The Integration of Intervention and Evaluation: Avoiding Theoretical Pitfalls

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ABSTRACT

On behalf of the evaluation of policy outcomes, Mayer and Greenwood (1980) developed their model of causally related concepts, reflecting the entire policy process from the formulation of policy plans up to and including the outcomes of the resulting policy measures. This model was customized for the evaluation of treatment programs in the field of youth welfare (Mesman Schultz 1987). It turned out, each of these models provides a sound basis for several research projects. Yet, in trying to find an explanation for poor policy outcomes after ex-post-facto evaluation, one has to be prepared for two possible pitfalls. These occur when the rationale behind the choice for a particular policy measure or treatment program (the starting concept in both models) is disregarded. The first pitfall is the policy maker’s or practitioner’s tendency toward ‘fast-prototyping,’ i. e., the quick operationalization of an idea in order to solve a problem without too much concern for that idea’s validity. The second pitfall is the antinomy that may occur when policy measures or intervention programs having the same objective are simultaneously implemented. The models of Social Research & Development (Rothman 1980) or of
Intervention Research (Rothman & Thomas 1989) may serve as appropriate bases for overcoming these pitfalls since a close cooperation is required between practitioners and researchers in innovative activities.

1. A framework for effect evaluation

The Research Center for Youth Welfare (RCYW) of the University of Leiden, the Netherlands, often carries out research projects on the evaluation of policy measures and intervention programs in the field of youth welfare. However, evaluation research is usually asked for and is carried out only after—and often a long time after—a policy measure or an intervention program has been chosen or has even been implemented. For this reason, most of the evaluation researches are often highly retrospective. As a consequence, its results can only lead to conclusions about the effectiveness the policy measure or intervention program may have and to recommendations for adjustments to minimize negative consequences. This limits the impact of evaluation research to implementary and strategic parameters (Van de Vall 1980, 1986). The epistemological qualities of the assumptions or theories underlying the policy measure or the intervention program (Leeuw 1986) are too easily pushed aside or are taken for granted. In both cases two opportunities are lost. The first opportunity is to verify or falsify the assumptions or theories empirically, the second is to draw conclusions about the basis for the policy measure or the intervention program. And these very conclusions should be an agency's basis for realizing essential changes—for if the assumptions underlying the policy measure or intervention program turn out to be incorrect, it is hardly conceivable that the agencies will succeed in developing high quality programs.

In various of the RCYW’s research projects in which the effects of policy measures or the effects of intervention programs (which, after all, may be looked upon as policy measures on a meso- or even micro-level) were evaluated (Mesman Schultz, Depla & Nelen, 1987; Van den Bogaart & Wintels 1988) the conceptual framework for social policy research by Mayer and Greenwood (1980) proved to be very useful and—for scientists as well as for policy makers and practitioners—a very transparent one as point of departure. Figure 1 presents the framework schematically.
Figure 1
A conceptual framework for social policy research

In the framework the concepts A through D are causally related. Choosing a certain course of social action (policy measure or intervention method) should result in the definition of the (highly manipulable) implementation process, which in turn will bring out specific (less or non-manipulable) bridging variables and exclude other ones. All this will determine the extent to which the objectives or goals of the social action will be achieved. In the evaluation process as suggested by the framework, facilitating and constraining external factors have to be taken into consideration. Furthermore, one should be aware of the possibility of unintended consequences the onset of the action may have and of possible latent consequences in case the policy objective will be achieved. In this way the assessment of data about the relevant variables of policy measures or intervention programs within each of the concepts of the framework will deliver information—or even knowledge (Dunn & Holzner 1988)—about the reasons why the measures or programs show their particular effects. Also it will be possible to test the epistemological and implementary validity of the theories which led to the choice of the particular measure or program.

2. Disregard of basic theories

Repeatedly, a disregard of theories underlying policy measures or intervention programs shows up as a result of the RCYW evaluation research. A poignant example of this presented itself in a research project which was aimed at the construction of a measurement instrument for the evaluation of intervention programs in the field of youth welfare. Anticipating the way the instrument should be used in future research, the researchers used the framework of Mayer and Greenwood as a basis for the operationalization of variables. The framework was customized in a such way as to reflect the way in which an innovative intervention program is implemented in an organization (Mesman Schultz 1987). This is schematically represented in figure 2.

**Figure 2**
Schematic model of the implementation of innovative programs


Summarizing, the gist of the model is that in order to reduce the problems of youths (concept I: the characteristics of the target population) specific ideas and theories about the best possible method of treatment of these problems are
emphasized and operationalized (concept A: theoretical basis and definition of treatment goals). The operationalization of these ideas amounts to personal, material, and organizational measures that are to be taken for the implementation of the program (concept B: the implementation variables). During this process all sorts of unexpected phenomena, which are not manipulable in advance, may occur (concept C: bridging variables). Ultimately, this leads to the factual intervention program: the characteristics of the treatment in the daily routine (concept D: factual treatment). This should result in the intended effect of the intervention program: the moderation of one or more of the problems the youths that participated in the program initially had (concept F: the treatment effects). The entire process may be influenced by the environment in which the program is being carried out (concept II: environmental characteristics).

It was possible to develop an instrument for the measurement of the characteristics of the target population (concept I), the implementation variables (concept B), the factual treatment (concept D), and the effects of the intervention (concept F). On the one hand this meant that the research objective was not fully achieved; on the other hand this result was satisfactory because it pertains to the factual and highly manipulable variables of an intervention program (Van de Vall 1980; Van Gageldork 1987). Moreover, as a result of some subsequent research projects (Van den Bogaart, Mesman Schultz, Naayer, & Zandberg 1989; Mesman Schultz, Poot, & Van den Bogaart 1989) on the quality and usefulness of the instrument it was shown that (a) the reliability and validity of the entire instrument are high, (b) the instrument is implementable and provides information that is relevant to practitioners, and (c) it makes it possible to draw conclusions concerning the effectiveness of individual aspects of various types of intervention programs for the treatment of different kinds of problems by correlating the results of the three parts of the instrument.

Notwithstanding the usefulness of the instrument and the relevance of the information it provides in regard to the policy of youth welfare agencies, it is conspicuous that it was possible to construct an instrument for the assessment of the actual organization and treatment actions of intervention programs, but not to be able to consolidate systematically all those issues that should precede them, such as ideas, assumptions, and theories. This is caused by the fact that among the existing intervention programs only a few were developed on the basis of sound, empirically supported theories.

Surely the development of some programs was based on such a theory. Examples of such programs developed in the Netherlands are in particular the various learning theory based programs (Bartels 1986; Slot 1988; Kok, Menkehorst,
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(...)

Naayer, & Zandberg 1991) and also intervention programs based chiefly on system theory (Van den Bogaart & Wintels 1988; Wintels, Van den Bogaart, & Mesman Schultz 1989). These programs, however, are outnumbered by far by existing intervention programs that have been developed in a less solid way. For instance, in traditional residential treatment it often happens that nobody seems to know anymore how the program was developed and why the work is done in the particular way they do it. In these cases there is no or hardly any underlying theory at all, which makes it almost impossible to focus on specific aspects of the program or to try to modify these in order to increase the quality of the program.

Apart from these programs, there are two types of new, innovative measures and programs which only appear to have a sound basis of valid assumptions. As regards to the first type, it mainly concerns innovative programs, but rather a prevalent fashion or craze than empirically verified theories on human development and change is the basis for these programs. If such is the case, one can be quite sure that "fast-prototyping" is the main characteristic in the development of the program. Under the second type come policy measures or intervention programs whose theoretical bases are so antinomian that, almost by definition, intended goals can’t be fully achieved (if at all). Both types imply a pitfall for practitioners as well as evaluation researchers.

3. Two pitfalls in social practice

3.1. Fast-prototyping

The first type of development of policy measures or intervention programs—the fast-prototyped ones—refers to the first pitfall practitioners and researchers have to be aware of, especially while during the last years the popularity of such programs is sustained by a general social and political appreciation of innovative activities.

In essence fast-prototyping means the quick incorporation of fashionable ideas into apparently new intervention programs or policy measures, at which it is almost ideologically assumed that they will be effective to the solution of a wide variety of problems. Hardly any attention is given to the empirical evidence for this assumption, nor to the nature of the problems which may and which may not be solved by the program, nor to the circumstances in which the program might be effective. A good example from the last decade in the field of residential treatment of youths in the Netherlands is the assumption that “small-scale treatment” would be the panacea for the residential treatment of psychosocial...
problems in youth welfare. Instantaneously existing large institutions were replaced by small-scale units, which were accommodated in normal houses. Recent research results indicate that the main consequence of this development is that after a few years the target groups which are reached show only the less severe problems and that the effectiveness in solving these has not been raised (Zandberg 1988).

But there are more subtle ways of fast-prototyping. This is the case when parts of or even entire intervention programs, which proved to be effective to the solution of specific problems in specific situations, are being fitted in other intervention programs, in a quite different situation and meaning to solve different problems. In this case one may speak of "re-inventions" (Rogers 1983), which means that the right strategy would be to pass through the whole process of intervention research anew. However, this condition to the implementation of re-inventions often is overlooked.

Two examples of this kind of fast-prototyping can be found in the actual practice of residential treatment in the Netherlands. Based chiefly on system theory the essentially ambulant intervention program called "Hometraining" was developed rather solidly. Especially hometraining proved to be effective in preventing residential treatment of young children (Van den Bogaart & Wintels 1988). For whatever reasons, all of a sudden many respectable institutions are implementing parts of hometraining into their residential treatment programs, often not considering this a drastic re-invention. Also, by its popularity Hometraining is being applied to target groups with quite different problems than the group the program was originally developed for. Apparently for many practitioners doing Hometraining is more important than the purpose it serves.

Another example is the recent popularity of survival expeditions (Outward Bound) during residential treatment. Surely, for the solution of specific problems, such as drug addiction, or when embedded in a thought-out way in the entire residential intervention program (Mesman Schultz 1984), these intervention programs have proved their effectiveness. However, in many institutions survival expeditions are implemented rather indiscriminately in a variety of treatment programs for youths with all kinds of problems without relevant adjustments made in the daily routine of the institution.

For the mere reason that these fast-prototyped programs are based on a prevalent fashion, policymakers or practitioners very enthusiastically and convincingly advance arguments for the development of such programs. In this case, even for the more critical researcher and practitioner it will be tempting to consider these arguments valid. Moreover, the results of evaluation studies on these programs shortly after their implementation in many cases indicate a certain
effectiveness. However, it can surely be questioned whether this is caused by the quality of the programs or by the enthousiasm of the "early innovators" (Rogers 1983).

3.2. Antinomy

Especially when policy measures are concerned, a second pitfall for social practice and evaluation research may occur when the measure is a compilation of several separate "sub-measures," each of them with the purpose to achieve the same goal. Now it is conceivable that the assumptions underlying each of the sub-measures separately are valid, that they can lead to sound operationalizations, and that as a consequence the implementation of each of the sub-measures would lead to the policy's objective. But it is also possible that the effects of the changes, brought about by one of the sub-measures, may be quite contrary to the optimal conditions for a successful implementation of one or more of the other sub-measures. Then, the matter is about antinomy of the assumptions underlying a policy measure.

A good example of such an antinomy of assumptions can be found in the Netherlands today. Governmental policy aims at a large-scale reorganization of the field of youth welfare, which should lead to a higher quality of intervention programs in general. This is, in fact, facilitated by new legislation expressed in the Law on Youth Welfare (1991). The basis for this reorganization is formed by some submeasures which stem from assumptions concerning the quality of youth welfare. These submeasures are (a) regionalization, stemming from the assumption, that treatment should take place in the youth's own environment; (b) differentiation, stemming from the assumption that different types of problems should be reduced in different ways; and (c) treatment has to be as light as possible, stemming from the assumption that ambulant and short-term treatment is to be preferred to residential and long-term treatment.

Although the epistemological quality of these assumptions has not been tested, it is conceivable that each separate policy measure could lead to more effective intervention programs, simultaneous introduction—as is the intention—may prevent this. A successful implementation of the measure of regionalization, for instance, will necessarily lead to smaller potential target populations of the agencies. On the other hand, the demand for more differentiation in intervention programs assumes a great number of clients to be treated in each of these programs. This may result in redefining the target population in such a way that the assumption underlying the policy measure will have to be violated. In order to guarantee their existence each agency will be inclined to arrange the various intervention programs in such a way as to make them effective for the
population of clients with the most frequent, the "standard" problems. In the long run youths with less frequent, mostly more difficult and severe problems will not be admitted in these programs anymore, because the programs lost effectiveness in reducing these youths' problems. In other words, successful regionalization will in this sense have a de-differentiating effect. The same effect can be expected from the submeasure to minimize the intensity and duration of intervention programs, for specialized intervention programs are mainly intensive ones. These and other considerations led to the formulation of some hypotheses which state that the goal of the policy measure to raise the quality of intervention programs in youth welfare will probably not be achieved by the antinomy of assumptions underlying the Law on Youth Welfare and its resulting policy measures (Mesman Schultz 1988).

4. Toward a solution: intervention research

It was stated earlier, that in order to really optimize the quality of policy measures and intervention programs, it is imperative that the epistemological qualities of the assumptions or theories underlying them be evaluated thoroughly. Leeuw (1986) developed a research method to do this in evaluation research. However, because evaluation research most often is retrospective, it will always stay a drawback that much energy has been spent on implementary and other activities involved in the execution of policy measures and intervention programs before they are evaluated. However relevant, the negative conclusions about the basis of these activities (which add up to the statement that all the energy was spent for nothing) will at least cause a disturbance in the relationship between scientists and policymakers or practitioners for a long time to come. As a consequence, the already existing gap between scientists and practitioners may grow still deeper and wider.

A more efficient way to develop policy measures or intervention programs of high quality can be found in those research methods where the emphasis is placed on the necessity for researchers and policymakers or practitioners to cooperate intensively during the entire development process. These methods have been developed in social sciences during the last two decades and bear different names such as Developmental Research (Thomas 1979), Social Research and Development (Rothman 1980), Program Development (Slot 1986) and Intervention Research (Rothman & Thomas 1989). In all of these methods emphasis is primarily placed on the systematic translation of scientific knowledge into applicable, innovative policy measures or intervention techniques and on their factual application. Figure 3 represents the model of Social Research & Development (Rothman 1980).
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1. Problem
2. Research & Development
3. Evaluation
4. Intervention
5. Application
6. Pilot
7. Transition
8. Implementation
9. Evaluation
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Schomie model of Social Research & Development

Figure 3
In this model scientists and policymakers or practitioners cooperate closely from the very start of the development process, i.e., the definition of the social problem(s) and of the goal(s) to achieve, all the way up to its end, i.e., the widescale use of fully developed programs. Traditionally an important barrier between the scientist's and the policymaker's or practitioner's activities is to be found near stage IV in the model. Here scientists offered their recommendations or at the very best their prototypes to policymakers and practitioners, without too much concern for their feasibility. Moreover, policymakers and practitioners could take or leave the recommendations and prototypes at their own discretion and implement policy measures or intervention programs without too much concern for the soundness of their scientific basis. It is most likely this barrier will vanish necessarily by the close cooperation between scientists and policymakers or practitioners during the entire development process. By thus creating a higher degree of theoretical involvement in policy and practice, the danger of fast-prototyping and antinomy of policy measures will be minimized.

5. Final remarks

There surely are quite effective policy measures and intervention programs that were not developed according to the intervention research model described above (Mesman Schultz 1984). Thus this model is not a conditional requirement. However, there still are some objections to such programs: very often they were developed or have “grown” on the basis of personal experiences or beliefs of one or more policymakers or practitioners, and their continuance depends on individual characteristics of those individuals. Also they often fit only the specific situation in which they were developed. The concepts (mostly implicitly) used within these programs often obtain an idiosyncratic connotation specific to that kind of programs. As a result these intervention programs or parts of them are hardly adoptable and hardly implementable in other situations or other programs. Of course there has to be room for such programs, and their development, as long as they prove to be effective. But their creation remains a matter of chance hits.

To raise the quality of policy measures or intervention programs in general, their development should preferably follow the model of intervention research described above or analogous models. On the one hand researchers at least are obliged to judge and test scientific knowledge on its feasibility. Moreover, by testing the effectiveness of the resulting programs in a variety of field settings, they will be able to test the relevance of scientific assumptions and theories for social practice and thus contribute substantially to the growth of relevant scientific knowledge. On the other hand practitioners will have access to theoreti-
cal expertise in their analysis of a problem and formulation of goals to overcome these. Furthermore, by making explicit their (often extensive but mostly implicit) knowledge from experience, practitioners will be able to influence the necessary operationalizations of the theoretical concepts in such a way that the program to develop will fit their ideas and skills optimally. By cooperating closely from the start of the development of innovative programs both researchers and practitioners may at least be able to avoid the pitfalls of antinomy and fast-prototyping.

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