanian (1980); (2) a contextual model, by Mayer and Greenwood (1980), and (3) a trajectory model, by Harrell Allen (1978). Use of the combined models has the effect of standardizing the theoretical analysis of program implementation. This will enhance the observer reliability of the case method of program monitoring.

A Statutory Model of Program Implementation

In a theoretical framework of program implementation Sabatier and Mazmanian (1980) describe twenty-two variables that influence program utilization. The variables are divided over four different clusters: (a) the tractability of the problem; (b) the extent to which the program Statute structures the implementation of the program; (c) external variables facilitating or inhibiting implementation; (d) the process of program implementation. The four clusters relate to each other in terms of a causal model: cluster (a) acts as an independent variable, clusters (b) and (c) operate as intervening variables, and cluster (d) is the dependent variable degree of program implementation (see Figure 2).

There is one feature of this model that makes it especially effective for strengthening the reliability of the case method of program monitoring. It is the detailed analysis in cluster (b) of seven different variables in the program's Statute that will give a coherent structure to the process of implementation. These variables are:

1. Validity of the causal theory: does the program Statute indicate how the

The policy problem, in terms of individual change behavior and/or organizational action required by the policy program[1]

Statutory model of seven variables in the program Statute that coherently structure the process of program implementation[2]

Extraneous variables facilitating *or* inhibiting implementation of the program[3]

The Process of Program Implementation[4]

[2] This part of the framework is the *'statutory model'* incorporated in our method of comparative program evaluation and adjustment.

**Figure 2: Sabatier and Mazmanian's Flow Model of Variables Involved in Policy Program Implementation**

implementing agencies will produce the required behavioral change in the target group?

2. Precision of objectives: does the program Statute provide clearly ranked instructions for the agency output and target group behavior to conform more closely to program objectives?

3. Financial resources: does the program Statute indicate the availability of funds to hire staff personnel, conduct a needs assessment and monitor program compliance?

4. Hierarchical integration: does the program Statute create an integrated hierarchical network of implementing agencies?

5. Decision rules: does the program Statute stipulate how the decision rules of the implementing agencies should support the program goal?

6. Personnel selection: has implementation been assigned to officials who are strongly committed to the achievement of program objectives?

7. External participation: does the program Statute provide liberal rules for participation by stakeholders committed to the program?[4]

Applying those criteria to the case method of program monitoring will demand two different procedures of data collecting. First, secondary data are to be collected about each of the seven statutory variables. This is not difficult, as most variables are part of the program's Statute of rules and regulations. Second, primary data are to be collected about the degree to which the agency officials conform to those of the seven variables that require compliance. Full compliance by all will be rare, due to a number of constraint variables in the social context of the program. This context will be analyzed in the next conceptual model.

A Contextual Model of Program Implementation

A context model of policy implementation has been developed by Mayer and Greenwood (1980). Core of this conceptual framework is the relationship between the policy program and the policy goal, with the inclusion of two intervening variables: (1) program implementation, and (2) bridging variables. A bridging variable is a nonmanipulable condition that operates as a prerequisite for attaining the policy goal. An example is the ability to read and write in a training program for computer operators. This core of four variables is surrounded by adjunct and constraint variables. An adjunct variable is a supplementary measure supporting goal attainment, e.g., extra payment to members of the target group for attending the program. Constraint variables are of two different types: (1) conditions in the program's task-environment, and (2) characteristics of the target population. A final type of variable is the secondary impact. This can be either an unintended effect resulting from introduction of the

CONSTRAINT VARIABLES
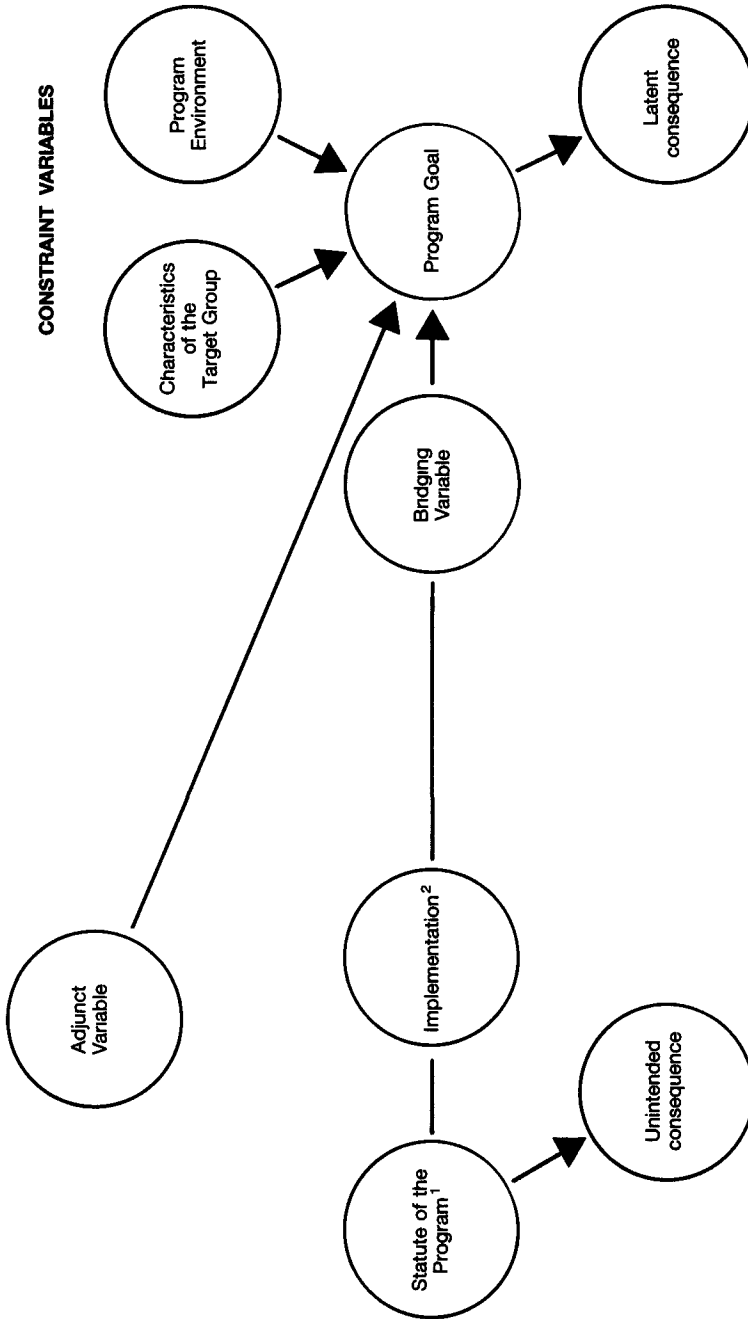
[1] Incorporated into the comparative method of program evaluation through the 'statutory' model of program implementation (Sabatier and Mazmanian, 1980)

[2] Incorporated into the comparative method of program evaluation through the 'trajectory' model of program implementation (Harrell Allen, 1978).

Figure 3: The Contextual Model of Program Implementation

program or a latent effect resulting from attaining the goal. The nine variables are interrelated in terms of a causal conceptual model illustrated in Figure 3.

Used in evaluation research, this model is instrumental in articulating and systematizing stakeholders' perceptions of the context variables that influence implementation of the program. A technical advantage is that the model is easily adjustable to programs of varying scope, e.g., to a recreational program in a nursing home as well as to a desegregation program in a metropolitan area. However, the model suffers from one serious omission: treating the implementation process as a black box, the model neglects one of the major sources of program failure (Rossi and Freeman, 1985). To enter this black box we shall use a trajectory model.

A Trajectory Model of Program Implementation

An effective device for analyzing the black box of program implementation is the DELTA chart developed by Harrell Allen (1978). This algorithm type of model is constructed with the use of an IBM flowchart template.[5] The delta model reconstructs the program's trajectory from problem to goal, using five graphic symbols: (1) Decision box, (2) Event box, (3) Logic box, (4) Time arrow, and (5) Activity box (acronym: DELTA). We shall discuss each of the symbols in Figure 4.

1. The *decision* box (diamond symbol) indicates that a step in the program has been completed and that a new decision has to be made. Three alternatives are possible: YES, continue to the next step; NO, reject the subject (client, inmate, etc.) from the program; REDO, revise previous activity using a feedback route. Each decision point contains one feedback loop for repeating or revising activities in the previous step.

2. The *event* box indicates the occurrence of a relevant event that in itself involves no time or work within the program. On the other hand, it will often trigger program activity. Examples are "apprehension" in a detention program, "initiative" in innovation adoption, "application" in a training program, "offense" in a drug testing program.

3. The *logic* box represents a consequence or function of the preceding event or activity. Of the two logical alternatives, AND indicates the inclusion of additional activities, e.g., therapy besides training, while OR indicates transfer to a substitute activity, e.g., therapy instead of training.

4. The *time* arrow represents the program's trajectory over time, with the exception of its use in a decision. Related to a decision diamond, an arrow indicates the logical consequences of the program officials' YES, NO or REDO decisions, described in item (1).

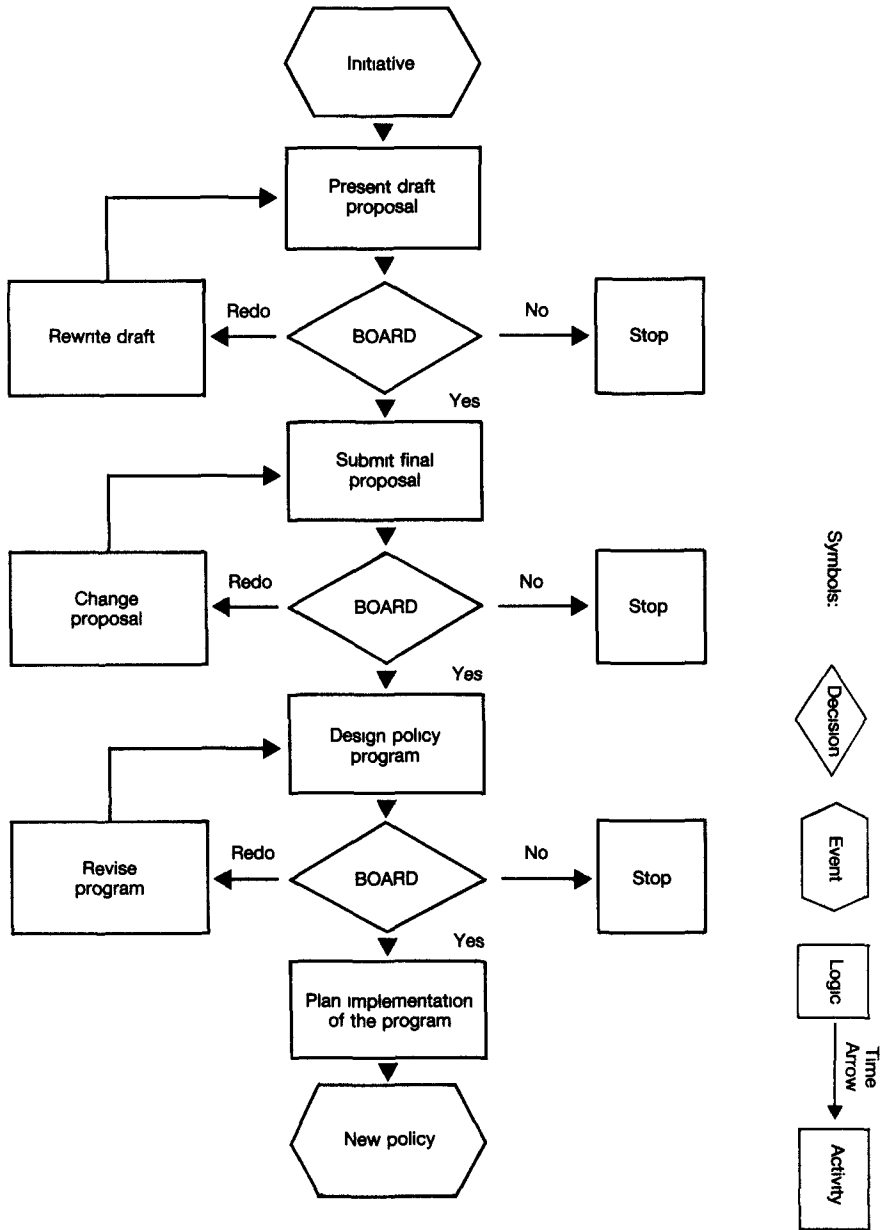5. The *activity* box indicates a specific task that requires the execution of

Figure 4: A Trajectory Model of Policy Innovation

prescribed duties by a program official. Examples depend on the content of the program: career counseling, supervisory action, testing procedures, rendering a service, writing a prescription, or teaching a course.

Use of the DELTA chart in program monitoring has several advantages. Because it compels researchers to analyze the data from the point of view of goal attainment, it adds to the observer reliability of case monitoring. Each step in the trajectory is evaluated according to the criteria of progress made toward the program goal. Second, the DELTA model can be applied to the planning, evaluation *and* the adjustment of a program. For instance, agency officials are often unaware of the fact that some of their criteria differ from those of their colleagues. Thus, comparing the criteria used by officials in each decision diamond will enhance the uniformity of the program's operation. A final advantage is that the model facilitates stakeholder communication, as it enables researchers, officials, and clients to discuss a specific step without losing sight of the entire program. Experience with DELTA in program evaluation supports Harrell Allen's claim that the model serves as a "Gestalt communication mode" in social policy research.[6]

Comparative Program Monitoring

In program monitoring, social policy researchers often use comparative or multiple-case methods of analysis. In a well-known design, two local cases of a policy program are selected, one of which scores low on policy impact while the other scores high. Comparative program monitoring is used to explain the difference in utilization. This requires, however, that a standard analytical approach is used in each of the two cases. By providing such valid standardization, the combined use of the statutory, contextual, and trajectory models of policy implementation will provide this standardization. This has the effect of increasing the observer reliability in program monitoring.[7] A strategic advantage is that the conceptual models are partly formulated in terms of the manipulable variables that policy makers are able to use in their decisions.

NOTES

1. The concept "local molar" is used by Donald Campbell (1986) in a discussion of the validity of pragmatic or a-theoretical evaluation research. The concepts are useful for data-based sociological practice: the concept "molar" indicates the policy program to consist of a complicated cluster of variables that have been put together for the reduction of a policy problem rather than for the purpose of theoretical explanation. The term "local" indicates use of a research strategy that is restricted to a specific local setting at a specific time—without concern for questions of generalizability beyond the evaluated program.

2. An example of this proliferation is that in the area of need assessment McKillip (1987:99–100) distinguishes no fewer than twenty-two different; methods of social policy research.

3. For the distinction between instrument reliability and observer reliability in case study research (Behling and Merves, 1984)

4. For a validation of the Sabatier and Mazmanian model, see Vosburgh (1986).

5. For a more detailed description of the construction of the DELTA chart, see Harrell Allen (1978, Ch. 7).

6. The content validity of the contextual and trajectory models in case program monitoring has been verified in a number of "local molar" projects of program evaluation in The Netherlands and the United States by students in a graduate seminar in organizational analysis and evaluation taught in the two countries

7. The application of the three conceptual models in program monitoring resembles certain features of the "structured focused comparison" design in multiple-case research advocated by George and McKeown (1985)

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