

Technological Article

# Technique for the Analysis of Social Participation in Councils: Operationalizing Concepts



## Técnica de Análise da Participação Social em Conselhos: Operacionalizando Conceitos

Karla Sessin Dilascio\*<sup>1</sup>  
Charles Borges Rossi<sup>2</sup>  
Paulo Antônio de Almeida Sinisgalli<sup>3</sup>

### ABSTRACT

**Objective:** this technological article presents a research technique used in the analysis of deliberative decision-making processes reports and their related variables to provide insights for institutional design analysis for an empowered participatory governance. **Method:** a descriptive analysis was used to articulate a viable heuristic of creation of a research technique for the operationalization of selected variables from a previously concluded case study, identifying aspects of document analysis, coding content analysis, and qualitative-quantitative translation strategies. **Results:** an adapted binary decomposition technique proved to be useful in the identification of operational variables from the analysis of the decision-making processes reports that can contribute to the production of concise diagnosis on relevant aspects of the institutional design of community councils and its role for the participation of traditional communities in their decisions. **Conclusion:** this article contributes to the expansion of the analytical dimension of deliberative community councils reports, including those related to traditional communities decision-making processes, and can serve as a relevant instrument for researchers for measuring institutional mechanisms of participation, empowerment, and democratic deliberation. The institutional design of community councils can be therefore improved by an increased understanding of the modes of participation of traditional communities in decision-making processes within such deliberative democratic spaces.

**Keywords:** community councils of conservation units; analytical techniques; traditional communities.

### RESUMO

**Objetivo:** este artigo tecnológico apresenta uma técnica empregada na análise de atas de conselhos deliberativos e de suas variáveis para apoiar a reflexão sobre o design institucional de conselhos voltados à governança participativa empoderada. **Método:** utilizou-se a análise descritiva para apresentar o processo heurístico de criação da técnica de pesquisa e de operacionalização de variáveis selecionadas a partir do estudo de caso mencionado, identificando aspectos da análise documental, da análise de conteúdo categorial das atas e da tradução quali-quantitativa das variáveis identificadas. **Resultados:** a técnica de decomposição binária se mostrou útil na identificação de variáveis operacionais a partir da análise das atas de reuniões de conselhos deliberativos que podem auxiliar na produção de diagnóstico conciso sobre aspectos do design institucional de conselhos e da participação deliberativa de comunidades tradicionais. **Conclusão:** o artigo contribui para a ampliação da dimensão analítica das atas de conselhos deliberativos, inclusive no âmbito de comunidades tradicionais, e pode servir como instrumento relevante para uso de pesquisadores na mensuração da participação, do empoderamento e da deliberação, de acordo com o design institucional do conselho, bem como na compreensão das implicações quanto aos modos de participação de comunidades tradicionais na tomada de decisão.

**Palavras-chave:** conselhos gestores; técnica analítica; comunidades tradicionais.

\* Corresponding Author.

1. Universidade de São Paulo, Instituto de Energia e Ambiente, Programa de Pós-Graduação em Ciência Ambiental, São Paulo, SP, Brazil.
2. Universidade Federal do Acre, Cruzeiro do Sul, AC, Brazil.
3. Universidade de São Paulo, Escola de Artes, Ciências e Humanidades, São Paulo, SP, Brazil.

**Cite as:** Sessin-Dilascio, K., Rossi, C. B., & Sinisgalli, P. A. A. (2023). Technique for the analysis of social participation in councils: Operationalizing concepts. *Revista de Administração Contemporânea*, 27(1), e210258. <https://doi.org/10.1590/1982-7849rac2022210258.en>

**Published as Early Access:** May 18, 2022.  
**Assigned to this issue:** October 10, 2022.

# of invited reviewers until the decision:

	1	2	3	4	5	6	7	8	9
1 <sup>st</sup> round	1	1							
2 <sup>nd</sup> round	1	1							

JEL Code: Q280, R520, R580.

**Editor-in-chief:** Marcelo de Souza Bispo (Universidade Federal do Paraíba, PPGA, Brazil)  
**Associate Editor:** Gustavo da Silva Motta (Universidade Federal Fluminense, PPGA, Brazil)  
**Reviewers:** Virgílio César da Silva e Oliveira (Universidade Federal de Juiz de Fora, FACC, Brazil)  
Magnus Luiz Emmendoerfer (Universidade Federal de Viçosa, Brazil)

**Peer Review Report:** The Peer Review Report is available at this [external URL](#).

**Received:** November 09, 2021  
**Last version received:** April 21, 2022  
**Accepted:** April 25, 2022

**Note:** This text is translated from the original Portuguese version, which can be accessed [here](#).

## INTRODUCTION

Questions about why people participate in collective decision-making processes in a public setting and about how to stimulate greater social participation are of great interest to researchers and public administrators dedicated to valorizing democratic spaces and civic responsibility. However, in many contexts the polysemous character of social participation makes it difficult to operationalize and evaluate the concept. According to [Lavalle and Vera \(2011\)](#):

“participation is, at the same time, a category native to the political practice of social actors, a theoretical category of democratic theory with varying weights according to theoretical perspectives and the authors, and an institutionalized procedure with functions bound by laws and regulations” ([Lavalle & Vera, 2011, p. 101](#)).

The first theoretical discussions on social participation, within the scope of contemporary political science theory, were dedicated to understanding the motivations linked to the participation of individuals in collective spaces, the problem of apathy, and inequality in participation ([Kerstenetzky, 2003](#); [Schlozman, Verba, & Brady, 2012](#)). The theories of socioeconomic status (SES) and civic voluntarism (CV) are among the central reflections in this discussion. They arise from studies on the covariation between social stratification and participation, concluding that the wealthier social strata (e.g., higher income, education, and occupation) have a greater degree of participation and that political inequalities are derived from social inequalities ([Verba, Schlozman, & Brady, 1995](#)).

Understanding the role of individual choice in these processes has been the object of Olson’s work ([Olson, 2015](#)) focusing on the collective result of individual choices, extending to the evaluation of the cost of the opportunity of participation. In his work, individuals weigh the costs and benefits of social participation, encompassing direct and indirect gains, scarce resources such as time, money, skills, and self-confidence, in addition to their respective interest in the process ([Rosenstone & Hansen, 1993](#)). Of these decision-making processes, social ‘recruitment’ done through the exchange of information and informal reflections (e.g., among friends and family members) ([Rosenstone & Hansen, 1993](#); [Verba et al., 1995](#)), added to the cognitive dimension of power and to the vices of localism, sectarianism, and a growing diversity of issues, can favor ‘uncivil’ behavior. This makes it difficult to form a link between associativism and the principles of democratic equity, universality, transparency, and equality ([Kerstenetzky, 2003](#); [Schlozman et al., 2012](#)).

While participation generates high costs for the individual and spreads out the agendas and the problems of scale for state entities, associativism (‘associative democracy’), understood as organized political interests, gained strength among theoreticians of Tocquevillian pluralism as a way of reducing the inequalities of social life. They identify that the coupling of individuals and institutionalities could reduce the individual costs of participation and, at the same time, produce organized common interests with a greater possibility of generating responses from state entities ([Kerstenetzky, 2003](#)). [Barber \(2003\)](#) presents this argument to build the concept he names ‘thick democracy,’ alluding to the possibility of expanding participatory democratic institutions (i.e., associations) beyond the state, generating a critical layer that would act in the construction of a strong democracy ([Barber, 2003](#)).

In the context of globalization, the expansion of communication through social networks, and the advance of liberalizing agendas, the question of participation turns toward civil society ([Abers & Bülow, 2011](#); [Alonso, 2009](#)). There is a decoupling of the concepts of representative government and political representation, and a constitutive and operational reinterpretation of participation ([Lavalle, 2011](#)). In this new scenario, there is the institutional pluralization of democracy and the pluralization of representation, which implies changes in the *locus*, functions, and actors of representation.

The rise and multiplication of these representative spaces authorized by the state (i.e., councils)<sup>1</sup> opened the way for complexifying the notion of social participation and its ability ‘to produce specific democratic goods’ ([Vello, 2018](#)), reaching principles such as legitimacy, justice, authorization, and the genuine sharing of power ([Prado, Araujo, Chamy, Dias, & Seixas, 2020](#)). This also required diversification of levels of decentralization ([Patsias, Latendresse, & Bherer, 2013](#)), extension of deliberative processes ([Gaspardo, 2018](#)), and changes in the decision-making capacity of social actors ([Schröter, Sessin-Dilascio, Jericó-Daminello, & Sattler, 2018](#)). The focus turns to understanding the extent to which these democratic spaces allow the influence of citizens on public policies of government at its various levels ([Fung & Wright, 2003](#)).

The literature on empowered participatory governance (EPG) collaborates in this direction, stating that the lack of capacity of liberal democracies to solve problems in response to popular demands is connected to problems of institutional design. EPG seeks to understand and analyze which institutional designs are able to deepen the way in which ordinary people can effectively participate in and influence public policies that directly affect their lives ([Fung & Wright, 2003](#)). According to the authors:

“we call this reform family Empowered Participatory Governance (EPG). They are participatory because they rely upon the commitment and capacities of ordinary people to make sensible decisions through reasoned deliberation and empowered because they attempt to tie action to discussion” (Fung & Wright, 2003, p. 5).

EPG focuses on actions related to solving practical problems of public interest that are supported by deliberative processes that involve ordinary citizens and government agents. EPG studies are supported by empirical analysis of institutional designs that facilitate decision-making and greater implementation power in local action units that, although not autonomous, combine multilevel institutions to find resources, solve problems, and spread innovation and learning. The institutional design of EPG practices “transforms state institutions and restructures the administrative bureaucracy of the state toward deliberation groups authorized by state agents” (Fung & Wright, 2003, p. 5).

According to Patsias, Latendresse and Bherer (2013), Fung and Wright's (2003) EPG is supported by three principles and three institutional design properties. The principles are: (a) practical orientation, (b) bottom-up participation, and (c) deliberative solution generation. The properties are: (a) the devolution of decision-making power to local and intersectoral action units; (b) the coordination and accountability of these local units to a superordinate body; and (c) the restructuring of local government according to the imperatives created by new participatory arrangements.

Understanding and identifying these practical-operational mechanisms, incorporated in institutional design (Fung & Wright, 2003), and which lead to democratic innovations (Avritzer, 2012), can be very useful for researchers, managers, and technicians who want to implement new tools to improve collective decision-making processes.

How can we improve the analysis of council meeting minutes for the betterment of the institutional design of these spaces in order to enhance the processes of deliberation, participation, and empowerment of traditional communities? This is the purpose at which this technological article is aimed.

The analysis technique for council meeting minutes joins other analytical tools for document research (Garcia, Rodrigues, Emmendoerfer, Gava, & Silveira, 2016; Silva, Emmendoerfer, & Cunha, 2020) and content analysis (Bardin, 2011), presenting operative variables that come from concrete cases to help professionals identify institutional design problems that influence the quality

of social participation in councils from the perspective of empowered participatory governance (EPG) literature. The presentation of the technique aims to stimulate an attitude of ‘critical vigilance’ through the use of the technique as a rupture of the ‘intuitive’ knowledge about ‘social significance’ and, at the same time, to avoid the use of the technique for the sake of technique, without commitment to the concrete reason for why the tool is necessary (Bardin, 2011).

The article presents the technique created for the analysis of 14 years (1998–2012) of meeting minutes from the Cardoso Island State Park (*Parque Estadual Ilha do Cardoso — PEIC*) Management Council, recognized nationally and internationally for its capacity for inclusion and the empowerment of the area’s traditional Caiçara communities in park management decision-making, generating positive results in the areas of social and ecosystem security in the territory (Sessin-Dilascio, 2014).

The main objective of this work is to bring proposals of techniques for analyzing council meeting minutes in order to operationalize concepts of participation, empowerment, and deliberation. In the analysis of participation, the article proposes the analysis of the minutes’ metadata (e.g., date, frequency, and type of meeting, among others). As for empowerment, there are suggestions for qualitative-quantitative analysis (e.g., diversity of agenda topics and inclusion of new agendas in the meeting, among others) while the same happens for the operationalization of deliberation (e.g., number of deliberations in each meeting and number of agreements and norms defined at the meeting, among others). The intention is to support the reflection and practice of professionals interested in improving participatory council spaces in terms of deliberative process improvement, traditional community empowerment, increase in diversity of the participating social actors, conflict resolution, and process organization, among other relevant aspects of their operations. The article starts with a brief background presentation on PEIC management and goes through the description and selection of variables for the EPG analysis and its quantitative-qualitative operationalization modes before presenting its conclusions.

### A brief background on the management of the Cardoso Island State Park (*Parque Estadual Ilha do Cardoso — PEIC*) and the role played by traditional communities

The creation of PEIC in 1962, just like many other protected areas of the time, affirmed the paradigm of the separation of nature and humanity, embraced by the preservationist concept of protecting pristine and untouched nature from all human interference (Sessin-Dilascio, Prager, Irvine, & Sinisgalli, 2015). Although relevant at the time,

this model of environmental protection caused several anomalies, such as the expulsion of traditional peoples and communities<sup>2</sup>, whose social and cultural reproduction was intrinsically linked to these territories; it disregarded the role of these communities in forest maintenance (Diegues, 1996; Diegues & Nogara, 1994; Santilli, 2005; Schröter et al., 2014). Such a top-down decision-making modality for environmental preservation disregarded the possibility of the traditional communities' acting in favor of environmental preservation, joining forces with the state to guarantee the preservation of the environment and of their ways of life (Pereira & Diegues, 2010).

The establishment of the democratic regime in the 1980s, associated with the strengthening of discussions on social participation and representation in society, was reflected in the analyses focused on the actions of the state and non-governmental entities in areas of environmental preservation. In organized civil society and social movements, struggles, such as those between the rubber tappers and indigenous peoples during the standoffs in Acre, with the respective formation of the Forest Peoples Alliance (Weiss, 2019), and those of the indigenous peoples in the Constituent Assembly and in the United Nations Conference on Environment and Development (Earth Summit), marked the rise of the concept of socio-environmentalism in Brazil (Santilli, 2005; Sessin-Dilascio, 2014). This change has been accompanied by discussions on the rights of indigenous peoples and traditional communities to their territory and to spaces for democratic participation, sliding into the questioning, theoretically, of the preservationist paradigm. In practice, it supported the expulsion of traditional communities from their territories, which were turned into protected preservation areas — a practice that the state adopted over the years in relation to the communities of Vale do Ribeira (Diegues, 1996; Diegues & Nogara, 1994).

These discussions led to the enactment of Law No. 9985/2000, which instituted the National System of Conservation Units (NSCU), institutionalizing these conflicts in the Brazilian legal system. Subsequently regulated by Federal Decree No. 4340/2002, this law founded the creation of Sustainable Use Conservation Units (SUCU), which guarantee the right of use and occupation of the territory by traditional communities in models such as extractive reserves and sustainable development reserves, reinforcing the socio-environmental paradigm in this institutionality, and the Full Protection Conservation Units (FPCU), such as parks, natural reserves, and others intended for the preservation of nature, according to the preservationist paradigm. The SUCUs would have their deliberative councils active in the management of the protected area, allowing collective decision-making about management to be done during council meetings, while the FPCUs opened advisory bodies, but not for deliberation

about management; the final decision on the direction of their management was left to the state (Sessin-Dilascio, 2014).

This step was important because it incorporated aspects of representative democracy in the decision-making for the management of Brazilian conservation areas, especially enabling and, many times, demanding the participation of social groups historically excluded from these decision-making processes, not to mention the wider range of social exclusion in which they often find themselves. In the case of protected areas, cases of expulsion and persecution of communities that traditionally occupied and effectively protected these territories are common, disregarding the primordial role of these traditional communities in maintaining their environmental integrity (Diegues & Nogara, 1994; Neves, 2006; Pereira & Diegues, 2010; Shepard et al., 2020).

From an institutional point of view, PEIC remained subject to preservationist concepts, which, after the approval of the NSCU, allowed for the removal of local populations that occupied the park's territory, as well as the establishment of an advisory council formed by actors relevant to park management. However, over time, changes that originated within the international context, made possible by foreign financiers in the implementation of park projects, influenced the character of the decision-making processes linked to management, inspection, and monitoring (Schröter et al., 2018).

More specifically, with the demand from the administrators for the elaboration of a park management plan<sup>3</sup> to be built in a participative way with the traditional communities living in its territory, based on the conditions imposed by the German bank, which supported the Atlantic Forest Preservation Project (AFPP) within the scope of the State Secretariat for the Environment (SSE), the way was opened for a significant qualitative change in community participation in the decision-making processes linked to its conception and execution. The Administrative Support Committee was created in the same way, becoming, after the approval of the NSCU, its advisory council (DMC).<sup>4</sup> From these steps and over the next ten years (1998-2008), the PEIC management process, with the support of international funding and the institutional opening of the Forestry Foundation to carry out bottom-up decisions, made it possible to consolidate an adaptive co-management structure in the park (Campolim, Parada, & Yamaoka, 2008; Sattler et al., 2015; Schröter et al., 2018; Sessin-Dilascio et al., 2015).

The process involved the collective discussion of agreements on the use and occupation of the PEIC in a system of itinerant DMC meetings, divided among the six communities that inhabited the area at that time:

Itacuruçá, Camburiu, Marujá, Enseada da Baleia/Vila Rápido, Foles, and Pontal do Leste. This resulted in the elaboration and execution of rules and agreements derived from the management plan, the DMC discussions, and the work of the Marujá Residents Association (Amomar) (Campolim et al., 2008; Sessin-Dilascio et al., 2015). Intertwined processes and norms from distinct spheres of power gradually shaped PEIC's own mode of adaptive co-management of natural resources, operated by innovative institutional designs at the micro level that, with the due support of interested influential groups, began to determine the action of state agencies in a deliberative manner.<sup>5</sup> In this way, the democratic participation operated in the PEIC DMC began to reflect the characteristics of the concept of empowered participatory governance, described by Fung (2006; 2009).

## METHOD

Much of the work of public administration researchers consists of identifying, organizing, and coding documents for the analysis of their content, according to their objectives and hypotheses of interest (Bardin, 2011; Garcia et al., 2016; Silva et al., 2020). Identifying and delimiting the set of documents to be analyzed, guaranteeing the procedural conditions for their access, can be a challenging activity for the researcher.

In the research experiment on which this work is based, the documents analyzed were identified in the first field experience, in the municipality of Cananéia, in the year 2011. However, access to the PEIC DMC meeting minutes was only granted one year later as a result of a long analysis process by the São Paulo Forestry Institute, the government institution responsible for managing São Paulo's state parks. The minutes were on paper, placed in a file, along with several other documents, photos, and decrees. Access to the documents was only permitted in the physical presence of the researcher at the PEIC headquarters, and scanning, photocopying, or any other means of reproduction were not allowed. This required long periods in the field, made possible only by the international funding for the research.

The document analysis (Garcia et al., 2016; Silva et al., 2020) was an essential step toward classification indexing. The analysis of the PEIC decision-making process started with the field collection of 14 years of DMC meeting minutes, totaling a number of 163 records ( $n = 163$ ) from the period between 1998 and 2012. The documental organization was consolidated in an electronic spreadsheet with the objective of facilitating access to the content of the documents, presenting a condensed representation of the information to be later systematized. The limitation on the use of the minutes required that all the content of interest

to the research contained in the minutes be transcribed following the document analysis indexing, to allow the content analysis to be carried out later, away from the field environment.

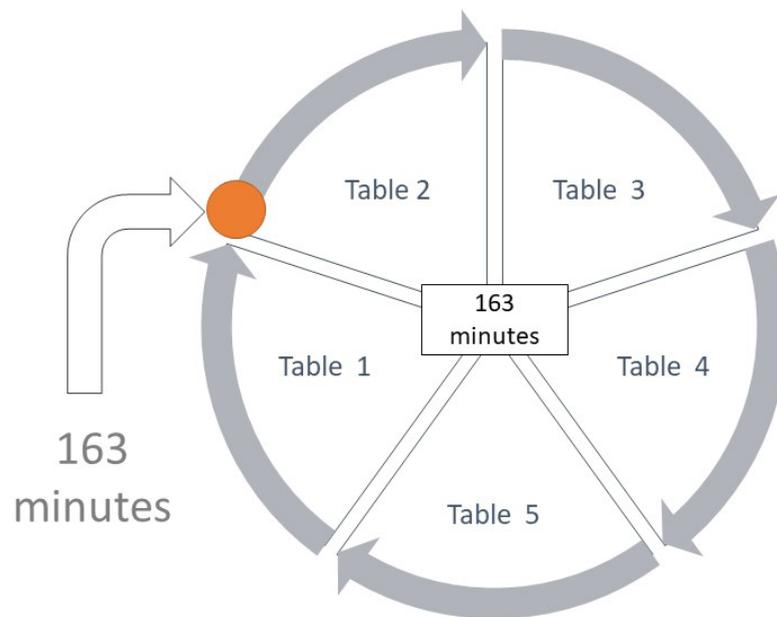
The content of the minutes was then entered into NVivo software for qualitative analysis following the categorical content analysis (Bardin, 2011). Initially, all the content was reread, as an 'exploratory procedure' (Bardin, 2011), in order to determine which variables could be explored from the minutes. Relevant passages were coded ad hoc, and the contents of the codes were reread and reorganized several times, against the backdrop of EPG literature. This taxonomic analysis of the content resulted in quantitative and qualitative indicators of the thematic groups presented in Table 1.

It was from the categorical analysis of the content that it became evident which metadata would be interesting for the composition of the qualitative-quantitative analysis, focused on the identification of EPG operational variables, and, especially, for the analysis of the institutional design of social participation spaces such as councils. The metadata of interest were then systematized in an electronic spreadsheet consolidated from the document analysis. In this article, we define metadata as those that were not organized into the structure of the minutes as the central message of the meeting reports, such as frequency of meetings, rotation in communities, and number of special meetings (see Table 1), but which are essential for understanding the institutional design of social participation spaces. The binary decomposition technique was applied to translate qualitative metadata (for example, the frequency of the meetings, the rotation in the communities, and the number of special meetings) into quantitative variables. In the analysis, we decided to omit the real names of the subjects representing the council to avoid any embarrassment or local political disputes.

The flow of tables was organized for the sake of composing a logical narrative for the article; however, in the analysis it does not follow the same timeline as the one presented. The creation of the tables followed a circular flow of reading and reflection, which deepened with each time around. The exploration of the data that started with the document analysis and the ad hoc analysis of code creation in NVivo made clear the complexity of the path to be followed. The exploratory analysis allowed the identification of metadata and the creation of the first table (Table 2), which stimulated a deeper analysis based on qualitative data that could be quickly mobilized and translated into quantitative data. After several attempts and failures to find consistent variables that could be quantitatively translated to create quantifiable numerical data (Table 3), we arrived at Table 4. Note that this table was created after several reading

and trial-and-error cycles of the analysis. In Table 5, greater sophistication is noted in the aggregation of information derived from the NVivo qualitative data analysis program, which was possible after several revisions of the codes created in the software, the identification and exclusion of

the operationalization of some qualitative data (Table 3), and the nearly exhaustive analysis of the minutes. Finally, all variables were aggregated with their respective concepts, generating Table 1. Figure 1 illustrates the flow of creation for the tables presented in this article.



**Figure 1.** Flow of analysis and creation of the tables presented in the article.  
Source: Elaborated by the authors.

In the following sections, a descriptive analysis of the binary decomposition technique used to translate qualitative data into quantitative will be presented (Leite Filho, 2008) as well as the variables defined to operationalize key concepts of EPG (i.e., participation, empowerment, and deliberation), identifying important structures that made up the institutional design of the PEIC DMC, created to ensure social participation of the traditional Caiçara communities that inhabited the area of the park.

### THE ANALYSIS TECHNIQUE FOR EMPOWERED PARTICIPATIVE GOVERNANCE IN THE PEIC MANAGEMENT COUNCIL

The analysis of the institutional design of the PEIC DMC prioritized the identification of data and its translation into operational variables dedicated to

understanding the institutional structure that provided for greater social participation of traditional communities in park management, anticipating moments of deliberation that had practical effects on the management. We chose to emphasize the operationalization of the analysis technique within the concepts of: (a) participation, (b) empowerment, and (c) deliberation.

Some questions were considered to assist in the evaluation process of the institutional design operated to expand EPG in the DMC meetings: (a) what are the patterns of social participation, (b) how are the meetings organized (participation), (c) which norms (formal and informal) and processes were created that facilitated the inclusion of Caiçara communities in deliberative processes (empowerment), (d) how does the dialogue between the government representatives and the councilors take place, and (e) how are the discussions connected with public actions (deliberation)? Metadata and qualitative data were

extracted from these minutes. The operationalization of EPG concepts (i.e., participation, empowerment, and deliberation) for the case study on PEIC's adaptive co-management was elaborated in two stages: (a) all the data extracted from the DMC minutes were organized among the concepts, supported in the literature and in the definitions presented in the Introduction, and (b) the variables created from the data and according to EPG concepts were listed.

Table 1 presents the list of data (metadata, quantitative data, and qualitative data) that were extracted from the minutes and the variables created. The extracted metadata that quantitatively operationalized the concept of participation were: (a) date of the meetings, (b) frequency of the meetings, (c) type of meeting (regular or special), (d) location of the meetings, (e) number of people present, (f) number of council representatives present at the meeting, (g) number of institutes represented, (h) diversity of institutes represented, (i) number of people from the communities, (j) number of community representatives from the DMC, and (k) presence of families from Marujá at the meeting<sup>6</sup>. The qualitative data identified to quantitatively operationalize the concept of empowerment were: (a) diversity of subjects on the agenda, (b) inclusion of new agendas in the meeting by representatives not from PEIC management, (c) number of issues raised by social actors, (d) diversity of issues raised by community members, (e) moments in which Caiçara communities were mentioned, (f) moments in which the Caiçara communities gave their opinions, (g) diversity of issues raised by each community, (h) diversity of issues raised by community families, (i) formation of commissions in the DMC, and (j) diversity of issues raised by social actors. The qualitative data identified to quantitatively operationalize the data on deliberation were: (a) number of deliberations at each meeting, (b) number of agreements and norms (formal and informal) defined at the meeting, (c) presence of the PEIC director at the meetings, and (d) deliberation by community.

It is important to emphasize that the identification of the data to be used in the technique of binary decomposition and the identification of the variables, as well as their grouping, did not appear previously in the analysis as a 'closed procedure' but as 'exploration procedures,' which occurred over the course of repetitive readings of the minutes, the coding process in NVivo, and the recoding, concatenated with the readings and notes of the EPG literature. This was a circular process of reading, analyzing, and reflecting, in which the understanding of the concepts and variables was deepened with each turn. In the following sections, the technique used to organize these data in an electronic spreadsheet and the data processing technique of binary refinement by aggregation will be presented, as well as the result that can be derived from these data processing

techniques to help managers and researchers in the analysis of EPG, based on council meeting minutes.

It is important to emphasize that in the analysis of the minutes, it became clear that there was a multiplicity of social actors responsible for writing them over the 14 years ( $n = 163$ ); the diversity of formats and structure in the writing reflected this. Some minutes were extremely detailed while others paid attention only to the resolutions, leaving out any description of arguments or disagreements during the time of the meeting, so many relevant data may have been lost. When reading these minutes, it was possible to infer the difference in the details of the subjects, description of the actors who participated and put subjects on the agenda, as well as in the description of the facts. The lack of definition of a format or methodology for composing the minutes and for discussing how they should be drafted may have reduced the possibilities and scope of the document analysis of the DMC social participation process.

### Organization and analysis technique for the DMC minutes' metadata

From the readings, organization, classification, analysis, and reflection on the content of the DMC minutes ( $n = 163$ ), the metadata that could be used were identified, according to the concepts of interest to EPG, also considering the context in which the council was inserted. In the case of PEIC, the frequency of meetings, the rotation in the communities, and the number of special meetings emerged as relevant metadata to be considered in the analysis. This is judged by the territorial extension of the park, by the number and diversity of traditional communities that live in the area and are part of the DMC, and by the complexity and urgency of the issues and conflicts discussed. These contextual elements obligated the institutional design to consider arrangements that facilitated the participation of these communities and the prioritization of subjects that are urgent to them.

In the document analysis organized in an electronic spreadsheet, codes for the minutes were defined and the raw data were standardized, with the codes and information of the minutes distributed in its rows (codes of the minutes and dates of the minutes) and the metadata arising from the analysis of the NVivo codes in its columns. After inserting the metadata of interest in these columns, corresponding to each row of minutes, the data processing was started using the binary decomposition technique. The composition of the data in variables and their approximation regarding the characterization of the concepts were carried out later. It is noted that the metadata in question were the basis for the operationalization of the concept of 'participation' (Table 1).

**Table 1.** Data extracted from the analysis of DMC meeting minutes.

Concepts	Type of data	Analyzed data	Created variables	
Participation	Metadata	1) Date of the meetings	Frequency of the regular meetings per year	
		2) Frequency of the meetings		
		3) Type of meeting (regular or special)		
		4) Location of the meetings	Meeting rotation	
		5) Number of people present	Diversity of social actors	
		6) Number of council representatives present at the meeting		
		7) Number of institutes represented		
		8) Diversity of institutes represented		
		9) Number of people from the communities	Presence of the communities at the meetings	
		10) Number of community representatives from the DMC		
		11) Presence of families from Marujá at the meeting	Representation of Marujá social participation	
Empowerment	Quali-quantitative	1) Diversity of subjects on the agenda	Empowerment of the social actors who make up the DMC	
		2) Inclusion of new agendas in the meeting by representatives not from PEIC management		
		3) Number of issues raised by social actors		
		4) Diversity of issues raised by community members		
		5) Moments in which the Caiçara communities were mentioned	Empowerment of the communities	
		6) Moments in which the Caiçara communities gave their opinions		
		7) Diversity of issues raised by each community		
		8) Diversity of issues raised by community families		
		9) Formation of commissions in the DMC		Empowered governance
		10) Diversity of issues raised by social actors		
Deliberations	Quali-quantitative	1) Number of deliberations at each meeting	Norms and agreements made during the meeting	
		2) Number of agreements and norms (formal and informal) defined at the meeting		
		3) Presence of the PEIC director at the meetings	Deliberations on construction and renovations for the Marujá community	
		4) Deliberation by community		

**Note.** Source: Elaborated by the authors, based on the minutes of the PEIC council meetings between 1998 and 2012.

The variables created from the metadata of the minutes were: (a) frequency of regular meetings per year (based on the data for: 1. date of the meetings, 2. frequency of the meetings, and 3. type of meeting — regular or special), (b) rotation of meetings (based on: 4. location of the meetings), (c) diversity of social actors (based on the data for: 5. number of people present, 6. number of council representatives present at the meeting, 7. number of institutions represented, and 8. diversity of institutions represented), (d) community presence at meetings (based on

the data for: 9. number of people from the communities, 10. number of community representatives from the DMC), and (e) representation of social participation from Marujá (based on: 11. presence of Marujá families at the meeting). The minutes received codes according to date distribution, with minutes 1 in row 1, and so on. The minutes were divided by year. Table 2 presents examples of how the data were organized, indicating just a few sample minutes for the practical purpose of illustration. The names of the people mentioned are fictitious.

**Table 2.** Example of DMC meeting metadata processing.

a) Frequency of regular meetings										
Code	Year	Type of meeting	Regular	Special						
1	1998	R	1	0						
2	1998	R	1	0						
b) Rotation of meetings										
Code/ minutes	Year	Location	PEIC	Marujá	Enseada	Itacuruçá	Camburiu	Foles	Pontal	
12	1999	Park	1	0	0	0	0	0	0	
13	1999	Itacuruçá	0	0	0	1	0	0	0	
c) Diversity of social actors										
Code	Year	DMC Representative	Non-DMC present	Association	Local gov.	Environmental body	Church	NGO	Indigenous	Others
12	1999	SOS, Fisheries Institute, Gaia, City Hall	Nupaub/USP, Unesp Rio Claro intern	0	1	0	0	3	0	0
13	1999	SOS, Fisheries Institute, Gaia, City Hall	Caio, Milton and city council member	0	1	0	0	3	0	0
d) Community presence at meetings										
Code	Year	DMC Representative	Non-DMC present	PEIC	Enseada	Iacuruçá	Camburiu	Foles	Pontal	Marujá
12	1999	SOS, Fisheries Institute, Gaia, City Hall	Nupaub/USP, Unesp Rio Claro intern	1	0	(1)	0	0	0	(1)
13	199	SOS, Fisheries Institute, GAIA, City Hall	Caio, Milton, and city council member	0	0	(1)	0	0	(1)	(2)
e) Representation of social participation from Marujá										
Code/ minutes	Year	DMC Representative	Resident	Family 1	F2	F3	F4	F5	F6	F7
7	1998	Oliveira (1)	Iza (3), Celestino (6)	1	0	1	0	0	1	0
10	1998	Oliveira (1)	Celestino (6)	1	0	0	0	0	1	0

**Note.** Source: Elaborated by the authors, based on the minutes of the PEIC council meetings between 1998 and 2012.

It is interesting to note that many of the metadata collected were not recognized as variables due to some factors: (a) the number of occurrences was very low (for example, it was rare that the representatives of communities other than Marujá had their arguments considered in the minutes, as was the inclusion of new agendas in the meeting by representatives other than PEIC management), (b) the occurrence was common, so it was not necessary to generate a variable (for example, the constant presence of a state government representative in council meetings), (c) the data became irrelevant for the analysis (for example, the time at which the meetings took place in that context made no difference to the community members, or the institution responsible for writing the minutes varied little), and (d) the data was very spaced out (as in, for example, the formation of committees).

The non-variation of some metadata served as an indication of practices that took place outside of the DMC meeting environment and that were incorporated into semi-

structured questionnaires applied to the park director, to the representatives of the institutions, and to the communities. As an example of this, the time of the meetings was previously agreed upon with the representatives of the council, information that was clarified after the analysis of the minutes. The number of people present at the council also varied little since the writer of the minutes prioritized inserting the names of the official representatives of the council as a quorum, especially when these meetings took place in the communities, and the number of people listening was too high to fit into the minutes.

### Organization technique, analysis, and translation of qualitative data into quantitative, based on the DMC meeting minutes

The identification of qualitative data and those that could be transformed into quantitative data required several cycles of systematic reading of all the meeting minutes during

the study period (i.e., 14 years, n = 163). The first reading from the angle of content analysis of the minutes began with the database derived from the document analysis inserted in NVivo. Several readings were carried out, with the ad hoc creation of descriptive categories, which were revised and improved at each reading. In this process, we sought to identify which qualitative data best operationalized the concepts of the EPG literature and which variables could be derived from these data with the creation of codes in NVivo. This step allowed the organization of the tables that would be used as a basis for the binary decomposition technique, based on the structure of document analysis. The columns presented the qualitative data that would compose the definition of each variable, with the code for the year of the minutes being the metainformation replicated in each analysis.

The qualitative data listed were aggregated into variables (Table 1) that operationalized the concept of empowerment as follows: (a) empowerment of the social actors who make up the DMC (from the data of: diversity of subjects on the agenda, inclusion of new agendas in the meeting by representatives not from PEIC management, number of issues raised by social actors, diversity of issues raised by community members, and

moments in which Caiçara communities were mentioned), (b) empowerment of the communities (based on data from: moments when Caiçara communities expressed their opinions, diversity of issues raised by each community, and diversity of issues raised by community families), and (c) empowered governance (based on data from: formation of commissions in the DMC and diversity of issues raised by social actors). The concept of deliberation comprised: (a) norms and agreements created during the meeting (from the data for: number of deliberations at each meeting, number of agreements and norms — formal and informal — defined at the meeting, and presence of the PEIC director at the meetings), and (b) deliberations on constructions and renovations for the Marujá community (based on the deliberation data per community).

Even though Table 1 presents the qualitative data related to each variable of each concept, it is important to emphasize that some of the data found were not apt for operationalization, especially due to flawed structuring of the minutes that favored the inclusion of relevant and systematic information related to practical issues of interest to the management. In addition to this element, other characteristics of the datum made its collection and analysis impossible (Table 3).

**Table 3.** Qualitative data identified but not operationalized.

Concept	Variable	Data not analyzed	Observation	
Empowerment	Social actors who make up the DMC	1) Diversity of subjects on the agenda	There was a limitation on the number of subjects inserted by the PEIC director on the agenda, considering the cost of time and human resources for each subject. Because of this, the quantity of initial subjects did not vary much and was not considered an important datum.	
		2) Inclusion of new agendas in the meeting by representatives not from PEIC management	Missing aggregate information on the name and/or the institution responsible for the new agenda.	
	Communities	4) Diversity of issues raised by community members	The composition of the minutes did not favor the identification of all the social actors present at the meetings, only those who were elected council representatives. In addition, off-topic interventions were not systematized.	
		7) Diversity of issues raised by each community	Larger number of issues raised by representatives from Marujá.	
	EG	8) Diversity of issues raised by community families	Larger number of issues raised by representatives from Marujá, with higher frequency of one single family's participation.	
		9) Formation of commissions in the DMC	From the minutes, only lists of the commissions formed were possible, but there was no systematic process of organizing the minutes for these commissions, nor was it clear in the DMC minutes which were the deliberations that emerged from these commissions. Consequently, this data were not included in the analysis.	
		10) Diversity of issues raised by social actors	The qualitative analysis of the agendas of each minute made it possible to extract a new variable from the metadata of the diversity of subjects brought to the discussion by different social actors.	
	Deliberations	Norms and agreements created during the meeting	1) Number of deliberations at each meeting	A low number, compared to the number of meetings, but not unimportant. The deliberations were the result of intense discussions and arguments that often lasted for a considerable number of meetings, especially those that touched on interests that were precious to the local communities and elites. Some took more than seven years to end.
			3) Presence of the PEIC director at meetings	Obligatory and constant, therefore not relevant as a variable.

Note. Source: Elaborated by the authors, based on the minutes of the PEIC council meetings between 1998 and 2012.

After the qualitative data not to be operationalized was defined (Table 3), the qualitative information from the minutes was coded. The minutes' main concepts, or rather the agendas that were discussed at each meeting, were then identified. The agendas incorporate both the topics previously designated for the meeting and those that emerged during the discussion process, which had not been previously selected by the park's management council. A code was established for each agenda designated for each code of the minutes and

the respective date. It was noted that the first meetings were populated with an immense range of demands to be discussed at the meeting and that, many times, these were not met due to lack of time. The institutional learning process has reduced the number of agendas per meeting over time, making room for deeper discussion on the chosen theme. Table 4 presents examples of the coding of meeting agendas, and minutes 1, 3, and 6 (n = 163) were chosen as illustrative examples.

**Table 4.** Illustrative table of the coding of meeting agendas in their respective variables.

Concept	Empowerment of social actors who make up the DMC		
	Variable	Code	Agenda
Empowerment	a. Diversity of discussed subjects	1	1. Importance of PEIC resident communities in the Management Plan, 2. Function and action of the Management Committee on PEIC norms, 3. Discussion of the composition of the Management Committee (institutions, members, and alternates).
	b. Number of issues raised by social actors	3	Association of each social actor to the agenda code for each meeting minutes, such as: Church (5, 6, 3, 15, 16), Communities (3), F. Inst. (3), DPRN (3, 10, 15, 16), Gaia (7), Marujá (7, 12, 10), Ocimar (7, 14, 16), Itacuruçá (14).
	c. Number of times that each community is mentioned in the meetings	3	1. Organization of the minutes, 2. PED, 3. Sust. Fisheries, 4. Water supply for the communities, 5. Issue of hunting with dogs, 6. Marujá community campground, 7. Water supply for Marujá, 8. Amomar, 9. Waste collection, 10. Confection of fish traps, 11. Authorization for planting, 12. Wood for canoes, 13. EcoWatt, 14. Renovations and constructions (there was no special meeting), 15. Deliberations of renovations and constructions.
	d. Moments when Caiçara communities expressed their opinions	6	1. Organization of the minutes, 2. PED, 3. Sust. Fisheries, 4. Water supply for the communities, 5. Issue of hunting with dogs, 6. Marujá community campground.
Deliberations	e. Marujá community	6	1. Seasonal rentals in Marujá, 2. Resident registry, 3. Pró-Lagamar Project, 4. Indigenous issues, 5. Water in Camburiu, 6. Sale of houses in Marujá.

**Note.** Source: Elaborated by the authors, based on the minutes of the PEIC council meetings between 1998 and 2012.

Table 5 presents examples of how the analysis of qualitative variables translated into quantitative variables by the binary decomposition technique operated. Note that the same structure of document analysis was used; however, there was greater sophistication regarding the aggregation of information derived from the NVivo qualitative data analysis program.

The concept 'empowerment of the actors who make up the DMC' was associated with the variables: (a) diversity of subjects discussed and (b) number of times each community is mentioned in the meetings. The concept of 'empowerment of the communities' covered: (c) moments when Caiçara communities expressed their opinions and (d) deliberations. The variables were composed of micro-variables derived from the organization of data from all the meeting minutes, following the model proposed in Table 4.

The variable of diversity of subjects discussed (a) was operationalized from the composition of the micro-variables: communities (basic, houses, and traditional), administration (organization, plans, physical infrastructure,

and partnerships), environment (organization, exotic species, and use of natural resources), indigenous people, and tourism (such as support capacity, organization, and summer operation) (Table 5a). The variable referring to the mention of each community in the meetings (b) was operationalized by identifying the mention of the name of the community and/or the names of its residents in the meeting minutes. These mentions were organized and decomposed by the technique of binary decomposition by aggregation (Table 5b).

The number of issues raised by social actors was a derivation of the variable 'participation/diversity of issues discussed' (Table 5c). Since the agendas had been numerically organized for the previous analysis, the numbers of each agenda of the day were associated with the social actors who mentioned them at each meeting. An analysis code was created to correlate each associated social actor with the code/number of the agenda that the actor mentioned on the day of the meeting: church (5, 6, 3, 15, 16), communities (3), institute (3), DPRN (3, 10, 15, 16), Gaia (7), Marujá (7, 12, 10), Ocimar (7, 14, 16), and Itacuruçá (14).

Each of these actors was divided into their categories: associations, local government, environmental police, church, NGO, communities other than Marujá, Marujá, and indigenous people. The step followed the same logic as the previous step — technique of binary decomposition by aggregation (Table 5b).

When the Caiçara communities expressed their opinion, the same code/number of the agenda that the community actor mentioned on the day of the meeting was used. The next step respected the same logic as Table 5b

(Table 5c). This analysis contributed to the discussions on representation in social participation, very present in recent literature on the subject.

In constructions and renovations, for the Marujá community, all the moments were listed in which Marujá community representatives made approval requests to the DMC for constructions and renovations in the community in each meeting, as well as the number of requests fulfilled. This step followed the same logic as the previous step — the technique of binary decomposition by aggregation (Table 5d).

**Table 5.** Example of the operationalization of the binary decomposition technique of qualitative data.

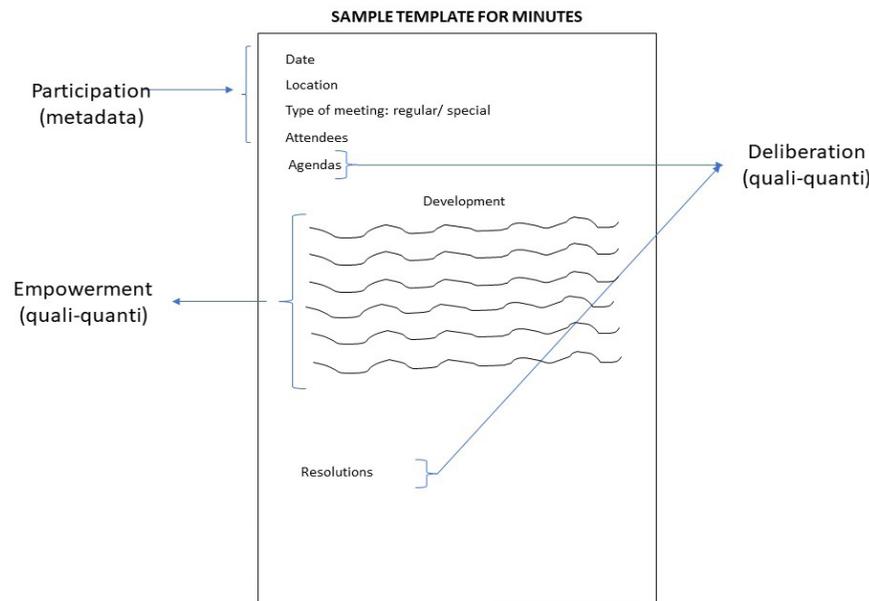
Concept	Variables													
	Empowerment of the actors who make up the DMC	a. Diversity of subjects discussed												
Code		1. Communities			2. Administration			3. Environment			4. Indigenous people	5. Tourism		
		Basic	Houses	Traditional	Org.	Infra.	Partnership	Org.	Exotic species	NR		Capacitation	Org.	Summer operation
1		0	0	1	2	0	0	0	0	0	0	0	0	
b. Number of times that each community is mentioned in the meetings														
Code		Communities	Marujá	Itacuruçá	Enseada	Pontal	Camburiu	Foles						
3		Marujá (2), Itacuruçá (0), Enseada (0), Pontal (0), Camburiu (0), Foles (0)	2	0	1	0	0	0						
c. Number of issues raised by social actors														
Code		Actors	No. agendas	Associations	Local government	Environmental police	Church	NGO	Communities — Marujá	Marujá	Indigenous people			
		Church (5, 6, 3, 15, 16), Communities (3), F. Inst. (3), DPRN (3, 10, 15, 16), Gaia (7), Marujá (7, 12, 10), Ocimar (7, 14, 16), Itacuruçá (14)	16	1	4	0	5	1	1	3	0			
Empowerment of the communities	c. Moments in which the Caiçara communities gave their opinions													
	Code	Communities	Marujá	Itacuruçá	Enseada	Pontal	Camburiu	Foles						
	6	Marujá (4, 6), Itacuruçá (5), Enseada (0), Pontal (0), Camburiu (0), Foles (0)	2	1	0	0	0	0						
	d. Deliberations													
Code	Deliberations related to Marujá	Fulfilled	Not fulfilled											
6	1, 5, 6	1	0											

**Note.** Source: Elaborated by the authors, based on the PEIC council meeting minutes (names are fictitious).

## ON THE BINARY DECOMPOSITION TECHNIQUE

In Brazil, institutionalized spaces for social participation such as councils produce information in their bureaucratic flow — the minutes of their meetings —, which are rarely used for institutional reflection or improvement of internal decision-making processes. As presented in the Introduction, many of the problems related to low or ineffective social participation in decision-making are related to the institutional design (Fung & Wright, 2003) of these democratic spaces. Tools to identify problems related to the institutional design of councils and to identify these practical-operational mechanisms that can be incorporated to improve social participation are still not widespread.

Councils should be spaces for collective discussion, reflection, and, even more so, decision-making, where possible solutions can be created for the practical problems related to citizens’ needs, in terms of the implementation, review, or creation of public policies. According to EPG literature, the institutional design of the councils should be guided by orientation for practice, bottom-up participation, and the creation of possible solutions through deliberation. The technique of analyzing council meeting minutes presented in this article is a useful tool for identifying the flaws and the potentiality of institutional design within the scope of EPG guidelines. Figure 2 presents the meeting minutes template that was commonly used by PEIC and whose format prevails in many preparations of minutes. It is noted the location of the data transformed into variables for the analysis of the GPE of the PEIC management, described in Table 1.



**Figure 2.** Minutes template sample indicated for the use of the binary decomposition technique.

Source: Elaborated by the authors.

The first step in facilitating the analysis of the minutes is a document analysis by creating an indexed database in which information from the underlying analysis can be entered. As mentioned, the broader format for creation of the council minutes is aimed at obtaining metadata (Figure 2), such as those pointed out in Table 1 (for example, date and location of the meeting, among other aspects), which already provide information relevant to the identification of the variables of meeting frequency, diversity of social

actors, representation, and those that can be indexed as primary variables of the minutes database, to be mobilized quickly with the aim of producing information relevant to the design.

The analysis of the deliberations can be the second step in the organization of the minutes database. Information of this type can be mobilized, comparing the number and quality of meeting agendas and their resolutions (Figure 2, Table 1). It is the analysis of empowerment that requires

more analytical and reflective time because it directs the analysis to the development of the discussions presented in the minutes and requires the most active mobilization in the categorical content analysis, as well as the use of qualitative analysis tools (such as NVivo software). The transformation of this information into categorical data that can be translated into quantitative data depends on these previous processes of analysis and contextual information, which provide context for the discussions.

The interpretation of analyses derived from council meeting minutes may indicate problems in the council's institutional design that lead to low social participation and deliberation. As an example, if there is a low diversity of institutions and low attendance of non-state actors at meetings, this may indicate that the mobilization for meetings is not necessarily sufficient or that the social actors are not recognizing the council space as sufficient to meet their needs for civic responsibility. If there are deliberations of the agendas inserted in the meeting, including the participation of non-state social actors, this variable may indicate that the institutional design is aimed toward popular control. There are other possible combinations of variables for different purposes (for a more in-depth discussion see [Sessin-Dilascio \(2014\)](#) and [Sessin-Dilascio et al. \(2015\)](#), depending on the interest of the manager or researcher.

Once the quantitative values of the variables selected by the application of the technique are defined, it is possible to submit them to descriptive statistics analysis or the cross-referencing of variables (for example, correlation analysis), depending on the number of minutes analyzed ( $n$  greater than 100 is suggested).

It is important to emphasize that the application of the binary decomposition technique for the analysis of minutes is only possible in spaces where written records of the meetings are used and where a determinate template is followed (Figure 2). The description of the discussions is the essential point for enabling the analysis of empowerment. Inserting the name of the people who had the space to speak is recommended in order to better understand the division of powers and identify those who actually make the decisions. The variation in the writing of the minutes can be mitigated by choosing a minimal format and incorporating this practice into the institutional culture of the council. The organization and an indexed database of the minutes, including space for continuous systematization in a spreadsheet, are recommended to facilitate the access and systematization of metadata, which can later be easily mobilized into variables of interest.

## CONCLUSION

The article presents how an analytical possibility of document analysis of the minutes of council meetings can improve the institutional design of these spaces, toward enhancing participation, empowerment, and democratic deliberation. The minutes are incorporated in many structures of the state apparatus, often being used only as a merely bureaucratic instrument for archival purposes. The technique of binary decomposition and the presentation of the derived variables, from the meticulous study of the Cardoso Island State Park Management Council meeting minutes, presents a new perspective on the use of this material, which can be used to improve the institutional design of councils with the intent to enhance empowered participatory governance.

The technique points out ways of systematizing and building a database of the minutes (document analysis) as a first step in data indexing. The next stage would be the systematization of this indexing in a spreadsheet, based on basic metadata (Figure 2, Table 1) aimed at understanding social participation. The analysis of more superficial content of the minutes from defined variables (Table 1) generates information on the deliberative processes, which can be quantified using the binary decomposition technique. Only these two concepts, participation and deliberation, can be extracted from the minutes with less analytical effort (Figure 2). The analysis of empowerment, however, requires greater specification in the description of the meetings' discussions in the minutes, as well as greater effort in the categorical content analysis, which may require the use of qualitative analysis software (such as NVivo).

The analysis of the minutes using the binary decomposition technique requires the council environment to incorporate the systematization of the discussions in structured records through documents such as meeting minutes, including greater detail in the description, in addition to their archiving and availability to directors responsible for planning the institutional design of councils or representatives interested in proposing changes in the direction of EPG. This type of analysis makes it possible to find ways to promote greater diversity in the representation of traditional communities and point out flaws in institutional design, including from the quantifiable variables of diversity, representativeness, and deliberation, central to the diagnoses of deliberative councils.

The effects of social inequality and the low social participation of vulnerable populations in decision-making within council spaces have long been discussed in the literature (as, for example, within the theoretical scope of socioeconomic status and civic voluntarism), as well as problems associated with the sharing of power, the levels

of its decentralization, and the extension of deliberative processes. This article presents a technique that can help managers and researchers who are interested in identifying the possible causes related to these problems. With the systematic analysis of meeting minutes and the reflection, through the variables indicated in this article, of the institutional design of these bodies of institutionalized social participation, this article contributes to the promotion of new strategies for social inclusion and the construction of deliberative practices guided by and for the popular control of vulnerable populations, minorities, and traditional communities.

## NOTES

1. To analyze the background and more detailed discussions on the subject, we suggest [Allebrandt \(2008\)](#), [Allebrandt \(2003\)](#) and [Allebrandt, Siedenberg, Sausen and Deckert \(2011\)](#).
2. According to art. 3 of Federal Decree No. 6040/2007: "Traditional Peoples and Communities: culturally differentiated groups, who identify themselves as such, which have their own forms of social organization and

occupy and use territories and natural resources as a condition for their cultural, social, religious, ancestral, and economic reproduction, using knowledge, innovations, and practices generated and transmitted by tradition."

3. Technical document similar to a master plan or ecological economical zoning applied to a conservation unit. The document points to zones and rules for soil and natural resource use, as well as management guidelines for the unit.
4. Since the advisory council effectively operated as a deliberative management council, the initialism DMC was chosen to refer to this council.
5. The law defines that the councils of full protection conservation units must be advisory and not deliberative. The PEIC council, during the years of adaptive co-management (1998-2008), acted in a deliberative manner, reorganizing the federal/state norms for local needs.
6. This datum is the result of the compilation of empirical data collected during the fieldwork in the Marujá community, which provided the genealogy of the community's families, published in [Sessin-Dilascio \(2014\)](#).

## REFERENCES

- Abers, R., & Bülow, M. U. (2011). Movimentos sociais na teoria e na prática: Como estudar o ativismo através da fronteira entre Estado e sociedade? *Sociologias*, 13(28), 52–84. <https://doi.org/10.1590/S1517-45222011000300004>
- Allebrandt, S. (2008). Conselhos distritais e a gestão do desenvolvimento local: Relações de poder e participação na gestão pública. In M. Baquero & D. Cremonese (Orgs.), *Desenvolvimento regional, democracia local e capital social* (pp. 173–210). Ijuí, RS, Brazil: Unijuí. Retrieved from <https://www.unisc.br/site/sidr/2006/textos3/07.pdf>
- Allebrandt, S. L. (2003, September). Conselhos municipais: Potencialidades e limites para a efetividade e eficácia de um espaço público para a construção da cidadania interativa. *Proceedings of the Encontro Anual da ANPAD*, Atibaia, SP, Brazil, 27.
- Allebrandt, S., Siedenberg, D., Sausen, J., & Deckert, C. (2011). Gestão social e cidadania deliberativa: Uma análise da experiência dos Coredes no Rio Grande do Sul, 1990-2010. *Cadernos EBAPE.BR*, 9(3), 914–945. <https://doi.org/10.1590/S1679-39512011000300012>
- Alonso, A. (2009). As teorias dos movimentos sociais: Um balanço do debate. *Lua Nova: Revista de Cultura e Política*, 76, 49–86. <https://doi.org/10.1590/S0102-64452009000100003>
- Avritzer, L. (2012). The different designs of public participation in Brazil: Deliberation, power sharing and public ratification. *Critical Policy Studies*, 6(2), 113–127. <https://doi.org/10.1080/19460171.2012.689732>
- Barber, B. (2003). *Strong democracy: Participatory politics for a new age*. Oakland, CA: University of California Press.
- Bardin, L. (2011). *Análise de conteúdo*. Lisbon: Edições 70.
- Campolim, M. B., Parada, I. S., & Yamaoka, J. G. (2008). Gestão participativa da gestão pública na comunidade do Marujá - Parque Estadual da Ilha do Cardoso. *IF Série Registros*, (33), 39–49. Retrieved from [https://smastr16.blob.core.windows.net/iflorestal/RIF/SerieRegistros/IFSR33/IFSR33\\_39-49.pdf](https://smastr16.blob.core.windows.net/iflorestal/RIF/SerieRegistros/IFSR33/IFSR33_39-49.pdf)
- Diegues, A. C. (1996). As populações humanas em áreas naturais protegidas da Mata Atlântica [Working paper]. *Universidade de São Paulo, Faculdade de Filosofia, Letras e Ciências Humanas, Centro de Culturas Marítimas, Núcleo de Apoio à Pesquisa sobre Populações*, São Paulo, Brazil. Retrieved from <https://nupaub.ffch.usp.br/sites/nupaub.ffch.usp.br/files/color/ConflitosnaMataAtlantica.pdf>
- Diegues, A. C., & Nogara, P. J. (1994). *O nosso lugar virou parque: Estudo socio-ambiental do saco de Mamanguá, Parati, Rio de Janeiro*. São Paulo, Brazil: USP/NUPAUB.
- Fung, A., & Wright, E. O. (2003). *Deepening democracy: Institutional innovations in empowered participatory governance* (Vol. 4). New York: Verso.
- Fung, A. (2006). Varieties of participation in complex governance. *Public Administration Review*, 66(S1), 66–75. <https://doi.org/10.1111/j.1540-6210.2006.00667.x>

- Fung, A. (2009). *Empowered participation: Reinventing urban democracy*. Princeton, NJ: Princeton University Press.
- Garcia, M. de O., Rodrigues, P. E. L., Emmendoerfer, M. L., Gava, R., & Silveira, S. de F. R. (2016). Usos da pesquisa documental em estudos sobre administração pública no Brasil. *Teoria e Prática Em Administração*, 6(1), 41–68. Retrieved from <https://periodicos.ufpb.br/ojs2/index.php/tpa/article/view/25211>
- Gaspardo, M. (2018). Democracia participativa e experimentalismo democrático em tempos sombrios. *Estudos Avançados*, 32(92), 65–88. <https://doi.org/10.5935/0103-4014.20180006>
- Kerstenetzky, C. L. (2003). Sobre associativismo, desigualdades e democracia. *Revista Brasileira de Ciências Sociais*, 18(53), 131–142. <https://doi.org/10.1590/S0102-69092003000300008>
- Lavalle, A. G. (2011). Após a participação: Nota introdutória. *Lua Nova: Revista de Cultura e Política*, (84), 13–23. <https://doi.org/10.1590/S0102-64452011000300002>
- Lavalle, A. G., & Vera, E. I. (2011). A trama da crítica democrática: Da participação à representação e à accountability. *Lua Nova: Revista de Cultura e Política*, (84), 95–139. <https://doi.org/10.1590/S0102-64452011000300005>
- Leite Filho, G. A. (2008). Padrões de produtividade de autores em periódicos e congressos na área de contabilidade no Brasil: Um estudo bibliométrico. *Revista de Administração Contemporânea*, 12(2), 533–554. <https://doi.org/10.1590/S1415-65552008000200011>
- Neves, E. G. (2006). *Arqueologia da Amazônia*. Rio de Janeiro: Jorge Zahar.
- Olson, M. (2015). *A lógica da ação coletiva: Os benefícios públicos e uma teoria dos grupos sociais*. São Paulo: Edusp.
- Patsias, C., Latendresse, A., & Bherer, L. (2013). Participatory democracy, decentralization and local governance: The montreal participatory budget in the light of 'empowered participatory governance'. *International Journal of Urban and Regional Research*, 37(6), 2214–2230. <https://doi.org/10.1111/IJ.1468-2427.2012.01171.X>
- Pereira, B. E., & Diegues, A. C. (2010). Conhecimento de populações tradicionais como possibilidade de conservação da natureza: Uma reflexão sobre a perspectiva da etnoconservação. *Desenvolvimento e Meio Ambiente*, 22, 37–50. <https://doi.org/10.5380/dma.v22i0.16054>
- Prado, D., Araujo, L., Chamy, P., Dias, A., & Seixas, C. (2020). Participação social nos conselhos gestores de unidades de conservação: Avanços normativos e a visão de agentes do ICMBio. *Ambiente & Sociedade*, 23, e00362. <https://doi.org/10.1590/1809-4422asoc20180036r2vu202015ao>
- Rosenstone, S. J., & Hansen, J. M. (1993). *Mobilization, participation, and democracy in America*. London: Longman Publishing Group.
- Santilli, J. (2005). *Socioambientalismo e novos direitos: Proteção jurídica a diversidade biológica e cultural*. São Paulo: Editora Peirópolis.
- Sattler, C., Schröter, B., Jericó-Daminello, C., Sessin-Dilascio, K., Meyer, C., Matzdorf, B., Wortmann, L., Sinisgalli, P. A. D. A., Meyer, A., & Giersch, G. (2015). Understanding governance structures in community management of ecosystems and natural resources: The Marujá case study in Brazil. *Ecosystem Services*, 16, 182–191. <https://doi.org/10.1016/j.ecoser.2015.10.015>
- Schlozman, K. L., Verba, S., & Brady, H. E. (2012). *The unheavenly chorus: Unequal political voice and the broken promise of american democracy*. Princeton, NJ: Princeton University Press.
- Schröter, B., Sessin-Dilascio, K., Jericó-Daminello, C., & Sattler, C. (2018). De espectadores impotentes a cogestores adaptativos: Uma comunidade no Parque Estadual da Ilha do Cardoso (Cananeia, São Paulo, Brasil). *Revista Brasileira de Gestão Ambiental e Sustentabilidade*, 5(9), 329–347. <https://doi.org/10.21438/rbgas.050922>
- Schröter, B., Sessin-Dilascio, K., Meyer, C., Matzdorf, B., Sattler, C., Meyer, A., Giersch, G., Jericó-Daminello, C., & Wortmann, L. (2014). Multi-level governance through adaptive co-management: Conflict resolution in a Brazilian state park. *Ecological Processes*, 3(1), 6. <https://doi.org/10.1186/2192-1709-3-6>
- Sessin-Dilascio, K. (2014). *Cogestão adaptativa e capital social na gestão de unidades de conservação integrais brasileiras com comunidades: O estudo de caso do Parque Estadual da Ilha do Cardoso e da comunidade do Marujá* (Master thesis). Universidade de São Paulo, Instituto de Energia e Ambiente. <https://doi.org/10.11606/D.106.2014.tde-19012015-161740>
- Sessin-Dilascio, K., Prager, K., Irvine, K. N., & Sinisgalli, P. A. D. A. (2015). The dynamics of co-management and social capital in protected area management—The Cardoso Island State Park in Brazil. *World Development*, 67, 475–489. <https://doi.org/10.1016/j.worlddev.2014.11.004>
- Shepard, G. H., Jr., Clement, C. R., Lima, H., Santos, G. M., Moraes, C., & Neves, E. (2020). Ancient and traditional agriculture in South America: Tropical lowlands. *Oxford Research Encyclopedia of Environmental Science*. <https://doi.org/10.1093/acrefore/9780199389414.013.597>
- Silva, J., Emmendoerfer, M., & Cunha, N. (2020). Análise documental ilustrada em administração pública: Uma proposta operacional (re)aplicável. *Teoria e Prática em Administração*, 10(2), 23–41. <https://doi.org/10.21714/2238-104X2020v10i2-51394>
- Vello, B. G. (2018). *Inovação democrática e desconfiança: O controle das políticas públicas nos conselhos* (Master thesis). Universidade de São Paulo, Faculdade de Filosofia, Letras e Ciências Humanas, São Paulo, Brazil. <https://doi.org/10.11606/D.8.2018.tde-10072018-155747>
- Verba, S., Schlozman, K. L., & Brady, H. E. (1995). *Voice and equality: Civic voluntarism in American politics*. Cambridge, MA: Harvard University Press.
- Weiss, J. S. (2019). *Movimentos socioambientais: Lutas, conquistas, avanços, retrocessos, esperanças* (1 ed.). Formosa, GO, Brazil: Editora Xapuri Socioambiental.

## Authorship

### Karla Sessin Dilascio\*

Universidade de São Paulo, Instituto de Energia e Ambiente, Programa de Pós-Graduação em Ciência Ambiental  
Av. Professor Luciano Gualberto, n. 1289, Butantã, 05508-010, São Paulo, SP, Brazil

E-mail: karla.dilascio@usp.br

 <https://orcid.org/0000-0002-3799-0568>

### Charles Borges Rossi

Universidade Federal do Acre  
Rua Estrada da Canela Fina, KM 12 Gleba Formoso, São Francisco, 69895-000, Cruzeiro do Sul, AC, Brazil

E-mail: charles.rossi@ufac.br

 <https://orcid.org/0000-0001-6811-0116>

### Paulo Antônio de Almeida Sinisgalli

Universidade de São Paulo, Escola de Artes, Ciências e Humanidades  
Av. Professor Luciano Gualberto, n. 1289, Butantã, 05508-010, São Paulo, SP, Brazil

E-mail: psinisgalli@usp.br

 <https://orcid.org/0000-0001-7822-3499>

\* Corresponding Author

## Funding

The authors thank the European Commission, Seventh Framework Programme, FP7 International Cooperation (#282750) for the financial support for the research in this article.

## Conflict of Interests

The authors have stated that there is no conflict of interest.

## Plagiarism Check

The RAC maintains the practice of submitting all documents approved for publication to the plagiarism check, using specific tools, e.g.: iThenticate.

## Copyrights

RAC owns the copyright to this content.

## Authors' Contributions

**1<sup>st</sup> author:** conceptualization (lead); data curation (lead); formal analysis (lead); investigation (equal); methodology (lead); project administration (equal); validation (equal); writing – original draft (lead); writing – review & editing (lead).

**2<sup>nd</sup> author:** formal analysis (equal); methodology (supporting); supervision (equal); validation (equal); writing – review & editing (equal).

**3<sup>rd</sup> author:** formal analysis (equal); funding acquisition (lead); investigation (equal); methodology (equal); project administration (lead); resources (lead); supervision (lead); validation (equal); writing – review & editing (equal).

## Peer Review Method

This content was evaluated using the double-blind peer review process. The disclosure of the reviewers' information on the first page, as well as the Peer Review Report, is made only after concluding the evaluation process, and with the voluntary consent of the respective reviewers and authors.

## Data Availability

The authors claim that all data used in the research have been made publicly available through the Harvard Dataverse platform and can be accessed at:



Dilascio, Karla Sessin; Rossi, Charles Borges; Sinisgalli, Paulo Antônio de Almeida, 2022, "Replication Data for: "Technique for Social Participation Analysis in Councils: Concept's Operationalization" published by RAC-Revista de Administração Contemporânea", Harvard Dataverse, V1.

<https://doi.org/10.7910/DVN/481AAI>

RAC encourages data sharing but, in compliance with ethical principles, it does not demand the disclosure of any means of identifying research subjects, preserving the privacy of research subjects. The practice of open data is to enable the reproducibility of results, and to ensure the unrestricted transparency of the results of the published research, without requiring the identity of research subjects.