Methodology for participatory policy analysis

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Abstract

In the course of time it has become clear that policy analysts who use traditional formal modeling techniques have limited impact on policy making regarding complex policy problems. These kinds of problems require the analyst to combine scientific insights with subjective knowledge resources and to improve communication between the parties involved in the policy problem. A policy analyst who takes into account the need for social interaction has different participatory methods at his disposal, such as gaming/simulations, consensus conferences, and electronic meetings. Some assumptions with regard to the theoretical base, the application, and the effectiveness of participatory methods are formulated in this article. These assumptions can be tested and supplemented by means of comparative research on the effectiveness of participatory methods in different policy situations. © 2001 Elsevier Science B.V. All rights reserved.

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1. Introduction

Since the late 1960s and early 1970s, complex societal problems have been analyzed by means of systems analysis and simulation. These methods became well known through the publications of, for example, Forrester, Meadows, and the Rand Corporation. The methods are grounded in general systems theory, which perceives reality as consisting of many elements which are in many ways related to each other. The traditional systems analytic approach emphasizes the importance of formal (quantitative) modeling, rational planning, and cost–benefit analysis. It is closely linked with the mainstream operational research tradition which tries to find optimal solutions for all sorts of complex problems (cf. Rosenhead, 1989).

The application of traditional systems analytic methods to complex societal and policy problems was not always very helpful. Problems of validation arose because of the absence of adequate social scientific theories and empirical data. Moreover, the policy relevance was questioned because policy actors had difficulty understanding and using the formal models in policy practice. The systems analytic models provided partial insights and solutions for policy problems which were not automatically acceptable and suitable for actors responsible for policy implementation.
During the 1980s, systems analysts realized that much of the understanding of the problem is generated in the process of model building. Participation of the policy actors in the building process could, therefore, be useful. The participation of policy actors should enable the analyst to enrich the model by including subjective sources of knowledge in addition to the ‘objective’ knowledge derived from theories and empirical studies. Additionally, the communication between analyst and policy actors on the complex problem could be improved. As a consequence, participative policy modeling became a means of dealing with the problems of traditional systems analysis (Geurts and Vennix, 1989; Verburgh, 1994).

Besides participative modeling, many other practical tools of participatory policy analysis are currently being implemented, such as, for example, gaming/simulations, consensus conferences, and computer-based group decision support systems. The emergence of new tools follows the paths of logic-in-use. That means that new technology is developed in the field, more or less while being applied. Consequently, the same tool is often described more than once under different names and similar tools are reinvented (Mayer, 1997). It is necessary to study these new ideas and initiatives from the methodological perspective of reconstructed logic.

Some thoughts on a methodology for participatory policy analysis (PPA) are presented in this article. The aim of policy analysis, in general, is to produce and transform policy relevant information so that it may be utilized in political settings to resolve policy problems (Dunn, 1988, p. 35; Dunn, 1994). The supplementary term ‘participatory’ refers to the greater involvement in policy analysis of those who affect and are affected by a policy problem (cf. Durning, 1993). The methodology for participatory policy analysis is emerging step-by-step. The basis of the methodology was established in the 1970s. For example, the Social Systems Group at the University of Nijmegen, as many other groups in the world, started to work on new ways to use simulation. Like other practitioners, this group tried to improve communication on formal models by means of interactive or man–machine simulation. The group was strongly influenced by the publications of Richard Duke on gaming/simulations. Duke explored how gaming/simulations can contribute to communication between the actors involved in a policy problem (Duke, 1974). Several other authors also contributed to the emerging methodology. One of the earliest application of participatory policy analysis was developed by Lasswell (1960) who propagated the idea of decision seminars. Mason and Mitroff (1981) developed the assumption-challenging approach, and Enk and Hart (1985) contributed to the emergence of the structured workshop-school. Other initiatives can be found in the applications of action research and community self-surveys.

The methodology also benefitted from developments in the strategy processes in large profit-organizations. For example, the policy consulting team at Philips successfully applied participatory methods to several projects for strategic Research & Development decisions (Geurts and Weggeman, 1990; Seidel and Geurts, 1992). The application of participatory methods to strategic questions of private organizations developed much faster than the applications to policy questions of public agencies. A large part of this body of knowledge on participatory strategy formulation has developed quite separately from the policy analysis literature. Tilburg University recently initiated a research program on participatory policy analysis (Geurts, 1993; Geurts and Mayer, 1996). The research group has already produced several publications on the effects of applications of different participatory methods in different contexts (e.g., de Caluwé, 1997; Bongers et al., 1997; Joldersma, 1997; Mayer, 1997).

In the following section, some theoretical and practical arguments for a methodology for participatory policy analysis are explored. The basic assumptions of the methodology are then examined and the application of the methodology is illustrated by the practical use of participatory methods in particular contexts. Specific attention is paid to gaming/simulations, consensus conferences, and group decision support systems. We conclude with some questions on future research.
2. Theoretical and empirical arguments for participatory policy analysis

The traditional type of policy analysis has been strongly influenced by the expert approach, an approach based on a distinction between science and policy. One of the main assumptions is that the policy analyst produces the scientifically valid knowledge which policy makers need to solve policy problems. In recent years, there has been a steady flow of books criticizing the traditional type of policy analysis and arguing for a participatory type of policy analysis. The arguments can be ordered along two lines. The first line is related to the use of traditional formal models in policy making, whereas the second emphasizes the need for social interaction in order to be able to change current policies (for a more extensive analysis, see Mayer, 1997).

2.1. Formal modeling

Originally, formal modeling techniques were used in different, but related research disciplines such as systems analysis, systems dynamics, and operational research. The traditional formal modeling techniques are based on the conventional 'hard systems thinking' paradigm (Rosenhead, 1989). This paradigm is very closely related to the rational planning approach. Among the characteristics of this paradigm are the emphasis on a single objective, one single and optimal solution, a single decision-maker, and top-down planning. It also emphasizes the contribution of scientific knowledge to policy making. It is similar to the mainstream policy analysis which assumes that knowledge should be scientific and that decision-making is rational, top-down, and unicentric (Mayer, 1997, pp. 33, 37).

According to Rosenhead, the crisis in the hard systems methods and practice has been widely acknowledged. Traditional modeling can only be applied to well-structured policy problems or operational problems. Because most policy problems are 'ill-structured' or 'wicked' problems, the contribution of the traditional formal models to their solution is very limited. Policy makers' decisions are dependent on many factors other than the variables that can be dealt with in a formal mathematical model. The formal modeling perspective ignores, to some extent, the political setting in which policy making is taking place. An alternative 'soft systems thinking' paradigm can be distinguished which challenges some characteristics of the conventional paradigm. It, for example, takes into account uncertainty and conflict regarding the policy problem (Rosenhead, 1989, p. 12). Furthermore, it argues that a mathematical model is not necessarily the ultimate goal: "... increasingly, models are seen to have different and more subtle roles as instruments to support strategic thinking, groups discussions and learning in management teams." System dynamics modeling processes, for example, are seen as helpful for activating and structuring the vast amount of knowledge that an experienced team shares (Morecroft, 1992, pp. 9, 10; see also Vennix, 1996). The 'soft' modeling techniques emphasize the importance of consulting different sources of knowledge and the importance of integrating ideas and perceptions regarding the policy problem. Therefore, the definition of knowledge shifts from a scientific orientation towards a more consensual definition of knowledge. Consequently, more and more the social aspects of problem formulation and clarification are recognized which are interdependent with the cognitive aspects.

2.2. The need for social interaction

In addition to the changing definition of knowledge from scientific-oriented to consensus-oriented, it became clear that inadequate communication between policy analyst and policy actors was one of the reasons for the limited impact of policy analysis on policy making. It was argued that the relation between the policy analyst, his client, citizens, and the stakeholders should be redefined. The 'utilization of knowledge' school emphasized, for example, that policy analysts and policy makers lived in two separate communities. From the perspective of policy scientists, participation of citizens and stakeholders in policy-analytic processes is necessary for reasons of
democracy. Consequently, the policy analyst no longer should function as an external and neutral expert who avoids interfering with the researcher subject(s) as much as possible. Instead, the policy analyst should organize and facilitate participation in policy analysis of nonscientific experts, citizens, users, and other policy actors (Mayer, 1997).

This changing view on the role of the policy analyst, from an expert to a policy adviser who facilitates social interaction, is in agreement with the theoretical perspective of policy learning. In policy learning, it is assumed that policy models are developed, tested, and shaped by means of a reflective policy dialogue. The dialogue enables policy actors to learn individually as well as as a group. Instead of the term ‘dialogue’, Duke (1974) introduces the term ‘multilogue’ to refer to a conversation between multiple actors. In a multilogue, people are involved simultaneously in a process of sensemaking which could not have been possible by speaking to each individual actor separately. The role of the policy analyst is to facilitate this multilogue between the policy actors (cf. Schön, 1983; Schön and Rein, 1994).

2.3. Participative styles of policy making

The use of the participatory type of policy analysis is also being stimulated by the increasing emergence of participative styles of policy making. Participation as a style for policy making has a long and much debated history. Participation, both in the public and the private sector, reached a temporary peak in the late 1960s and early 1970s as part of an overall movement in Western societies towards democratization. After the mid-1970s, participation as a means for democratization became less popular. However, as a reaction to the fall of strategic planning, private organizations rediscovered participation as an effective means of developing policy in the complex networks surrounding them. In the public sector, public officials also became increasingly interested in interactive policy development in order to be able to deal with ineffective governmental policies.

In the public sector it was argued that governmental policies were ineffective because of the underlying traditional governance concept. The traditional governance concept assumed that government could and should regulate the behavior of other policy actors: policy making is the government’s responsibility, whereas other actors should implement governmental decisions. A new governance concept has recently emerged which assumes that policy programs are the product of complex interactions between government and non-government organizations, each seeking to influence the collectively binding decisions that have consequences for their interests (cf. Joldersma, 1997). The concept of policy network is used to refer to the interdependent relationships between actors that are involved in policy making regarding a policy problem. In a policy network, government, or even one of the other actors, can play an initiating role in order to facilitate interactive policy making. The traditional role of government as the single decision-maker is changed into the role of broker or facilitator of policy making. The concept of network management has been used to prescribe how government can try to influence policy networks in order to improve their ability to analyze and solve problems. However, policy networks are hard to govern because the actors involved show self-governing characteristics. They can be characterized as autopoetic, closed systems, which means that they are only to some extent open to stimuli from the outside, whereas their reactions to these stimuli depend completely on their internal mechanisms. They seem to be driven only by internal laws (cf. van Twist and Schaap, 1991). Government can try to ‘metagovern’ these policy networks by means of participatory methods. It can try, for example, to interweave the goals of different actors by means of new fora of debate and discussion. In such a setting, the focus of the policy analyst shifts from the single policy-making actor, the government, to the policy-making network as a whole (Mayer, 1997, p. 39).

It can be concluded that an adapted methodology of modeling is needed, which takes into account the limited contribution of a scientific expert perspective and adopts a network perspective on
policy making. It should focus on improving the process of communication between policy analyst and those who are involved in the policy network. The main goal is to increase the problem-solving capacity of actors in policy networks. Therefore, the policy analyst uses fora and tools for debate and discussion. Although the interest in the participatory type of policy analysis is growing, no general methodology for PPA exists. In the following section, we will present some of the assumptions on which such a methodology should be based.

3. Basic assumptions of the PPA methodology

A methodology for PPA should be applicable to all kinds of complex problems. Complex problems are policy issues and strategic questions which arise in intraorganizational or interorganizational settings in which many actors with different perceptions and different interests are involved. We assume that for different kind of policy problems, different kinds of policy analytic trajectories are needed. Depending on the specific circumstances, more quantitative formal methods and/or more qualitative intuitive methods should be chosen. Additionally, the environment or context of a policy issue should be analyzed to provide suggestions about how to organize and facilitate participation in policy analysis. The context as perceived by the initiator of participatory policy analysis, the client of the policy analyst, is especially important. His strategic needs and position in the policy network influences the participatory methods that can be adopted, the specific trajectories that are chosen, and the actors that are willing to participate.

PPA should be directed towards improving as well as to integrating the mental models of different actors in a policy network. The term mental model refers to the conceptual model that each actor carries in his or her mind to explain the way the business or policy operates. Mental models can be defined as “... networks of facts and concepts that mimic reality and from which executives derive their opinions of strategic issues, options, courses of action and likely outcomes” (Morecroft, 1992, pp. 12, 13). In order to deal with the world in which they live, actors develop and shape their mental model by learning-by-doing. Their mental models are linked with their position in the policy network. They differ in level of abstraction and that is why the interrelatedness of actors’ mental models can be specified by the metaphor of the ‘cone of abstraction’ (Geurts and Vennix, 1989). The cone of abstraction refers to a holistic reproduction of the different mental models as points which are located in the cone on different levels of abstraction. The policy analyst should enable communication between the actors by creating a language or other communication mode which is understandable by the different actors and which is located on a well-chosen level of abstraction. These choices have to be made after a thorough analysis of the characteristics of the policy actors participating in the policy-making process. To gain insight into the cone of abstraction, the policy analyst can make use of participatory methods of systems analysis. Through actors’ and client’s participation in the systems analysis, the policy analyst is able to create support for his conceptual model of the system and the interventions which are derived from it.

We assume that the interventions of the policy analyst are part of a participatory policy trajectory. A trajectory consists of many decisions regarding design and implementation of participatory methods of policy analysis. The design of the trajectory implies more than just the choice of a forum for debate, for example, a strategy workshop. In subsequent steps, other fora such as a game, a consensus conference or an electronic meeting, and other tools may be relevant. In fact, each step in a PPA trajectory involves many design decisions: timing, number of participants, subject matter, tools, forum formats, procedures for presenting and integrating information, etc. The PPA trajectories consist of tools, processes, and recipes, all of which have to support some criteria.

The general design criteria for PPA trajectories include: effectiveness (the trajectory has to support the problem solving around the issue at hand); consistency (each element in a PPA trajectory has to fit into the overall pattern that leads to the goal
selected); integrality (all parameters of choice are taken into account); efficiency (all elements of the trajec- tory should contribute to the goal); realizability (the costs of participation are acceptable to the participants); and flexibility (possible to adapt the trajectory to new developments).

For participatory methods for policy analysis, Geurts and Vennix (1989) derived four analytic and four process criteria respectively:

- the analysis should be decision-oriented and stimulate broad framing of the policy problem;
- a broad overview of available scientific insights should be developed;
- policy options should be developed which are creatively different, relevant, and internally consistent;
- the method should allow the derivation of logically undisputable statements;
- the method should allow step-by-step learning;
- the method should allow participation of the relevant stakeholders;
- the method should facilitate communication in which the judgements of experts and stakeholders are taking into account;
- the method should allow the integration of scientific data and judgements of experts and stakeholders.

4. Participatory methods and their application

4.1. Participatory methods

The application of participatory policy analytic methods offer participants opportunities for experimenting with policy in a safe environment. Participants take part in a policy exercise: they engage in a structured debate in order to clarify goals and generate and evaluate policy alternatives (Toth, 1988; Geurts, 1993). A variety of methods can be used to structure the debate between stakeholders. The debate may be shaped as, for example, a gaming/simulation, a consensus conference, or an electronic dispute. By applying a participatory method, the policy analyst searches for analytic quality as well as process quality. He creates a forum for communication between policy makers, experts, and other stakeholders addressing an ill-structured policy issue. Additionally, procedures for communication are developed as well as a physical and social environment in which the communication amongst participants takes place. Finally, specific tools will be chosen in order to integrate the different mental models of the participants or to generate realistic alternatives. The debate results in visible outcomes such as policy documents as well as invisible outcomes such as increased understanding, consensus, or commitment.

4.2. Gaming/simulation

Gaming/simulation has a long history. With regard to participatory policy analysis, gaming/simulation can be considered as the participatory successor of computer simulation. In a computer simulation, an attempt is made to solve policy issues step-by-step on the basis of a formal mathematical model which is accessible and usable by means of the computer. Computer simulation seems to satisfy such analytic criteria as broad framing of the policy problem and derivation of logically undisputable statements. However, it hardly satisfies such process criteria as participation of the relevant stakeholders and facilitation of communication between these stakeholders (Geurts and Vennix, 1989, pp. 49, 63–65). For the purpose of improving communication, however, the method of gaming/simulation appears suitable. A well-designed game is based on a simulated model derived from a real referent system. The structure of the referent system is translated into roles, rules of the game, and the scenario. The processes of the referent system are simulated by actual imitation by real stakeholders. Stakeholders act in simulated environments through role-playing and mutual communication. Throughout the game, the stakeholders interactively experience how the system works and how it could be changed by looking ‘forward into the future’. The induced real-life interaction enables gaming/simulation to overcome the difficulties regarding the validity and policy relevance of formal modeling.
An example of a tailor-made gaming/simulation is the DIAGNOST game. The DIAGNOST game was developed for administrators and other professionals who are involved in regional elderly care in a province in Netherlands. The aim of the game is to enable managers and professionals in health-care organizations to develop insights as well as to deal with the consequences of proposed governmental policy.

The preparation phase of DIAGNOST followed the steps described by Duke (1974): systems analysis, development of the game, and construction and testing the game. The systems analysis was undertaken in intensive dialogue with the client organization and prominent stakeholders in the field. The data were generated by means of brainstorming sessions with the client, interviews with other players in the field, and an extensive review of literature and documents on health care. The systems analysis resulted in a schematic with portrays the most important stakeholders, their objectives, responsibilities and options, and the relationships between the various actors in terms of exchange of information, money, and care. The building blocks of the game were specified in a concept report. After a discussion on this concept report with the client, the project team constructed a prototype. This prototype was tested twice with participants from the field of health care (Heyne et al., 1994).

The DIAGNOST game is played with about 20 participants and lasts 12 hours. It consists of two rounds of playing. In the first round, negotiations on budgets as well as debates on current policy issues take place within pre-defined policy arrangements and pre-defined procedures. After an evaluation, the players are allowed in the second round to determine by themselves who will participate in the negotiations and which other activities will be carried out. The game has been run three times with ‘real’ regional health care networks. During the evaluations, the participants were questioned about their experiences during the game. According to most of the participants, the game was an adequate representation of reality. They derived valuable options for actual policy and increased their insights into the societal developments. The game made it clear to them that players are dependent on each other and that a cooperative as well as an entrepreneurial attitude are essential. More than one half of the participants learned about the interests, strategies, and visions of the other actors (Joldersma et al., 1995). It can be concluded that DIAGNOST focused more on the social interaction between participants and was less focused on satisfying analytic criteria.

4.3. Consensus conference

The consensus conference has become known as a method for establishing active participation of citizens and experts in debates on controversial and complex societal problems. Since the 1980s, experiments based on the involvement of citizens and experts have been taking place in medical discussions. The consensus conference is strongly influenced by the criterion of democracy. It has even sometimes been described as an experiment in participatory democracy. It contributes to a democratic and informed debate before decisions are taken by political bodies (Mayer, 1997, p. 105). Three groups of participants are involved in the conference: a panel of citizens, a panel of experts, and an audience. The citizen panel consists of about fifteen volunteers with no special knowledge about the subject under discussion. The expert panel represents the broadest possible perspectives and interests in the issue. It is about the same size as the citizen panel and it is also selected by the citizen panel. The audience can consist of several hundred people who are invited or become interested through the media. The policy analyst plays a mediating role. His role is limited to the preparation and distribution of relevant information on the subject, the organization of the complete process, and the facilitation of the interaction between the participants (Mayer, 1997).

Mayer evaluated the consensus conference on human genetics research which was initiated by the Dutch Platform for Science and Ethics some years ago. The debate on human genetics included issues such as genetic screening of the population, genetic testing of clients, patients, or
unborn children for genetic disorders and diseases. As a preparation for the consensus conference, five workshops were held on particular issues related to human genetics. The workshops were different from the conference in that the number of participants was smaller and they primarily addressed experts and informed stakeholders. Some preparatory weekends were organized for the panel of citizens. During these weekends, lectures were given by various experts and the subject matter was discussed intensively. The result of the preparatory weekends was a list of questions. During the consensus conference, the questions were answered by the panel of experts.

Mayer expected the consensus conference to influence the values, attitudes, and knowledge of the panel of citizens. On the basis of a quasi-experimental pre-test/post-test design, it was found that participation in a consensus conference did have a marked effect on the citizen panel. They generally became less fearful, more supportive, and much better informed on human genetics research. The changes in personal values were surprisingly strong. Some issues related to abortion became issues of more concern. The citizen panel changed its views on abortion in general. There were sharp disagreements within the citizen panel with regard to the general view of human genetics research. After the conference, the panel became more aware of the benefits and developed a very high level of consensus. The conference had the clearest impact on participants’ knowledge, informedness, and insights into the subject. The citizen panel’s level of knowledge and insight increased sharply and almost equaled the scores of the experts. The audience also increased its knowledge (Mayer, 1997).

The consensus conference as a participatory method satisfies most of our analytic criteria, especially the orientation on decision-making and broad framing, and a broad overview of available scientific insights. It also satisfies such process criteria as facilitation of communication and integration of scientific data, and judgement of experts and stakeholders. The consensus conference seems to have a limited contribution on analytic criteria such as creation of different options and derivation of logically undisputable statements.

4.4. Electronic meeting system

An electronic meeting system (EMS) provides an information technology-based environment that supports group meetings. The tasks in which groups engage in those meetings may include “…communication, problem solving, issue discussion, negotiation, conflict resolution, systems analysis and design, and collaborative activities such as preparing, editing and sharing documents” (McGrath and Hollingshead, 1994, p. 36). Within EMS, a distinction can be made between the computer hardware, the computer software toolkit, and process facilitation. The computer hardware consists of a network system and a computer for each participant involved in the electronic dispute. The software toolkit consists of tools which enable electronic brainstorming and structuring of generated ideas. Process facilitation consists of preparing and managing the electronic meeting. An electronic meeting enables stakeholders to comment on one another’s ideas anonymously and parallel. The anonymity should encourage participants to speak freely. In addition to the electronic exchange of information, normal conversation can also take place during the electronic meeting.

Bongers et al. (1997) applied the EMS participatory method to support the technology scans for the Dutch Ministry of Economic Affairs. The technology scans were intended to identify and assess technological innovations and applications which may add to the solution of societal problems. In the preparatory phase for the electronic dispute, opinion leaders were interviewed about societal problems, project ideas, and selection criteria. A survey was carried out to gather information on these subjects. The results of these interviews and surveys, in combination with a literature scan, were used to structure the electronic meeting. Five electronic meetings were organized to bring together different policy-relevant actors and to start a discussion about the problems, ideas, and criteria. Each session lasted half a day.
In the first four sessions, project ideas were developed, discussed, and ranked. The last session resulted in the selection of the most important project ideas. On the basis of the results of the meetings, a report was written for the Ministry.

Bongers et al. (1997) evaluated the results of the electronic sessions with regard to criteria such as information, interaction, commitment, and learning. The data were obtained by means of questionnaires during and after the sessions, interviews after the sessions, and observations during the sessions. It was concluded that the electronic sessions were more focused on information gathering than on interaction. A broad range of ideas and comments were produced. Participants experienced EMS as very useful for information exchange. They acknowledged the advantages of EMS with regard to anonymity and parallel communication, but these effects were valued higher in theory than in practice. With regard to commitment, participants indicated that their sympathy for technology scans increased, but they did not consider EMS a consensus promoting method. With respect to learning, participants seemed to value EMS as an effective tool for discussing a problem from different disciplinary perspectives. They gained insight into the viewpoints of the group, but were not able to get insights into the viewpoints of the separate individuals.

It seems that EMS can contribute to analytic criteria such as a broad framing of the problem and generating different policy options. It also enables participation of relevant stakeholders. The contribution to process criteria such as facilitated communication and integration of different sources of data seems to be more difficult to attain. However, the effects of EMS will largely depend on the quality of the process facilitation, the structure of the electronic meeting, and the goals of the initiator of the sessions.

5. Field of application: Context characteristics

In the previous section, the application of three participatory policy analytic methods was illustrated. In general, the methods differ in their focus and main goals. Gaming/simulation focuses on a better understanding of the relation between the structure and dynamics of a policy issue by means of role-playing and the interaction of stakeholders in a simulated environment. A consensus conference focuses on reaching consensus on a policy issue by reinforcing the influence of informed citizens. Electronic meeting systems focus on gathering, exchanging, and structuring the information of stakeholders by means of computer assistance (cf. van den Dool, 1997, p. 50). The methods are consonant with each other with respect to the complexity of the issues at hand. They all focus on cognitively and socially complex issues. A consensus conference is also suitable for issues that are ethically controversial, whereas EMS, in particular, seems suitable for complex cognitive issues. However, all three methods make it possible to satisfy, in one way or the other, most of the analytic and process criteria we have distinguished for participatory methods.

The effects of application of participatory methods will, however, be very dependent on the particular circumstances in which the method is applied and the way these particular circumstances are taken into account.

Important variables that have to be part of a theory to predict the success of the application of participatory methods can be divided into context characteristics of the policy issue at hand and characteristics of the initiator of the PPA trajectory. The context characteristics of a policy issue are related to the cognitive complexity of the issue and the social complexity of the issue. The cognitive or analytic complexity depends on the number of problem variables and the certainty with regard to the relations between these variables. The issues with the highest cognitive complexity are the ambiguous ones where many variables have to be taken into account and the relations between those variables are unknown or uncertain. The social or organizing complexity refers to the degree of controversy related to the issue at hand. It is dependent on the number of stakeholders involved and the differences between their interests and values. The issues with the highest social complexity are the ethical or political controversies with conflicting interests or conflicting values. Another context characteristic which will influence
the effect of participatory policy analysis refers to the structure of the policy network and the nature of the institutionalized policy processes within the network. This history of the policy network will influence, for example, the acceptance of participatory trajectories. These context characteristics of the policy issue lead to challenges for PPA regarding diversity, controversy, uncertainty, legitimacy, dynamics, fragmentation, and interdependency.

Besides the characteristics of the policy issue, the choice and design of a PPA trajectory also depends on the needs and wishes of the initiator. These may concern the goals of the participatory trajectory, the process by which the goals should be attained, and the manner in which the policy network should be involved in the process. Additionally, the position of the initiator in the policy network and his participatory style have to be taken into account. Finally, limiting conditions regarding budget, time, and location will influence the shape of the participatory trajectory and its outcomes.

6. Conclusions and future research perspectives

Developments in methods of policy analysis as well as developments in policy practice show a shift from a unicentral, analytic, scientific approach to a more multicentral, interactive stakeholders approach. These shifts are accompanied by a growing interest in participative styles of policy making and participatory methods of policy analysis. The application of the participatory methods generally follows the paths of logic-in-use which shows the need for a methodology for participatory policy analysis. This article gives some ingredients for such a methodology.

The role of the policy analyst is to facilitate the multilogue by performing intellectual activities as well as process facilities. Therefore, he designs a PPA trajectory in which participatory methods are used. In this article, we explained three sophisticated methods, gaming/simulation, consensus conference, and electronic meeting system. The methods provide fora for debate as well as procedures and tools for guiding the debate. The way the PPA trajectory is shaped as well as the way in which the methods are applied is dependent on different context characteristics. We distinguished characteristics in relation to the complexity of the policy issue and the history of the policy network as well as characteristics of the initiator or principal of the PPA trajectory.

The outline of the methodology is also the basis for a framework on research on participatory policy analysis. Evaluation of participatory projects is usually limited to a reconstructive approach to the process and an assessment of the participants’ satisfaction on the basis of a subjective questionnaire. More in-depth studies on the effects of the application of participatory methods have been made by Vennix (1990) and Verburgh (1994) who studied the impact of participatory modeling on participants’ cognitive mental models.

The present state of knowledge requires a new type of research in order to gain greater insight into why the application of the participatory method was (in)effective. In order to further develop and test our methodology, comparative analysis is needed regarding different PPA trajectories. Insight is necessary into the kind of design decisions that are made, the reasons for these decisions, and the way the resulting trajectories contributed to policy in practice (cf. Geurts and Mayer, 1996; Mayer, 1997). The Tilburg research group on participatory policy analysis is building up a comparative databank on participatory trajectories by collecting case studies from interorganizational and intraorganizational settings.
Using a data structure which takes into account background variables (regarding policy problem, network, and initiator), trajectory variables (participants, time path; fora and tools) and outcome variables (e.g., satisfaction, effectiveness, and commitment), we hope to be able to answer some of the questions that are so pertinent to the further improvement of participatory methods: “What works, where, with what effect and why does it work?”

References


