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Testing the value of public participation in Germany: theory, operationalization and a case study on the evaluation of participation

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0. Abstract

This paper examines the implications posed by the European Climate Protection Plan and the German Energy Transition. Both involve social conflicts regarding technical feasibility, norms, and values. Technological expertise alone is insufficient to resolve these normative questions and conflicts. In addition to technological expertise, social and communicative competence is therefore needed to deal with the social and cultural challenges of an energy transition. One method to cope with conflicts that arise as a result of the energy transition refers to the use of citizen participation. Many analysts of participatory processes suggest that participation, if done properly, enhances acceptability and legitimacy of a transition process, contributes to improved efficiency of decisions, and promotes factual knowledge. This paper analyses and discusses these anticipated positive effects within a theoretical framework and a corresponding empirical case study.

1. Introduction

In 2014 the European Union agreed on common goals for the reduction of carbon dioxide emissions. This plan limits the emissions in 2030 to 60% of the 1990 emission level. In addition, a minimum of 27% renewable energy production is prescribed for each national energy mix and a 27% increase in energy efficiency, all to be achieved by 2030.

This pan-European energy systems transition process will be executed on the national level. For Germany this agreement is in line with the national Energy Transition Act of 2011, which contains an additional goal: to phase out nuclear power by the year 2022 (see Fischer 2011: 16).

Transforming the energy system is associated with significant changes in society, for example on individual households: While experts regard the transformation process as a necessary change to protect the climate and to ensure the energy supply in the future, consumers might consider rising energy costs, new regulation requirements (for example for better insulation of their homes), or the comprehensive adoption of smart meters as burdens to their lifestyles, while others welcome these innovations as signals of a more sustainable future (see Thomas 2008 w. p.).

In this respect, the proposed changes involve social conflicts about technical as well as economic feasibility, and touch upon deep-rooted norms and values. Technological expertise alone is not sufficient to resolve normative questions of what it means to pursue a good life. In addition to ethical arguments, it is essential to take the demands, concerns, and wants of the affected people into account. A concept is needed to cope with both technical feasibility and social conflicts that can facilitate the implementation of planned changes. Many social scientists and political observers recommend more and more adequate citizen participation as an appropriate tool to cope with transformation-related conflicts. Many analysts of participatory processes suggest that participation, if done properly, enhances acceptability and legitimacy, contributes to improved efficiency of decisions, promotes innovative solutions, and improves the quality of decisions (see Beierle 1998 : 37, Braun / Kropp, 2010: 775; Cowie / Borrett 2005: 475; Evans / Kotchetkova 2009: 628; Halvorsen 2003: 536; Hennen et al 2004: 5; Rowe et al, 2008: 419f; Stoll-Kleemann/Welp 2008:162 f.).

Even though citizen participation seems promising as a means to facilitate a smooth energy transition, several limitations and problems come along with public participation processes that are discussed in the literature. This paper reviews this discussion and addresses the main arguments on both sides of the coin. Furthermore, based on a theoretical concept of participation, it reports on an empirical case study that provides an answer to the question: How can one measure and evaluate the effects of a participation process in order to determine its quality? Evaluating the quality of participation is crucial to determining whether or not participation can adequately address societal problems. On a conceptual level the paper studies, compares, and analyzes different definitions of public participation. Specific criteria can be deduced from these analyses that are widely used within the literature for assessing the quality of participatory processes. In a second step, these criteria are operationalized and converted into sub-criteria and indicators. They serve as a basic instrument for measuring quality of process and outcome.

In the second half of the paper, these criteria and indicators are applied to a case study called “BEKO” (German abbreviation for: Citizens’ and public participation in an integrated energy

and climate program). This project had been initiated by the Ministry of the Environment of Baden-Württemberg. The State government had decided to use citizen participation as a major element for articulating basic climate protection policies that were introduced to the State Parliament in mid-2015. The public participation project included stake-holders, NGOs, environmental groups, and a variety of randomly chosen as well as voluntarily recruited citizens. Their task was to assess and evaluate 110 action items to protect the climate as suggested by an expert consultancy company working for the State. Throughout the participation process, several surveys were conducted to measure the subjective impressions of all participants with respect to the above-mentioned quality criteria. This empirical investigation of a participation process which included directly and indirectly affected societal groups with multiple types of evaluation instruments (on-/ offline, qualitative and quantitative social science) provides a unique database for investigating the appropriateness of the underlying theoretical concept for designing a valid and reliable evaluation.

Our paper is structured in 7 chapters. In the first chapter we introduce the normative background of this paper as well as three main characteristics that classify public participation. In the second chapter, these three characteristics are converted into sub-criteria and indicators to evaluate the quality of public participation processes. The fourth chapter introduces the case-study BEKO before theoretically-derived criteria and empirically-revealed preferences are integrated in the fifth chapter. The last section discusses and summarizes research results.

2. Normative background

In addition to theoretical publications inspired by normative concepts of democracy and deliberative decision-making, many practical handbooks and guidelines offer suggestions for how to set up good citizen involvement processes (see Rowe/Frewer 2005: 252; Wesselink et al 2011: 2688). Notwithstanding this huge and still-growing body of literature, there is neither a commonly used definition of the term “public participation” nor a concept to measure its quality. The term “public participation” is often used interchangeably with other terms like political participation, citizen participation, citizen involvement or engagement, which does not reflect the difference between multiple types of participation e.g., between casting a vote or taking part in a citizen panel (see Catt/Murphy 2003: 413).

For our study we reviewed more than 30 definitions of participatory processes in order to find discriminating criteria for measuring the quality of process as well as output/outcome.

A widely used definition of political participation refers to all activities that are voluntarily taken by citizens to influence political decisions at any stage of the political process (see e.g., Kaase 2002: 350). The criteria embedded in this definition, such as the reference to voluntariness, rational action, or exertion of influence on political decisions, can be found in many other publications on public participation (What are the criteria???) (e.g., O’Fairchealligh 2009:20, Rowe/Frewer 2005: 253). However, there are more criteria that were identified during our review.

1. Many authors emphasize the methodical, organized character of public participation processes (see Arnstein 1997: 216; Evans/Kotchetkova 2009: 628; Gramper/Turcanu 2009: 524; Reed 2008: 2418; Rowe/Frewer 2000: 6; Webler/Tuler 2002: 179). For example Renn et al 1995 define public participation as “formats for exchange that are organized for the purpose of facilitating communication between government, citizens, stakeholders and interest groups, and businesses regarding a specific decision or problem.” (Renn et al 1995: 2). The organized and methodical character of different participation methods refers to many organizational and logistical questions, e.g., how many people can be included in the process.

2. Public participation is often associated with an increased or intensified exchange of information. Even though definitions differ in their emphasis on a bottom-up or a top-down flow of information, they do agree that participation creates a mutual communication flow between the public and political administrators. These definitions thus emphasize the discourse and highlight the potential for learning in public participation processes (vgl. Chess/Purcell 1999: 2685; Cowie/Borrett 2005: 473; Glass 1979:181; Renn et al 1995: 2; Rowe/Frewer 2004; Steyeart et al 2006:6;Webler/Tuler 2002: 179).

3. The third characteristic of public participation refers to its impacts, in particular the influence on political decisions. Compared to other political activities, public participation addresses the crucial questions of what is at stake and what kind of impact the results of the process may exert on political decision-making. While for some authors (e.g., Arnstein) self-determination is the end point of participation, most authors claim that the results of the participatory processes need to be adopted or at least seriously considered by political representatives. The fate of the recommendations of these participatory processes needs to be determined and specified even before the process unfolds. Only if participants know how their judgments are fed into the political process can one expect serious and dedicated individuals to strive for the best possible recommendations.

In an attempt to synthesize these different concepts and characteristics of public participation, we define public participation as a set of processes that include representatives of different social groups organized by a third party with the purpose of initiating a discourse and cooperative counselling process aimed at informing collectively-binding decisions.

In the next section, this definition is further operationalized into indicators for measuring the quality of a participation process. For every characteristic a number of sub-criteria is delineated that can be used as empirical indicators for evaluating participatory processes.

The aim of this concept is not to reflect different criteria that are outlined in many different evaluation concepts. The aim of this concept is to come up with a manageable list of criteria which many authors could conceivably agree with.

3. Conversion of our public participation concept into indicators and sub-criteria

3. 1 Criterion: Inclusiveness

The first criterion refers to the number of stakeholder groups that are represented within a participation process. This criterion refers to the democratic principle of equality. In a pluralistic view, an equal representation of all affected groups and their free competition within a given set of communicative rules comprises an important cornerstone. If the principle of equality within a participation process is disregarded, groups that are affected but ignored will likely reject the participation process and its results. Political decision-makers working on decisions that entangle different stakeholder groups with diametric positions are faced with this problem. Hence every position should have an equal occasion to be heard during the political decision making process (see Laird 1993: 346).

a) Platform for communication and exchange

The first sub-criterion (a) for inclusiveness can be derived from the argument of equal representation: Participation can provide a platform for negotiation of positions that are in conflict with each other. Such an external platform can produce a functional benefit for the political system (see Goodin/Dryzek 2006: 232). It is therefore important to ensure that all affected groups are represented within the participative process.

b) Equal contribution

It is also important to keep the balance between different arguments of different groups and not to focus on a few. If a facilitator is involved in the process, s/he should give each group enough time to pose their arguments (see Renn/Webler 1998: 5). An equal opportunity to contribute to the process or fairness within participation is an important sub-criterion (b).

3.2. Criterion: Information exchange and learning

c) Exchange of knowledge

Sub-criterion c) assumes that knowledge is connected with the stakes of each participant. Laypersons often use arguments containing values, norms and interests, while experts refer to factual knowledge instead. The difference between these kinds of knowledge is not determined by the degree of (deductive) rationality, but depends on the method of knowledge-generation. Rationality, in this sense, does not mean an intersubjective and scientific reasoning but the ability to have good reasons for supporting one's position. This reasoning can contain factual, normative, or other arguments. Therefore sub-criterion (c) mandates that empirical participation has to activate method-driven knowledge of experts as well as life-centered experience of laymen (see Beierle 1998: 1; Braun/ Kropp, 2010: 775; Hennen et al 2004: 6; Rowe / Frewer 2000: 7).

d) Common base of information

If the arguments of affected groups contributing to the decision process are understood as being meaningful, then it is necessary that all groups have access to relevant knowledge that refers to the decision (see Laird 1993: 347). This demand of knowledge sharing is reflected by other authors and often used as one of the main objections against more citizen participation (Reference needed). Many claim that citizens have inadequate expertise for complex problems and decisions. They cannot adequately contribute to a problem in a certain context. This argument can be further substantiated as most citizens draw their information from the mass media. Mass media tend to simplify and scandalize certain themes (see Hennen et al 2004: 54). This discussion leads us to the demand of a common pool of information on the topic that is available to every participant. A common pool of shared information is essential to any kind of discussion.

e) Transparency

Next to the exchange of information (values and facts), the processes also provide enhanced learning opportunities (see Beierle 1998:3, 6; Chess/ Purcell 1999: 2687; Halvorsen 2003: 536;

Hennen 2004: 57; Renn/ Webler 1998: 8; Rowe et al, 2008: 419f). Enhanced learning refers to the experience of being exposed to different arguments during participation. This exchange is not just gathering new information but learning more about each other's position. For example public participation can lead to an exchange with officials that provides more insights into the administrative process of decision-making. This may generate a deeper understanding of the officials' positions and connected limitations and lead to more transparency within the process (Evans/ Kotchetkova 2009:628). This is not only true for officials but also for other participating parties, regardless of whether they are experts or laypersons. According to this point, one criterion for public participation processes is (e) whether the process offers the opportunity to gain insight into the position and reasoning of other participants.

f) Common understanding of the process

As a common understanding of the information given is central but not automatically taken for granted, one needs to ascertain that all information concerning the mandate and the different steps of the process are comprehensible and well understood by all participants through the process (f) (see Rowe/Frewer 2000: 16).

3.3. Criterion: Influence on political decisions

g) Effectiveness and Efficiency

Effectiveness implies that all groups within a participative process should have some influence over the outcome, if they had no influence they could not represent the interest of their members in a meaningful way. Hence effectiveness of participation processes is another sub-criterion (g) (see Rowe/Frewer 2004: 540).

At the same time, it would be problematic within a representative democracy if one or several groups had absolute power over a decision. The principle of equality would be harmed if this were the case, as in many participative processes only those affected by a decision are asked to participate. Power to influence needs to be balanced among the different parties in a participatory process. Jürgen Habermas emphasizes even a fully egalitarian setting that provides equal influence to each party regardless of their authority or power outside of the deliberation process (see Habermas 1992: 138-141).

Efficiency adds another important step to this part of the influence. Beyond the focus on whether or not participation has an effect at all (effectiveness), efficiency focuses on whether this effect was achieved using adequate resources. Thus these two terms are often evaluated

separately although they are closely connected at the conceptual level (see Rowe/Frewer 2004: 540).

h) Shared understanding of results impact

Decisions that impact society in a remote future may not be controversial at the time when the deliberations were started, but may cause problems, conflicts, and even protests when impacts become visible during the implementation phase (see Godschalk et al 2003: 733f). A limitation of public participation may result in the perception that these processes are purely symbolic as the decision is pre-determined or the participants' mandate is too narrow (see Halvorsen 2003: 540). This can be the case if the involved officials and policy-makers fear losing their own authority, either partially or completely through the initiation of an involvement method (see Stoll-Kleemann/Welp 2008: 163). But even if the deciding authorities as well as the planners of a large-scale project take the participation process seriously, they may understand the different positions in society and their involvement in the decision rather as an obstacle to their work than as an opportunity to improve their decisions (see Godschalk et al 2003: 733f). In order to enhance transparency within participation processes and to cope with these problems, it is important on the one hand to communicate clearly what kind of mandate participants within a process have, and on the other hand to specify what impact the advice of citizens during the decision making process will have (h).

A public participation process that considers all sub-criteria can be regarded as high quality, which may thereby be regarded as successful by the different groups taking part in it.

Table 1: Overview main characteristics connected to sub criteria

Main Characteristic	Sub Criteria
1. Inclusiveness	<i>a) Platform for communication and negotiation</i>
	<i>b) Equal contribution</i>
2. Information exchange and learning	<i>c) Exchange of knowledge</i>
	<i>d) Common base of information</i>
	<i>e) Transparency</i>
	<i>f) Common understanding of the process</i>

3. Influence on political decisions	<i>g) Effectiveness / Efficiency</i>
	<i>h) Shared understanding of impact of results</i>

Source: own representation

4. Empirical Case Study

4.1. Overview of the case-study BEKO

BEKO (Bürger- und Öffentlichkeitsbeteiligung am integrierten Energie- und Klimaschutzkonzept; Citizens' and Public Participation on an Integrated Energy and Climate Program) is a participation project that started December 16, 2012 and lasted until May 2, 2013. It was initiated by the Ministry of the Environment of Baden-Württemberg¹. The State intended to collect all actions on climate change and the phase-out of nuclear power in a master plan, which would then be open for parliamentary and public debate. All ministries whose field of responsibility included the future energy supply or climate change were asked to contribute to this master plan. In total, the master plan included 110 concrete action items to advance climate change policies. These action items included actions affecting public affairs, industry, public transportation, and private homes, such as granting subsidies for installing photovoltaic cells on private roofs. The Ministry of the Environment, responsible for completing the master-plan, decided to initiate a public participation process aimed at getting public comments for all the 110 action items. The descriptions of the 110 action items were listed in an Integrated Energy and Climate Concept (Integriertes Energie- und Klimakonzept, (IEKK)). This document was the basis for discussions and participatory negotiations with stakeholders such as representatives of industry and commerce, NGOs and environmental groups, as well as randomly selected and voluntarily recruited citizens of Baden-Württemberg.

In addition to direct, face-to-face meetings, the State organized an online platform for comments and discussions. All 110 steps were published on a web page and any interested person living in Baden-Württemberg was invited to review the measures and comment on them. The discussion was structured in accordance with main topics such as mobility, electric power generation and distribution, energy conservation in private homes, energy needs of trade and commerce, industrial use of energy, land use in agriculture and forestry, and energy needs and demands of public institutions. Beyond the task of adding comments, the users evaluated every proposed measure on a scale from 1 to 9 and were given the opportunity to add further questions or comments.

Citizens living in the state were also able to fill out an application to participate at one of the citizens' discussion tables or town halls that were organized in the aftermath of the online phase.

¹ Additional information on the project can be found on <http://www.beko.baden-wuerttemberg.de/>, due to the projects' purpose, all information is available in German only.

Over 400 citizens out of 1700 active contributors filled out this form, and 50 out of these 400 were chosen by random selection.

For the other face-to-face deliberation groups, 167 citizens were recruited by using random telephone numbers. Meanwhile, 121 representatives of organized stakeholder groups were invited from lists provided by the Ministry of the Environment. These lists contained all stakeholder groups that are normally invited to public hearings.

With almost 290 participants in total, the deliberation process required a sophisticated structure and schedule. Stakeholder representatives were distributed in seven thematic groups (called tables) each discussing the proposed action items within the main topic of each table. The citizens were distributed among five different tables, discussing the topics they are supposed to have the most expertise in, e.g., energy conservation in private homes, mobility, and electric power generation and distribution.

During two half-day meetings, each table discussed each of the action items that belonged to the topic at hand. The task was to evaluate them and pose questions to a delegation of ministerial officers for further information or clarification. In the end, the citizens produced 272 and the stakeholders 334 recommendations. For streamlining this abundance of information, each of the five tables sharing the same topic among citizens and stakeholders elected two emissaries for a joint discussion. This discussion's focus was to reconcile conflicts between the comments by citizens and those by stakeholders. These meetings produced another 145 joint recommendations.

In a final meeting, the emissaries of all topics (including the two topics only stakeholders debated about) met in a face-to-face meeting in order to give strategic advice to the State government beyond the concrete steps they had commented on before. These strategic recommendations regarded desired actions for the time after 2020, since all the proposed 110 measures were directed towards an implementation phase between 2013 and 2020.

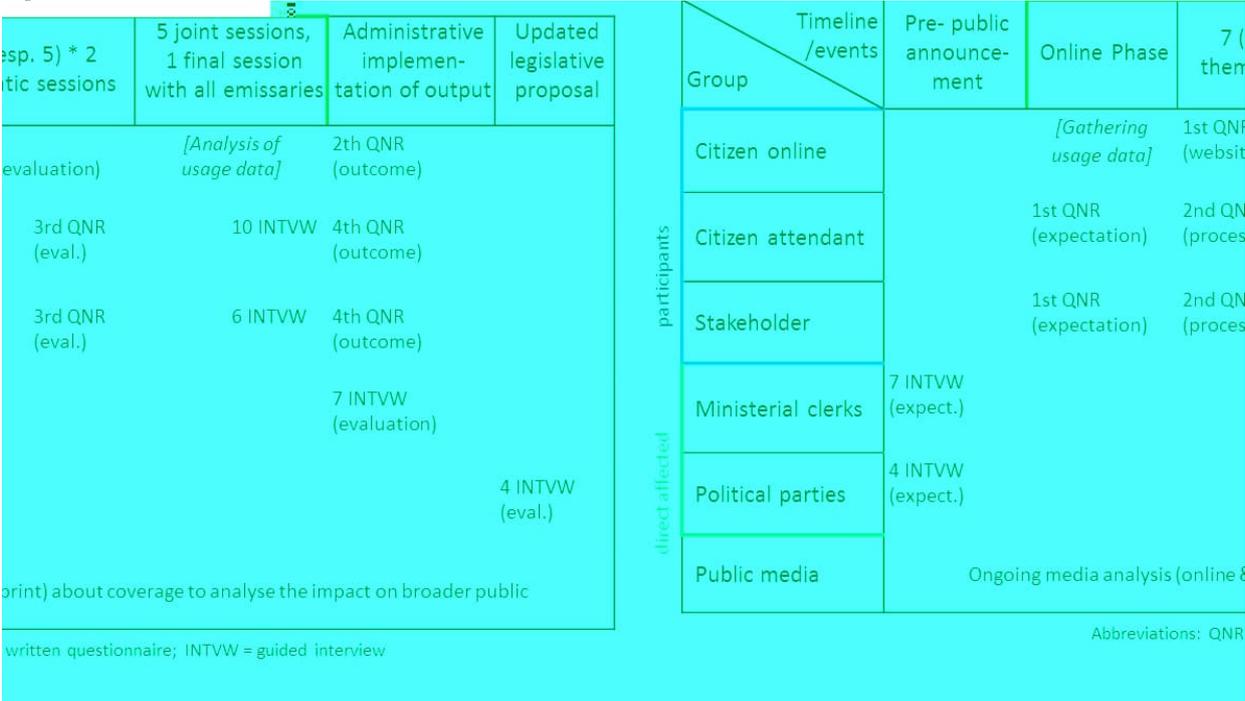
The scientific personnel of the non-profit company Dialogik² planned and organized the entire participation process and summarized the results in a citizen and stakeholder report which was later given to the State government. After the ministry reviewed this document, they issued amendments and changes to the original IEKK taking into account the numerous comments and suggestions from the participatory bodies. They also produced an explanation if they had rejected suggestions or recommendations filed by the citizens or stakeholders³.

² Dialogik is a non-profit institute for communication and cooperation research located in Stuttgart.

³ These papers are all available (in German only) on <http://www.beko.baden-wuerttemberg.de/ergebnisse>.

The participation exercise was accompanied by a social scientific evaluation study conducted by the University of Stuttgart. The evaluation team conducted a survey among the users of the online participation and multiple surveys among the participants of all the discussion tables. The surveys were conducted shortly before the participation process, after the first meeting, directly after the last meeting, and several months after the process had been terminated. Figure 1 provides a summarized view of all parts of the evaluation and timeline for the project.

Figure 1



This paper reports selected parts of the survey results in order to provide empirical evidence about the subjective impressions of the participants with respect to the quality criteria explained in the previous chapter. It is both an illustration as well as a test for the empirical relevance of the theoretical approach developed above.

4.2. Application of criteria

The criteria derived from the theoretical concepts presented in 3.1 to 3.3 were applied to the case study in a slightly modified sequence that seems more fitting to the empirical analysis, but retaining the letters (a) to (h) as described above.

4.2.1. Information

The criterion (c) “exchange of information” is important for understanding the possible benefits of participation: bringing new insights, ideas, and solutions to the participants. By including new kinds of information, participation can activate more sources of systematic and tacit

knowledge than other methods, such as expert hearings. Participation can integrate the systematic knowledge of experts with the life-centered tacit experience of laypersons (Renn 2010). Citizens have their own perspective on a given problem and during the process of deliberation, they may be able to enlighten the experts with details about which aspects matter to them and why. Often this input is not part of the original professional assessment.

Within the BEKO the stakeholders were regarded as experts for their own subjects. Their knowledge exceeded the insights of laypersons, thus focusing on the professional exchange of expertise with respect to criterion (c). Although each single stakeholder may be seen as biased by his or her interest, the composition of each table including industry, NGOs, and civil society provided an adequate balance of viewpoints.

The citizens brought in their private view towards the proposed climate protection measures. They had their own intuition and experience of what they felt would likely work or fail. Since the citizen point-of-view is most relevant to topics concerning their own lives, they primarily discussed mobility, energy conservation in private homes, and electric power generation. They could also draw conclusions based on their own experience with energy in their homes and workplaces. The combination of different types of knowledge were quite visible in the large number of recommendations that were produced during the deliberation: While over 600 recommendations were created by citizens and stakeholders in separate meetings, 145 additional joint recommendations were generated after stakeholder representatives and citizens met together and exchanged their positions. In addition to the randomly selected citizens and the invited stakeholders, BEKO offered a website to citizens for self-recruitment. The website was a success – during its operation more than 1,700 people participated actively by voting or commenting on the proposed measures. More than 6,700 comments were received on the website, even though it was only online for 46 days and over the Christmas/New Year holidays. This may have accounted for a decrease in usage – better recruitment could have been achieved if the online phase were implemented during the year.

Criterion (c) says that a mutual exchange of knowledge should not only provide a learning experience and exposure to other perspectives, but also the ability to understand the reasoning of each participant for his or her position.

Within the evaluation process we tested whether such a learning effect had taken place by using an open question: “Did you learn any new perspectives on the subject during the deliberation? If yes, please name it.” Over 40% of the participants gave an answer to this question articulating a new idea or modified perspective they did learn during the deliberation. A learning among

online participants could only be measured indirectly during the post survey in which 62.7% answered that they used the online participation and affirming with + 2.92 points (scale from -4 to +4) the item that they learned new perspectives about the topic. Whether this was directly induced by the information given online or by face-to-face discussions with friends and family is indeterminable without interviewing the online participants.

4.2.2. Equality and Fairness

The criterion (b) of providing equal opportunities for arguments and deliberations refers to the perceived fairness of the process. As every participant has a unique viewpoint and valuable input to contribute, the deliberative process needs to assure that nobody is excluded and each participant has an equal opportunity to be heard and considered. This criterion is of special relevance if laypersons and experts meet at one table and discuss the issues from different professional backgrounds. Since the stakeholders tend to speak on behalf of their organizations, citizens may be more hesitant – especially in front of more experienced speakers – to speak up and express their opinions. To test this notion, we included a section about perceived unfairness or imbalanced power distribution experienced during the meetings. The questions addressed the perceived fairness among the participants during the debates, the atmosphere of the meeting, the perceived impact of the moderation and the issue of whether the quality of arguments had more weight than the social position of the speaker. This item achieved in the post questionnaire among citizen an average of +3.14 (on a scale from -4 to +4) and among the stakeholder participants +2.38. Besides this high approval found in the closed written survey, the interviews among both participant groups showed a lack of expected opposing positions. And several interviewees mentioned a surprisingly fair and considerate discursive atmosphere. The lower level of fairness found among stakeholders can be explained through the conducted interviews: Here several people mentioned that the hearing of stakeholder groups on such law proposals as IEKK was mandatory for years and that the new offer of citizen participation raised concerns among established stakeholders. Concerns about what to expect from the outcome of such a participation as well as a doubt whether their own influence would be diminished.

4.2.3. Communication and negotiation

Criterion (a) addresses a basic demand for participation: It should provide a platform for reconciling conflicting arguments and positions. Such conflicting positions can derive from an

individual attachment to specific reference groups (for example, industry, environmental protection groups) as well as from individuals with different personal viewpoints.

The participants at the BEKO deliberations were encouraged to discuss different positions, explore the reasons behind these positions, and find common interests or values that could serve as bridges between the positions. The facilitators were trained to address and handle major conflicts during the meetings, particularly in those meetings where citizens and stakeholders held common deliberations. However, the platform idea emerged as powerful instrument to reconcile the conflicts between different parties, and in particular between stakeholders and citizens. In as little as two joint meetings, the representatives of both groups were able to produce meaningful and substantive, jointly approved recommendations in spite of initial animosities and prejudices between the participants.

One example may illustrate this potential of a common platform: Initially the citizens welcomed the transition from nuclear to renewable energy but they were concerned about the costs of the transition for each household. The stakeholders were less enthusiastic about the transition and were worried about security of supply. The recommendations of the joint meeting included both the concern for security of supply but also the costs for industry and private customers. The joint statement welcomed the transition but asked the state government to be more aware of the side effects and to provide adequate backup capability and a social package for a fair and affordable pricing strategy.

Such indirect proof for illustrating the success of the platform's functionality is far from providing sufficient evidence for making any generalization.

However, direct measurement was illuminating in this respect. Qualitative interviews with participants provided the opportunity to directly ask about the negotiation process at the common platforms. In the case of BEKO, these qualitative interviews brought an interesting effect to light: Before the meeting of stakeholders and citizens, most citizens were concerned that the stakeholders would only defend industrial interests. After the joint meeting, none of the participating citizens shared that concern any more – about 60% stated that they were surprised at how interested stakeholders were to hear the citizen's positions. So the process was instrumental in reducing prejudices and creating an open platform for mutual exchange of arguments and positions.

4.2.4. Output-to-outcome process

The criteria (h) and (g) linking output-to-outcome⁴ and gaining or losing trust throughout the process are both connected. While the output of participation simply equals the content of the final recommendations collected from the participants, the outcome represents the effects of the participation in the political arena. The question is whether the output has any impact on the final decision made by the organizing government. Or is the whole output simply ignored or discarded due to its (judicially) informal character?

The handling (and its reasoning) of the recommendations generated during the participation process is central when it comes to trust. Since increasing trust in governments is often an explicit or implicit goal of participation (if it is initiated by the government as was the case with BEKO), these two criteria must be considered when conducting an evaluation.

The task of transforming the output into outcome took – due to the multitude of topics and involved ministries and the huge amount of recommendations (more than 700) – seven months in the case of BEKO. After seven months a response paper was published, explaining which suggestions were adopted and which were not and why. This document, in its long version (400+ pages), was read by 34% of the respondents; the short version (20 pages) which focused on major changes made due to the participation input was read by 76.2%. This step was necessary to validate that the respondents were informed about the outcome of the participation. The item checking whether the respondents' input was used reached an average approval of 6.15 (scale 1 to 9, 9 being equivalent to full approval). The item that checked whether the participants could recognize their impact in the updated version of the master plan even reached an average of 6.75 (same scale).

For testing sub-criterion (h) we focused on the acceptance and transparency of the conversion process from output into outcomes and the development of trust compared to the beginning of the participation process. A questionnaire was delivered to every participant involved (citizens and stakeholders) along with a series of qualitative interviews with a subset of participants. Both the quantitative as well as qualitative data attested BEKO a high level of transparency and effectiveness when it came to the conversion process from output to outcome. We could also document a clear tendency towards increased trust in the political elite. Along the good grades for the output-to-outcome process for the BEKO even a slight increase in trust towards the political elites (5.22 to 5.44) and the administration (here the increase was reported qualitatively throughout the interview series) could be found.

⁴ This conversion is when the results of a finished participation (“output”) are taken by the initiator and then integrated into a (often political) decision (“outcome”). Within this process the results may be altered or (partly) adopted. The satisfaction of the participants is usually connected to a narrow conversion of output to outcome.

Related to (h) is the sub criterion (g) of overall effectiveness in measuring the distance between desired and accomplished effect of the entire process on political decisions. It also includes efficiency. Notwithstanding that financial efficiency plays an important role for any initiator of participation, it is also of interest to the public when tax revenues are spent for participation purposes. Beyond financial efficiency we also asked for the balance between effort of the participants and the results, including the probability that participants would be willing to serve on such committees again when the need arises.

We measured effectiveness and efficiency of the process by a series of open and closed questions after every meeting. The closed questions offered items to agree or disagree with on a scale from 1 to 9. These items concentrated on perceived quality of the output such as the degree of innovation, the completeness of all important topics, efficient use of the time during the meeting, etc. The open-ended question gave the participants the option to mention other aspects that might impact effectiveness or efficiency.

The participant's ratings showed positive results: The responses to the item: "As participant the effort invested is in good relation to the outcomes of the participation" ranged on a scale from 1 ("not at all") to 9 ("full approval"). The average participant score was very high, i.e., 7.12 (n = 219). The open-ended question showed a limitation to these high scores – several participants stressed that the overall efficiency cannot be finally assessed until the master plan is approved by the parliament or until visible impacts can be observed in protecting the climate.

The effectiveness was tested throughout with a set of items to check different sub-dimensions, such as: were the results innovative; did they add to the previous set of problem-solving strategies and are they relevant to the problem; even whether the results exceeded the participant's anticipation. This overall effectiveness scale including 5 sub-dimensions reached 6.70 on the scale presented above (n=218) among citizen and stakeholder respondents.

2.4.5. Information Flow and Transparency

Prior to commencing any deliberative process, all participants have to be given the chance to get on the same level of information in order to be able to engage in a sensible and productive debate. It is clear that the comprehensibility of given information among participants (sub-criterion d) is an inevitable prerequisite for such a cognitive process. Also the exchange of that knowledge within the debate is a self-evident condition (c).

Transparency of mandate, as depicted in sub criterion (e), deserves special attention among the criterion of transparency. To specify, clarify, and communicate what is to be decided, debated, or evaluated by the public is essential for any participant (layperson or expert) to have a good

understanding of the participation process. Such common knowledge is the basis for raising realistic expectations towards the process and its output and for specifying the appropriate frame under which the individual will experience the process. Participant appraisal depends on the perceived mandate and the stated purpose of the participation.

There are the two main evaluation dimensions for assessing the quality of participation, *subjective satisfaction* with the process by the participants and *objective performance* estimated on the basis of intersubjective indicators. Assessing the quality of participation on the basis of intersubjective indicators requires judgments on process and outcome by independent external experts or observers. This is always tricky as there are no clear benchmarks of how success or quality can be objectively ascertained.

The evaluation of BEKO hence focused on the subjective dimension, on the participants' perspective respectively the public towards the participation process. The measurement of transparency is key to this dimension. Hence in the evaluation of BEKO, transparency was measured in several different sub-categories:

The participants' expectations of the participation were measured with eleven items to investigate whether expectations exceeded the given mandate and whether unrealistic expectations had caused disappointment in the end (criterion (e)). These expectations ranked high, with an average scale of 7.24 on a 1 to 9 scale. The expectations among citizens were slightly (0.13) higher than the expectations of the stakeholders. But as the post survey demonstrated a slight increase in trust of all participants (see 4.2.4) – even the unmet expectations didn't lead to distrust among BEKO participants.

Another six items and an open-ended question referred to the comprehensiveness of the information and the mandate. This relates to criterion (d). Within the BEKO evaluation the combined scale for the closed questionnaire reached an average of 7.53 (scales' maximum 9.00). Also, 79% of the respondents (n=237) declared themselves as sufficiently informed in the open question, the rest overwhelmingly mentioned the positive effect of having the chance to interview the ministerial clerks that accompanied the first meeting.

Seven additional items measured the overall acceptance with the procedure as understood by the participants (linked to criterion (f)). The combined average scale for acceptance of 7.57 on a scale of 1 to 9 was excellent within the participants of BEKO.

5. Integrating theoretically derived criteria and empirically revealed preferences

The previous section illustrated the complexity of assessing the quality of participation processes on a multi-dimensional scale of criteria and sub-criteria. It is crucial to get a detailed insight into the subjective evaluations of all the participants, the moderators, organizers, and final users of the participation output.

Performing such an evaluation faces numerous challenges. One major challenge is that participation processes often develop in other directions than originally planned. This calls for flexibility and adaptive management skills regarding the original evaluation plan. A second challenge is the necessity to adjust to the preferences of the participants in terms of scheduling surveys or inviting participants for qualitative interviews. Finally, as important triangulation of different and independent methods may be in theory, there is no established method of how to aggregate variations in results from different research methods (for example quantitative data versus qualitative impressions or versus direct observation data). In the end, evaluation is as much an art as it is a product of exact empirical methodology.

There is no gold standard in performing valid and reliable evaluations but our research suggests that a flexible, adaptive approach that integrates a solid theoretical concept, the application of rigorous instruments of empirical investigations, and a flexible design process that includes the incorporation of spontaneously created subjective preferences of the participants appear to be the best way to proceed.

This flexible approach can be illustrated by our research. We started with the theoretical analysis developed in the earlier sections of this paper. However, enriched by the empirical data from the participants, we converted these criteria and sub-criteria into 8 new compound dimensions that seem to match the material better than what we had originally envisioned. These new criteria reflect the original criteria but they are not identical. As a matter of fact they come close to the criteria suggested by Kersting (cf. Kersting, 2008: 284 f.). The 8 dimensions of measurement will be portrayed in the following paragraphs.

Table 2: Measurement dimensions used in BEKO

Central dimensions in measuring participation	Connected criteria
Expectancy	(Meta for preliminary survey)
Transparency	(c) (d) as prerequisites to (e)
Acceptance	(f)
Fairness	(b)
Effectiveness	(g)

Efficiency	(g)
Own Impact	(g) (h)
Satisfaction	(Meta for post survey)

Source: own representation

Expectancy captures the wishes and hopes of participants before the start of a participation process. These expectations are important because participants will use them as benchmarks for evaluating the results as well as the quality of the process. Expectancy includes items for assessing the process as well as the envisioned outputs.

Transparency relates to the availability of all relevant information. Having full knowledge about the goals, the reasons for (and identity of) the initiator(s) of any participation process is central for participants as a prerequisite to understand their own role in the process, to judge the seriousness of the initiators, and to assign trustworthiness to the initiators or other parties in the process.

The importance of transparency can be illustrated by the following example: The mandate given to the participants is often an issue of controversy and misconceptions between initiators and participants: While the initiator(s) may see participation as an opportunity for citizens to voice their views and to offer a platform to check out the public position towards the respective project, the participating citizens may understand it as an offer to co-determine what options will be further pursued and how to prioritize them. In such a situation it is obvious that participation can cause even more outrage than in a situation where political decisions are only communicated to the public without giving citizens the right to negotiate. In order to avoid misunderstanding about the mandate, it is crucial from a theoretical perspective to communicate the mandate in advance and make sure that all parties understand the scope and limitations of the participation exercise. During evaluation one can check whether the expectations of the mandate are and remain identical and well-understood among the various parties.

Acceptance includes the judgment about the desired scope and limitations of the participation process. If the mandate is perceived as too narrow or even as merely orchestrated to convey an image of democratic legitimization, stakeholders and invited citizens may refuse to participate from the outset or engage in protest actions during the participation process or after experiencing the outcome or lack thereof. Knowledge about the level of perceived acceptance is thus a crucial aspect of approval with respect to the process as well as to the handling of the output.

Transparency and acceptance were measured within BEKO in an additional written questionnaire, immediately after the first meeting. In this meeting the moderation was advised to inform⁵ every participant about the whole process and the formal mandate of the BEKO. We checked afterwards whether this information was understood by the participants and secondly, approved or disapproved. The good grades that participants gave BEKO in the closed part of the written questionnaire are displayed in 2.4.5. The open-ended questions underline these findings as 40% again expressed in their own words the high value of open communication about mandate and joint understanding of proceeding.

The remaining 5 concepts were measured after the participation terminated:

Fairness refers to the subjective impression that all participants were treated equally and that all arguments and opinions could be openly voiced and had an equal opportunity to be discussed. Subjective fairness is a problematic concept as it relies on people's idiosyncratic criteria of how to judge fair play. There is no objective method to determine whether a silent person behaves like this due to his or her personality or because s/he feels intimidated by other participants or the moderator. The fairness indicator can only reflect the subjective impressions of fairness based on intuition and previous experiences. However, if many individuals independently of each other judge a situation as unfair, one can conclude that there was a problem with fairness in this situation.

Effectiveness refers to overall or partial goal attainment. Has the stated purpose of the participation process been accomplished? Many theoretical approaches of what constitutes "good" participation focus on the practical usability of the results for its initiators. However, from a different perspective it might be more effective if the results prevented a "foolish" project from being implemented. Success does not necessarily mean that the participants will meet the required mandate. Maybe the mandate was too restrictive or the options too distant from the preferences of the participants. In these cases, one can assign effectiveness to a successful reframing of the problem or the rejection of the pre-selected options. As difficult as it is to measure objective effectiveness, it is certainly necessary and valuable to measure subjective effectiveness, as we have attempted to do in our case study.

⁵ Technically all this information was given to the aspiring participants during the recruiting phase and thus could have been measured ahead of the meeting like the motivation block. But the evaluation was rather orientated (by design) on the quality of moderation and the process of participation than on checking the intensity of participant preparation.

Efficiency refers to the appropriate balance between invested effort and results. Again such a judgment requires a subjective yardstick for evaluating appropriateness of efforts. Often external observers judge efficiency by comparing the efforts that went into organizing and conducting the participation process with efforts for normal political decision processes without participation. However, such a comparison (which most often shows an advantage of normal decision processes on the criterion efficiency) misses a central point: Participation was included in the decision-making process to add knowledge to the process or to include external preferences in making crucial choices. In some cases, participation was primarily introduced because past experience suggested that a controversial decision couldn't be made using "classic" decision-making strategies. So a participation process should add functionality or quality to the normal decision-making process – at least in theory. Obviously if you add benefits you also need more resources to follow through.

In addition, efficiency is also an important criterion when it comes to subjective estimates. If the participants' perception of the cost/benefit-ratio is bad – they won't participate again and they will refer to participation as a waste of time. If the ratio is evaluated as positive (even if it may be judged as inefficient by its initiators or external experts), the participants will recall the participation as a worthwhile experience. Even participation efforts that are seen as inefficient from the outside may thus lead to positive resonance if the subjective impression of efficiency is positive. Deliberative processes are often used to deal with controversial topics. Here participation can function as a mediator by giving participants a feeling of being heard and respected. This takes time, and a strong emphasis on "objective" efficiency may in the end be counter-productive to the process and its results.

The dimension *own impact* is one of those criteria that was not anticipated in the theoretical concept but added later to the list of relevant evaluation indicators. It was suggested by the participants themselves when we conducted our qualitative interviews. It refers to individual agency of being heard in the deliberations and being influential in shaping the results. Several participants complained that their expertise, arguments, or concerns were ignored or put aside without proper argumentation. This impression did not rely on the level of personal engagement in the discussion or time-length of speaking. Independent of how much speaking time participants had according to our observational records, they differed in their self-perception of personal impact on the discussion. That is why we selected perceived impact as an independent variable apart from perceived fairness. It is interesting to note that perceived impact turned out to be a good predictor of satisfaction with both output and process.

The final dimension *satisfaction* summarizes the overall judgment of the participants about the quality of both process and output (later outcome). In the BEKO case study, overall satisfaction was measured with a set of items in the written survey after each meeting. Measuring satisfaction at different points in time offers the opportunity to analyze the dynamic development of satisfaction throughout the participation process.

Our research showed that those who felt well-informed about the mandate of the participation, who showed positive acceptance scores throughout the various steps along the deliberative process, and who judged the process as effective and efficient, gave highly positive scores on satisfaction even if they were not totally content with the results.

6. Discussion

Our theoretical investigations show that there is still a long way towards a uniform understanding of participation quality. A common concept of public participation as well as a common empiric framework with shared indicators seems to be highly desirable. Hence such a progress would mean a considerable step towards a theory of public participation, as results originating from different case studies could be compared. As the review on the terminus public participation shows, there is at least a core, shared view that can be comprehended as the lowest common denominator.

In this respect, the set of criteria used for this paper can be deduced from the concept of public participation, but as section 4.2 shows, these criteria have to be adapted to the structure given by the case study in order to maximize the quality of the evaluation. This is the core idea of this paper: We want to show that (and how) best measurement on the quality of public participation is possible only by using a combination of theory-driven criteria and empirical or case-orientated concretization of these – given the lack of a common theory of participation.

Such a flexible approach to the evaluation of participation has been proposed by other authors. In 1998 Beierle examined two different flexible types of evaluation, the Process Evaluation and the Interest-based Evaluation. Beierle claims that the second evaluation is based on the point-of-view of the different groups connected by the participation. He also examines the biggest weakness of such an evaluation: “The main advantage of interest-based evaluations is their relative simplicity: Did party X get what it wanted or not? This simplicity, however, exposes the evaluation’s main weakness as it forces the evaluator to determine which party’s demands are more legitimate.” (Beierle 1998: 14).

This paper presents a different assessment of this evaluation perception: By using a deduced, theoretic set of criteria, the general usability and comparability for scientific standards is granted. The translation into directly measurable dimensions oriented towards the point-of-view of the participants of any participation grants the high usability in research. The “simplicity” of this orientation to focus on the participants enables and constrains any sophisticated researcher to invest into the deeper insight of the research object.

By using such a participant-based approach on the BEKO-Evaluation, we obtained a very precise picture about the quality, the assets, and the errors made in the BEKO-case. This enables future improvement of participation formats.

Besides this advantage, the direct look at participation from the participants’ perspective gave us the chance to find side-effects of participation (e. g., the gain of trust among participants after experiencing a well-organized participation format with high transparency) that might have been lost if a more standardized evaluation approach were applied. The combination of theory and flexible translation to the empirical case is the best practice for quality measurement of public participation.

7. Conclusion

There is no agreed-upon general definition of public participation in the literature. Based on a review of more than 30 definitions, we developed our own concept taking into account the existing approaches and conceptual frameworks. The concept tries to adopt a broad and multi-dimensional approach to public participation. This becomes visible in the operationalization of our concept. Overall, 3 criteria and 8 sub-criteria along with 8 dimensions of participation measurement were generated to assess and evaluate the quality of public participation projects.

The theoretical concept as well as the criteria and sub-criteria that were deduced from this concept inspired a complex participation project in the German state of Baden-Württemberg on public preferences with respect to climate protection and energy supply master plan. In particular, our concept was used to develop an evaluation design to assess the quality of the participation process. This special case study was also chosen as a potential role model for how to measure quality of participation and how to come up with a design that combines theoretical foundations with a flexible, interactive approach that incorporates participants’ feedback directly into the evaluation instruments. The instruments used in this study include half-standardized surveys that were conducted at different time intervals with all participants, systematic

observations, qualitative interviews with selected participants, moderators, organizers and external observers, and document analysis.

Based on our case study we could demonstrate that our evaluation design was appropriate to evaluate different public participation formats and it successfully provided a detailed profile of participation quality. Our experience with using the concept for evaluating a special case also demonstrated that a recursive method of including participants' preferences in the design of the evaluation instruments proved to be very beneficial for grasping crucial elements of what participants perceived as important elements of process or output quality. We therefore promote a learning evaluation approach that is based on a consistent and convincing theoretical concept of public participation but that includes opportunities for design changes that respond to preferences and priorities of the participants. This learning mode needs to be integrated in the overall research design in order to become effective and timely.

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