

Bachelor Thesis

Citizen Participation in Post-Disaster Resilience Projects - The Cases of Roombeek and Hoboken

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Abstract

This thesis contains the analysis of the citizen participation processes of two post-disaster resilience projects, one in the Netherlands and one in the United States of America. It is hypothesized that a higher degree of citizen participation will lead to a higher effectiveness of the citizen participation process. The contexts of both participation projects were researched thoroughly regarding their organisational structure, development over time, and key decision points. By using historic data and data from interviews and surveys among key informants from both projects, several suspected barriers to an effective citizen participation process were analyzed. The findings are that of the hypothesized variables moderating the relationship between degree of citizen involvement and the effectiveness of the citizen participation process only the knowledgeability of citizens regarding the process topics could be observed. However, in the qualitative study several other potential barriers to effective citizen participation could be drawn up and would require further research. The thesis concludes with lessons learned from the analysis about how to conduct an effective citizen participation process.

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1. General Introduction - Participatory Politics and Citizen Participation

The living together of people requires collective decision-making. This is as true for the earliest human communities as it is for a family, a nation state or the European Union (EU). How the process of collective decision-making is structured, however, greatly depends on a large number of variables such as community size, values, technological development, and inequality. The various structures of decision-making processes and forms of government arising from these structures need to be legitimized within the community in which they are applied. In his work *Wirtschaft und Gesellschaft*, Max Weber (1921) differentiates between three types of legitimization of government: traditional, charismatic, and rational-legal legitimacy. An example for traditional legitimacy of government is the House of Saud, the reigning dynasty of Saudi-Arabia which has been hereditarily ruling the country since the 18th century. Charismatic legitimacy can be ascribed to demagogic dictators like Adolf Hitler and Benito Mussolini as well as to revolutionaries like Ernesto "Che" Guevara and Mahatma Mohandas Gandhi. Rational-legal legitimacy is the type of legitimacy most commonly displayed by democracies of various kinds. Government may also rely on mixed types of legitimacy such as the government of the United Kingdom in which the monarch still holds some formal powers or that of Canada which (apart from the Queen as traditionally legitimized monarch) could invoke high charismatic legitimacy of its recently elected Prime Minister Justin Trudeau.

Focussing on the legitimacy of government in western democracies, Fritz Scharpf (1970) coined the concepts of input legitimacy and output legitimacy. While the former describes the responsiveness of government to the preferences of the governed, the latter describes the effectiveness of government policies in solving problems of the governed (Scharpf, 2003). Especially in the research on EU decision-making, the concept of throughput legitimacy - describing governance processes between political input and policy output - has been established by Vivien Schmidt. She identifies efficacy, accountability, inclusiveness, transparency, and openness to interest consultation as constituents of the throughput legitimacy of government processes (Schmidt, 2012).

While input, throughput, and output legitimacy of decision-making are thus key objectives of democratic government, the mechanisms through which legitimacy is tried to be achieved can vary. Regarding input legitimacy, representative democracies rely on free and fair elections to determine a number of representatives who are delegated the competence to take decisions on the behalf of society as a whole. Output legitimacy can be increased by informing citizens about policies, promoting policy outcomes, and by taking the credit for positive outcomes. Currently, many western democracies are struggling with political apathy, frequently paired with anti-establishment sentiments or even radicalist movements. While these may be caused in detail by more country-specific problems, one often-voiced complaint is dissatisfaction with government processes and transparency, causing mistrust in political structures and institutions. One can summarize that - especially regarding important and controversial issues - citizens are not anymore satisfied with mere participation through democratic elections. A high degree of input legitimacy is increasingly ineffective in making up for low throughput legitimacy. There has been much research on the democratic deficit of the EU concerning all types of legitimacy. Measures taken to improve throughput legitimacy include increasing transparency of policy processes e.g. by requiring information of the European Parliament about more issues. Furthermore, the European Commission made an effort to also allow for influence on the policy process from previously underrepresented interests that could not afford lobbying (Kröger, 2008).

The problem of mistrust in political institutions however is faced by all levels of government to a varying degree. The argument can even be made that among smaller jurisdictions the degree of trust in government is likely to be more extreme and polarizing, due to a smaller number of citizens and higher demographic differences between smaller jurisdictions. Certainly, government will never be able to satisfy all demands of citizens and neither is that its goal. Unpopular decisions will always have to be taken and might go hand in hand with a loss of trust by at least parts of the citizenry. Such is the nature of democratic governance and the existence of these limitations do not constitute a threat to democracy but rather a proof for it.

Especially in these jurisdictions, situations with high pressure on democratic structures - such as disasters - have the capacity to undermine democratic principles. in which a significant drop in public trust in government has the capacity to undermine democratic principles. Of course, the exact cases for which this is true can only be determined via a normative argument hence there may be contradicting subjective assessments. However, the, the more effort is needed to uphold democratic principles. The effort to maintain effective democratic governance under pressure is certainly easier to make when there is broad backing from the citizenry. An examples for high pressure on democratic structures can be the occurrence of disasters - both from natural and manmade hazards. Such events Disasters affecting small jurisdictions thus call for measures that raise throughput legitimacy and restore citizen support for government policies - especially for those projects dealing with the aftermath of the disaster.

There is a broad body of literature advocating citizen participation in these large public construction projects. It has been found to positively affect the participants' civic competence, their civic virtues, and their sense of community (Pateman, 1970; Mansbridge, 1999; Berry et al., 1993; Fung, 2004). Verba et al. (1995) identified citizen participation as a prerequisite for a system's responsiveness to citizen's concerns, while Fung (2004) found decisive advantages of citizen participation vis-a-vis bureaucratic or market solutions regarding education and public safety issues in the urban context. However, when determining the effectiveness of a citizen participation process, previous literature does not provide a unanimous answer. Arnstein's (1969) "ladder of participation" categorizes participation depending on the citizen's influence and implies a normative argument for higher degrees of participation. Still, it does not provide means for measurement. The "split ladder of participation" (Hurlbert & Gupta, 2015) expands on this and includes structuredness of the problem and trust in the administration, mainly serving as a help to better understand a project and analyze its characteristics not to determine criteria for assessing effectiveness. Another approach taken by several researchers is to start with the people involved in citizen participation projects. Rosener (1978) concludes that effectiveness can essentially not be measured if citizens and public officials do not agree about its objectives since in that case there would be two different concepts of effectiveness. Berner et al. (2011) even

went a step further and asked citizens, civil servants, and elected officials about their opinion on what constitutes effective citizen participation - resulting in the observation that the concept of citizen participation was understood totally differently by each group. The authors could however identify several key obstacles to higher degrees of citizen participation: high technicality of the project, low degree of information about the project among participating citizens, and unethical behavior by the project team. King et al. (1998) identify several barriers to effective citizen participation and even objectives regarding how to overcome them. However they work from the assumption that citizen participation is the right choice independent of context - a notion Berner et al. (2011) do not share.

We thus face the question whether a higher degree of citizen participation in a post-disaster resilience project will lead to a higher effectiveness of the citizen participation process and thereby lead to restored throughput legitimacy and the maintenance of democratic principles in a context under pressure. Independent of whether this relationship can be observed or not, it will be an important addition to describe the barriers which did or could have prevented an effective citizen participation process from being executed.

2. Case Selection and Scientific and Societal Relevance of the Research

The cases selected for this research are two citizen participation processes, one in Roombeek - a neighborhood of the Dutch town of Enschede, and one in Hoboken, New Jersey, a city in the United States of America.

On 13 May 2000, a fireworks factory exploded in the north of Enschede and destroyed large parts of the Roombeek neighborhood, killing 23 people and injuring 947. The biggest blast had a strength equivalent to 4000-5000 kg TNT (Bedford & van Gelder, 2003). In the time following the disaster, the municipality faced several challenges in rebuilding the neighborhood and coordinating the (former) citizens' interests. In addition to insurance money, the Dutch Central Government granted € 270 M. to the municipality immediately following the disaster. The municipality created the Project Bureau Reconstruction (*Projectbureau Wederopbouw*) and

appointed Joop Hofman as Program Manager Roombeek. A citizen participation process was conducted which provided input for - and later comments on - a reconstruction plan for the area. At the end of the process, on 19 November 2001, citizens voted on the plan with an overwhelming majority in favor. The plan was then voted into law by the City Council and has been implemented in the following years.

In the end of October 2012, Hurricane Sandy hit the North American east coast, affecting 24 states of the USA with particular damage to the New York City Metropolitan Area. With total damages amounting to more than \$ 75 billion it was the second costliest hurricane on record. 80% of the City of Hoboken, New Jersey, was flooded during the storm and most of the city was cut off the power grid for about a week. The sewerage system could not handle the quantity of stormwater and unfiltered sewage had to be drained into the Hudson River. Supermarkets and gas stations ran out of supplies and transport was interrupted. Following the disaster, President Obama signed an executive order granting funding for resilience projects to the affected communities. The Department of Housing and Urban Development (HUD) - with the backing of the Rockefeller Foundation - initiated the Rebuild By Design competition in which several design teams developed suggestions for resilience projects in different parts of the affected region. One of the winning design proposals was “Resist, Delay, Store, Discharge - a comprehensive strategy for Hoboken”, subsequently renamed to Hudson River Project. Proposed by a design team led by the Office of Metropolitan Architecture (OMA), it was one of the six winning proposals which were granted funding by HUD in June 2014. After the competition, the New Jersey Department of Environmental Protection (NJDEP) formed a project team which - in coordination with the Mayors’ Offices of Hoboken, Weehawken, and Jersey City organizes the implementation phase. Citizen Advisory Groups (CAGs) were formed to represent citizen interests in the process. Six citizen meetings and 1.5 years after the competition, in December 2015, the project team presented five design concepts for implementation which - following more intensive public discourse - were narrowed down to three implementation alternatives in February 2016. In April 2017 the final implementation alternative is due to be selected.

These two cases were selected for research on various grounds: certainly, they represent cases of convenience since barriers to observing data are not unsurmountable and contact to interviewees regarding the respective reconstruction project could be established by professors from the University of Twente and Stevens Institute of Technology. However, convenience is not the only reason which makes Roombeek and Hoboken suitable for this research. These are two special cases implementing “experimental strategies” allowing for the analysis of phenomena that are crucial about citizen participation. Both Roombeek and Hoboken are neighborhoods were affected by a disaster to a very high degree which means that the stress put on the projects following the disasters was especially high such high levels of affectedness among the citizens are . Roombeek is a very special case since it constitutes both an extreme case and an example for a case with best practices. Lost trust in public officials was turned into outright support for the design by utilizing an effective citizen participation process. Even when conducting a participation process outside of the context of a post-disaster resilience project, knowledge about the Roombeek approach could possibly improve effectiveness. Additionally, there is high demand for knowledge on how to implement citizen participation effectively since its usage as a measure to achieve high output legitimacy for a certain policy is increasing. This demand coupled with the rarity of such textbook examples in established democracies make the selection of Roombeek a hardly debatable one.

The RBD Hoboken project is ongoing and is therefore not meant to be studied in its entirety. In addition to the already mentioned high degree of convenience, its selection fits various criteria beneficial for the research’s purpose. First of all, the project is still ongoing which enables findings from the research in Roombeek to possibly inform administrators and to influence and improve the effectiveness of the participation process. Conducting this research with an unfinished counterpart to the exemplary case thus proves superior to choosing an already finished process and researching what could have been done better since it removes the subjunctive from the design. Moreover, there are several contextual similarities between Roombeek and Hoboken allowing for a certain degree of translatability of findings. Examples for these contextual similarities are democratic structures, established forms of administration, the fact that the occurrence of a disaster is used as an opportunity to improve quality of life, and that

both projects aim at a high level of citizen participation. A full contextual comparison of the projects can be found in section 5.2 (Hoboken Context and Contextual Comparison).

The purpose of this research is to show whether or not certain barriers to effective citizen participation were (or are still) present in the Roombeek and Hoboken post-disaster resilience projects and if yes how they were overcome (or not). A post-disaster resilience project - at least one in a democratic country - can be seen as a very favourable context for a high degree of citizen participation: citizens are directly affected by both the disaster and the project itself, elected officials are likely to have lost popularity and thus more likely to agree to processes outside the usual structures of policy making in order to rebuild trust, and for the same reason the administration is more likely to behave **in an open and ethical way when** carrying out the project. This research thus has the capacity to display in detail how in contexts requiring effective citizen participation typical barriers have been addressed.

3. Theory and Hypotheses

The theoretical framework of this research needs to provide a methodology which allows a qualitative approach to identify mechanisms which can be applied to contexts outside of the study. Therefore, an important part of the theory used here is Pawson and Tilley's Realistic Evaluation (1997). They argue that:

“The basic task of social inquiry is to explain interesting, puzzling, socially significant regularities [...]. Explanation takes the form of positing some underlying mechanism [...] which generates the regularity and thus consists of propositions about how the interplay between structure and agency has constituted the regularity. Within realist investigation there is also investigation of how the workings of such mechanisms are contingent and conditional, and thus only fired in particular local, historical or institutional contexts [...].”

This research applies the concepts of Pawson and Tilley to the two contexts of formal measures of citizen participation in the Roombeek **and Hudson River resilience projects** respectively. The theoretical framework further follows Berner et al. (2011) in that citizen participation should not be the measure of choice **independent of context. It rather argues that post-disaster resilience**

projects provide the perfect context for the implementation of citizen participation. Furthermore, their finding of a discrepancy between the objectives of elected officials and citizens regarding citizen participation are combined with the findings of Carlin et al. (2014) who found in a study in Chile that even natural disasters cause low trust in elected officials - at least in less developed countries. The argument is that in a low-trust post-disaster environment elected officials are more likely to be swayed in their assessment of citizen participation since they regard it as a tool to rebuild trust. Following this goal, the possibility of unethical behavior by the administration also seems unlikely in the given context. Moreover, other barriers to effective citizen participation - such as the realities of daily life - seem less unsurmountable due to the very high importance of the issues at stake. The choice of cases in developed countries also in theory diminishes barriers arising from the inability to inform citizens and from an incapable administration. **While thus citizen participation may be impossible and unfeasible in many contexts, the argument here is that a post-disaster resilience project offers the context with the least barriers in order to implement a high degree of citizen participation with a high degree of process effectiveness.**

The full causal model of the research can be seen below:

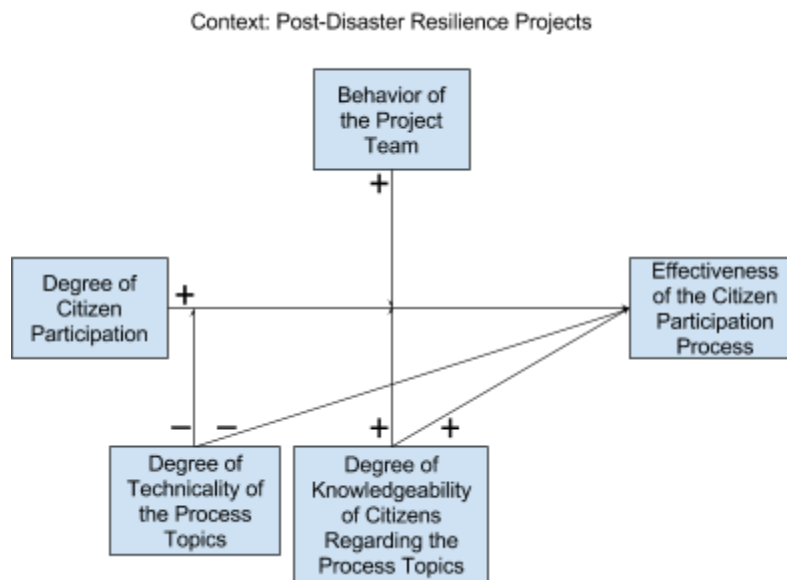


Figure [1]: Causal model of the research

The main hypothesis, supported by the above mentioned theory and displayed in the causal model, is:

H1: A post-disaster resilience project with a high degree of citizen participation will lead to a more effective citizen participation process.

The potential barriers to effective participation **relevant in the context of a post-disaster resilience project** are hypothesised to have a moderating effect on the main relationship. Thus, each of the three moderating variables could nullify the main relationship or even turn it negative. The moderating hypotheses are as follows:

H2: A high degree of citizen participation in a post-disaster resilience project will only lead to a more effective citizen participation process when:

- a. the project team is displaying open and ethical behavior.
- b. the degree of technicality of the project is low.
- c. the knowledgeability of participating citizens regarding the project is high.

Moreover, theory supports all three of these variables to also directly influence the effectiveness of citizen participation (Berner et al., 2011; Wang & Wart, 2007) resulting in another (threefold) hypothesis:

H3: The citizen participation process in a post-disaster resilience project will be more effective when

- a. The project team is displaying open and ethical behavior
- b. the degree of technicality of the project is low.
- c. the knowledgeability of participating citizens regarding the project is high.

4. Research Question and Subquestions

What were barriers to the effectiveness of formal measures of citizen participation in the Roombeek and Hudson River post-disaster resilience projects, how and with what result were they addressed and what lessons can be drawn for the ongoing Hudson River Project?

Subquestions:

- What were the formal measures of citizen participation in the Roombeek and Hudson River resilience projects?
- What barriers prevented a more effective citizen participation process in these projects?
- How does the context of the Hudson River Project differ from the Roombeek context and what is the effect of these contextual differences on the barriers present or absent from the context? influencing the degree of effectiveness of formal measures of citizen participation?
- In case (partial) comparability can be established, how did the contextual commonalities influence the effectiveness of formal citizen participation measures and what is thus their estimated effect on that variable in the context of the Hudson ?
- What lessons can public administrators implementing citizen participation processes of post-disaster resilience projects in other contexts draw from the analysis of these two contexts and the barriers and mechanisms observed?

5. Methodology, Operationalization, Research Design

Methodology and Operationalization

Following Arnstein's "ladder of participation" (1969), the degree of participation was established through historical data. His ladder All other variables were investigated by the means of ratings and in-depth interviews by involved agents. Agents involved in the citizen participation process are the participating citizens themselves, civil servants, and elected officials. The degree of technicality of the process was measured by letting agents rate the individual topics that were discussed over the course of the process according to their technical complexity and computing an average value. The knowledgeability of participating citizens regarding the project was measured in the same way: agent representatives rated the knowledgeability of citizens regarding the individual topics discussed and the average score was calculated. The rating scale used for measuring the specific items is a six-point Likert scale. The advantage of using a six-point Likert

scale is the possibility of analysing the result by splitting the answers either in two (high/low) or in three (high/middle/low) categories, forcing a decision for one side while maintaining three options for intensity on each side. For measuring the ~~ethical~~ behavior of the project team, criteria drawn from King et al. (1998) were used. All respondents were thus asked to rate on a six-point Likert scale

- the focus of the project team on the project
- the trust citizens had/have in the project team
- the openness and honesty of the discussion with the project team
- the timeliness of citizen involvement
- the existence of discussion on an equal footing between the project team and the participating citizens.

Here, the same approach was used for both Roombeek and Hoboken. Though not part of the causal model and theoretical framework, data on disputation of the process was collected in order to allow for a more coherent understanding of the participation processes and to support or invalidate lines of reasoning.

The effectiveness of the Roombeek citizen participation process is defined as the degree to which the agents involved deem it effective (Rosener, 1978). In order to measure this, agency representatives were interviewed qualitatively. These interviews were conducted in an in-depth, semi-structured way to allow for deeper and more case-specific enquiry. The full list of interviewees is accessible in Appendix I. The data retrieved from the interviews was backed up with and checked against factual data from historic documents such as various documents from the Roombeek archive of former program manager Joop Hofman and documents published online by the Office of Flood Hazard Risk Reduction Measures of NJDEP. The *context* of a case is defined as the structure and agency related to the post-disaster citizen participation process in Roombeek and Hoboken respectively. The *agency* can be roughly separated into three groups - activists (citizens participating in the participation process), elected officials (also referred to as policy makers or politicians, in both of the researched cases mainly active on the municipal

level), and civil servants (at least for the Roombeek case there was a high differentiation between the main process facilitators in the administration and politicians).

Context plays a very important role in case study research, which is why data collected from interviews is combined with historical data from archives and publications regarding the context of the citizen participation process. In the Roombeek case, once the context had been established, data regarding the research question and the hypotheses could be collected and analyzed in the light of its context. This process was not repeated in Hoboken in exactly the same way. Here, another phase falls between context analysis and the core of the research. Before moving on to the Hoboken research, there is need for a context comparison between Roombeek and Hoboken, in order to determine what contextual features are similar enough between the two contexts in order to justify the “import” of the theoretical framework.

Research Design

Following the conceptual work of Yin (2008) on case study design, the research design can be described as neither a classic holistic single-case design nor as a holistic multiple-case design. The most fitting description would likely be a holistic single-case design with the addition of a partial holistic multiple-case design. The design does not qualify as exclusively holistic single-case design since the results from the analysis of the Roombeek case are compared to the participation process in Hoboken. However, it is problematic to regard the ongoing process in Hoboken as a case itself since it is still ongoing and thus cannot be researched (and compared) in the same way that the Roombeek Project can. The comparison is thus rather one-sided and does not qualify for the label of multiple-case design in the narrow sense either.

6. Case and Context Descriptions

6.1. Roombeek Context

The insights mainly derived from the interviews with two former program managers of the Roombeek Project allow for a detailed picture of the context in which the citizen participation

process was conducted to be painted. The disaster itself was perceived as a shock not only by the affected citizens or the residents of Enschede but throughout the Netherlands. Many questions were asked regarding the causes and responsibility for the disaster and citizens were outraged that such thing could have happened. Blame was put on the elected officials in the municipality and many citizens lost confidence in their ability to handle the consequences of the disaster for which they were blamed. With respect to the task of rebuilding Roombeek, this situation was recognized by the Mayor and City Council. Therefore, the Project Bureau Reconstruction was created and Joop Hofman who was not part of the administration before but rather worked for a private company conducting citizen participation processes was appointed as program manager for Roombeek. Even though the officials recognized the urgency to act differently due to their lack of credibility among the people, they were struggling to do so and thereby shed competences and responsibility, effectively disempowering themselves, and leaving more powers with the civil servants in the Project Bureau and with the citizens themselves. In the beginning of the process, there was a plan from the side of the City Council to start the participation process with a draft reconstruction plan which was to be designed by the project team in co-operation with the council. This was however met with strong opposition from the side of the project team stating that politicians should stay in the background during the process since their presence and visibility could jeopardize both the attempts to regain the citizens' trust and the effectiveness of the participation process as a whole. Also, starting the process with a ready-to-go design was resented by the project team as too patronizing a behavior since the people of the Twente region had always been rather sceptical regarding top-down policies and the disaster had only reinforced this scepticism. Describing the question regarding the right approach to the participation process as a power struggle between the project team and the politicians would probably be a step too far. Yet its outcome was a "win" by the participation experts and the decision by the City Council to only guide the process from an observant position.

Before the start of the actual participation process, the project team offered citizens to meet them at their homes to discuss the disaster and the subsequent plans for reconstruction. Joop Hofman

described this process as more of a counseling exercise than as a city planning activity. Many people were still more in need of contact to pronounce their sadness, anger, and distress caused by the explosion than they needed a city planner taking note of their design suggestions. These early discussions broadcast very clearly that the disaster had had a profound impact on many residents and that the reconstruction policy was clearly not a mere technical matter to many of them but rather entangled with crucial social, emotional and community-related aspects. While the project team were clearly able to console many citizens, these ex ante meetings had less content-wise capacity to impact the reconstruction plan. This might have been the reason why the point in time at which citizens were involved in the process was rated as too early.

The more formal participation process was - following the described deliberations between project team and politicians - initiated without any design on the table and only with a list of about 80 topics on which citizens were asked for input. On top of that, they were free to address any other issues they might have seen fit. Yet, the project team immediately managed expectations stating that while everyone should get the opportunity to state their opinion it would already be a great success if 50 percent of the suggestions could be implemented in the final design. In a remarkable way, the team coupled this more negative note with the statement that since the elected officials were not involved in the process this would give the citizens the opportunity to show their ability in cooperation and design to create a new, high-quality neighborhood. By using “the politicians” as some sort of enemy image the project team was able to create a more positive atmosphere between them and the citizens and also between the citizens themselves, even to the point that new friendships and a greater sense of neighborhood developed. In this context it is important to remark that before the explosion Roombeek had not been a neighborhood at all. It was part of the administrative section Enschede-Noord and was a very heterogenous neighborhood. Joop Hofman described this non-existent concept of Roombeek as a community as one of the first lessons the project team learned. He would also not agree to the statement that Roombeek is a homogenous entity now - nor that it was meant to be.

Whereas information about the process and its goals were given prior to conducting it, there was no specific or formal agreement on objectives of the process. Mr Hofman rather stated that the goals of the project team were rather communicated informally and not consistently at the beginning of the process and that they evolved over the course of the process.

The people were given a choice when deciding on the lead architect to give input on technical matters and regulatory issues of the design and implementation. They ultimately agreed on Pi de Bruin, a well-known architect who was born in a village adjacent to Enschede. The meetings with the citizens also included sessions for special groups of the citizenry, namely for the artists of the area, local businessmen, men of Moroccan heritage, women of Moroccan heritage, men of Turkish heritage, women of Turkish heritage, the elderly, and young people. In these meetings the special preferences, concerns and ideas of the particular groups were discussed and noted. Furthermore, a school project was started in which students could “design” their perfect neighborhood. This was done both to generate input but also to increase outreach to the pupils’ parents.

The main point of the project team’s information strategy was that as many people as possible and most importantly as many residents as possible should be aware of the project and of the opportunity to participate. Not only did the team distribute information flyers and meeting invitations in Enschede, they also worked to locate the residences of people that were displaced by the explosion - at times going as far as collaborating with the police department to find the people’s new location. The result of this extensive measure was high attendance in the public meetings.

After the project team had gathered citizens’ input they worked to create a draft reconstruction plan which was then fed back to the people for comments and criticism. In this second phase of participation there were no special meetings, only general ones during which there were already pre-votes on particular issues of the design. The responses were mixed, depending on the issue. It also needs to be pointed out that the same meeting would be held multiple times during a week to

allow as many people as possible to attend and state their position on the plan. After the project team had made some adjustments to the plan according to the public feedback, it was presented to the people in a final meeting during which the citizens voted in favor of the plan with only 4 votes against.

6.2. Hoboken Context and Comparison of the two Contexts

Already during the competition phase of Rebuild By Design, the OMA Team got into informal contact with citizens while collecting impressions, informing about, and advertising their design proposal. However, at that stage it was not clear yet whether the project would ever be implemented so more formal measures of citizen participation would not have had the backing of political and financial certainty. After the competition had been won in June 2014 there was a period of adaptation during which all sorts of organizations had to find their place in the implementation process. Within the NJDEP the Office of Flood Hazard Risk Reduction Measures (OFHRRM) had already been created by Governor Chris Christie on 25 September 2013. Since HUD put NJDEP formally in charge of implementation this Office now took the lead in furthering the project. The mayors of Hoboken and Weehawken had from the start been vocal supporters of the Hudson River Project and were now (together with the Mayor of Jersey City) put in charge of all kinds of organizational tasks relating to the project such as hosting and chairing the CAG meetings. Since the Hudson River Project by law is required to follow rather strict rules regarding implementation, information, and participation, the project team did not have as much leeway for “purpose-built solutions” as was the case in Roombeek. The CAGs had their first meeting on 6 August 2015 (OFHRRM, 2016). Six citizen meetings and 1.5 years after the RBD competition had ended, in December 2015, the project team presented five design concepts which caused a major public outcry. Citizens had not been well informed about the process that had been going on for almost four months at that time and especially those with waterfront access were concerned that the flood protection measures could decrease both their property value and their standard of living. This event forced the City of Hoboken to schedule a CAG meeting on short notice which was described by one interviewee as a “pitchfork meeting” - citizens were furious, strongly voiced their anger, and demanded explanation. Subsequently, the

project team put a much bigger focus on how they communicated project updates to the citizens. A side effect of this outcry was a sudden boost in information about the project spreading to citizens that had previously not been reached by any news about it. In February 2016, following intensive public discourse, the five design concepts were narrowed down to three implementation alternatives and the final implementation alternative is expected to be selected in April 2017.

Contextually, the citizen participation process in the Hudson River Project displays many dissimilarities with Roombeek. Hoboken is located outside of the Netherlands and in fact outside of Europe and therefore faces many different regulations, cultures and practices. Situated just across the Hudson River from New York City, it is part of one of the largest metropolitan areas of the world, therefore being far more included in regional politics. Hoboken as compared to Roombeek is a city by itself and therefore carries many administrative features Roombeek lacks, such as a mayor. Also the residents are of a different demographic. People from Twente (called Tukkers) are known for “regional patriotism”, general skepticism regarding influence from the outside and innovative approaches to problems, which were also features present in the Roombeek process. The (former) residents were of below-average wealth and there was a high degree of Moroccan and Turkish immigrants. Hoboken however is an affluent suburb of New York City with skyrocketing housing prices (median listing price above \$ 600 000, Trulia, 2016) and therefore a rather wealthy citizenry. Ethnically, the city has a caucasian majority of with only 3.5 percent African American and a remarkable 7 percent Asian population (U.S. Census Bureau, 2010).

Superstorm Sandy certainly also differs from the explosion in Roombeek to some extent - even though this was an often-debated topic during the research. The argument that the fireworks explosion was man-made and that in contrast to this Sandy is a natural disaster. The UNISDR (2009) defines a disaster as “*a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources*” and

classifies all disasters as man-made but differentiates between natural and man-made **hazards** that in turn cause disasters. A hazard in that regard is defined as “[a] *dangerous phenomenon, [...] that may cause [...] health impacts, [...] loss of livelihoods and services, social and economic disruption, or environmental damage*”. Hence, in both contexts the communities faced a disaster caused by a hazard. Arguably, the point in which they differ is the **risk** attached to the hazard. Risk is defined by the as “*the combination of the **probability of an event and its negative consequences***” (UNISDR, 2007). Whereas both disasters had devastating negative consequences, the likelihood of a fireworks explosion was considered as very low immediately before and also immediately after the disaster in Roombeek. Due to its weather- and climate-related nature, the risk of a superstorm in Hoboken can be quantified more precisely in a scientific way. The city had been exposed to flooding before Sandy and also afterwards there have been rain events leading to flooding (hMAG, 2016). In Roombeek, the fireworks storage has not been rebuilt and another one has been converted into an archive (Haarman Vuurwerk, n.d.) therefore the risk of recurrence appears very low. Certainly, both projects were designed and implemented with slightly different thoughts in mind: the Hudson River Project aims at achieving a design which will mitigate the effect of a future superstorm. The Roombeek Project did not focus on resilience vis-a-vis a future fireworks explosion.

However, in both contexts the emphasis was placed on the objective that the design should increase the quality of life in the city / neighborhood. The previously deprived Roombeek is now even used as a figurehead for the whole city of Enschede. Another similarity between Roombeek and Hoboken are the profound impacts of the disaster on both communities. For Roombeek this impact could even be described as a trauma for many residents, which became apparent to the project team during the early on meetings “at the kitchen table”. The focus of both project teams on highly valuing public information, input, and consultation over the course of the project has become very apparent in all interviews conducted, irrespective of the case. Concerning Hoboken, this was also repeatedly expressed by Mayor Dawn Zimmer, inter alia at the RBD conference on 03. June 2016. In both cases, there was/is furthermore a clear urgency to act which is inherent to post-disaster projects. In Roombeek, this urgency was manifested by the destroyed neighborhood

while for Hoboken it is not so much the damage caused by Sandy but rather the looming threat of another flood event.

7. Data Analysis

To support the analysis of the factual data regarding formal measures of citizen participation in the Roombeek Project and in the Hudson River Project, Figures 1 and 2 have been created. The timeline displays different decision points over the two projects and the yellow boxes symbolize formal measures of citizen participation as they occurred over time. The darker the shade of yellow of a box, the more power the citizens had in the particular participation measure displayed. The categories for the degree of citizen participation were derived from Arnstein (1969) however they were fitted for the purpose of the visualization. Since in both contexts there is no outright *citizen control*, this category has been excluded. Furthermore, the stages *manipulation* and *therapy* have been combined to form the category *no power* since the focus of the visualization is on the instances with higher degrees of citizen participation. A full-sized version of both visualizations can be found in Appendix II.

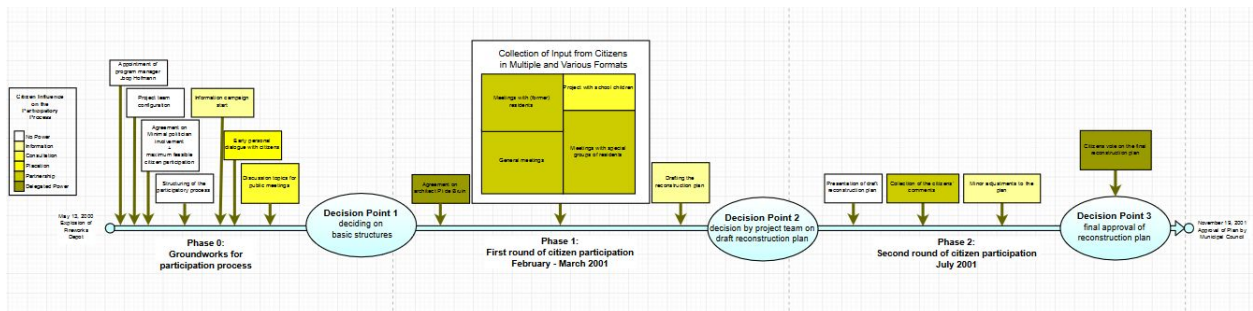


Figure [2]: Visualization Roombeek Citizen Participation Process

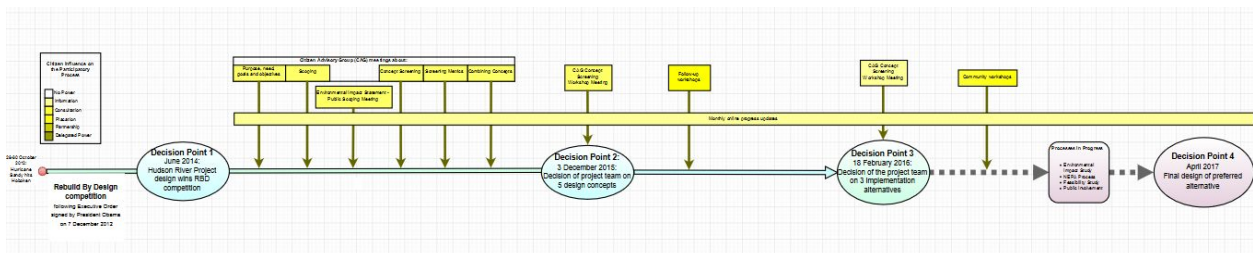


Figure [3]: Visualization Hudson River Project Citizen Participation Process

Degree of Citizen Participation

No matter in what way one wants to assess the degree of citizen participation in both projects, the Roombeek Project scores consistently higher. As visible in Figure 1, the Roombeek citizen participation process included far more formal measures of citizen participation giving the citizens a high degree of power while in the Hudson River process citizen participation measures are limited to lower degrees of power. However, not only does the higher “power peak” in Roombeek point to a higher degree of citizen participation, also the larger number of total formal measures of citizen participation in the Roombeek case leads to this assessment. Here it needs to be pointed out that in the visualization of the Roombeek project many meetings have been combined to form one single measure since visualizing every single meeting would have been impossible due to their vast number. However, for the Hudson River Project, all meetings have been visualized and still are smaller in quantity when compared to Roombeek. We can conclude that there was a higher degree of citizen participation in Roombeek both qualitatively and quantitatively.

Effectiveness of the Citizen Participation Process

As regards the effectiveness of the citizen participation process in the Hudson River Project, this research of course only has explanatory power up to the current state of affairs, hence the degree of overall effectiveness of that participation process is still very much undecided. The Roombeek citizen participation process can be ascribed a very high degree of effectiveness. Not only did all interviewees deem the process highly effective, also other objective criteria point to this. In their paper *Rebuilding Roombeek*, Denters & Klok (2010) came to the exact same conclusion. Mr Albert Haarman, a participating citizen, rated the degree of disputation of the process at 4.1 on a scale from 1 to 6 (62%). Nevertheless, the end result of the citizens’ vote on the reconstruction plan was an overwhelming majority in favor with only 4 votes against. This means that the citizen participation process was one of the policies that helped to develop from disputed issue an outcome that was accepted by nearly all. Therefore, we can safely state that the effectiveness of the citizen participation process in the Roombeek Project was high.

Carter Craft of the Citizen Advisory Group Hoboken rated the disputation of topics in the Hudson River citizen participation process at a below-average 3 on a scale from 1 to 6. However, it needs to be added that the project has faced several degrees of disputation over the last months. In the beginning of December 2015 there was public outcry over the publication of several design concepts. Citizens had not sufficiently been involved in the decision-making process leading up to the choice of concepts and were therefore concerned - and partly furious - over the possibility of blocked waterfront access and other negative impacts of the design. In various interviews it was stated that better information and communication with citizens could at least have mitigated the stark emotional outbursts. On the other hand, since then the discussion between citizens and the administration and design team has shifted to a more productive tone so that a decisive statement on the overall effectiveness of the ongoing participation process is impossible.

Moderating Variables

Carter Craft of the CAG Hoboken and both former program manager Joop Hofman and citizen representative Albert Haarman from Roombeek were willing to participate in a questionnaire regarding the hypothesised three moderating variables of the research - ethical behavior of the project team, technicality of the project, and knowledgeability of citizens regarding the process topics. For political reasons - since it is an ongoing process - a comment from a civil servant or elected official in Hoboken could not be obtained. However, Mr Craft's point of view is multifaceted as he is the Co-Chair of the CAG, works for RBD, and for the Consulate General of the Netherlands in New York City thereby giving himself as a citizen much closer contact to both the design and project team.

Both projects score almost equally with 4 on a scale from 1 to 6 regarding their technicality. Interestingly, the topics in Roombeek were perceived as more technical by the citizen representative as compared to the program manager (4.4 vs 3.7). The ethical behavior of the project team was rated highly in Roombeek with scores of 4.5 (citizen) and 5.375 (program manager). The Hudson River project team only scored a mediocre 3.5. Knowledgeability of

citizens is rated at a below-average 3 for the Hudson River Project. In the Roombeek project, the citizen assessed this value a bit higher (4.2) than the program manager (3.8) yet both outscore the project in Hoboken. The scores for disputation of the process are 4.1 for Roombeek and 3 for Hoboken.

The picture painted by this data is rather clear. The technicality of both projects was/is perceived as rather high however at least in Hoboken there is at least for now a clear gap between the technical (knowledge-)demands of the project and the actual knowledge of the citizenry. In Roombeek, this gap cannot be found. In addition, the Roombeek score on ethical behavior is remarkable, especially when also taking into consideration its higher disputation score. When putting both cases up against each other, one could formulate the following:

In Roombeek, a project team behaving highly ethically conducted a disputed participation process of above-average perceived technicality together with citizens of equally above-average knowledge regarding the process topics. In Hoboken, a project team behaving average ethically conducted a less disputed participation process of above-average perceived technicality together with citizens of below-average knowledgeability regarding the process topics.

8. Discussion

There are several mechanisms that were found to have an influence on the relationship between the degree of citizen participation and the effectiveness of the Roombeek Project. First of all, the funding for the project was granted immediately after the disaster by the central government leading to very little insecurity regarding the project's realizability. The organizational authority in charge of all policy relating to the Roombeek Project was the Project Bureau Reconstruction. It was incorporated into the administration of the municipality of Enschede but could mostly act as it saw fit. The Bureau was mainly accountable to the citizens themselves and not to a department in the city's administration. This means that the civil servants could take direct action

on pressing matters without needing to consult another authority and the citizens were directly and more closely linked to the key decision-makers on the administrative side of the process.

Regarding time constraints, there certainly was time pressure created by citizens and other authorities on the lead architect and the Project Bureau. However, the Bureau was not strictly bound to a certain timeframe but could rather flexibly adjust the process's schedule when necessary. Including citizens in the participation process before a certain design had been chosen furthermore lead to above-average knowledgeability of citizens regarding the project and decreased contentiousness ([cross reference to Marie Helen's Bachelor thesis](#)).

Even though citizens from the beginning had the opportunity to give input for the reconstruction plan, their expectations were actively managed by the project team. Lastly, both citizens and project team members in Roombeek ranked the ethical behavior of the project team very high (5.5 and 4.5 on a scale from 1 to 6 respectively). The project team was generally trusted by the citizens, it was focused on the project, it was (perceived as) open and honest, and it allowed for discussion on an equal footing. To summarize, the mechanisms enabling a high degree of citizen participation to cause a high degree of effectiveness of the citizen participation process were low financial and time constraints, early citizen involvement, expectation management, and ethical behavior of the project team.

The mechanisms observed in Roombeek are partly also present in Hoboken, however they work slightly differently due to contextual differences. The funding for the Hudson River Project is granted only until 2022 and any funds not declared until then will have to be returned to the HUD. This "hard" time pressure puts local and regional planners, designers, and administrators in a position where it is not possible to conduct all formal measures of citizen participation they would ideally prefer in a manner that is of a high ethical standard (Caleb Stratton, personal communication, 07. 06. 2016). In addition, none of the design proposals are fully covered by the HUD funding and therefore additional funding needs to be acquired, putting financial pressure on the design and participation process. Considering the organizational set-up, the Hudson River

project is much more fragmented regarding the competences and in general the project team is more accountable to the mayors, NJDEP, and HUD than it is to the citizens. This accountability - coupled with various sorts of regulations and practices of higher complexity than in Roombeek - furthermore bedevils effective contact between citizens and the project team. The very essence of the RBD competition was to put the design first. This principle effectively made citizen participation in the design process itself impracticable. The project team - among which Mayor Dawn Zimmer of Hoboken and her untiring efforts need to be set apart - has to be ascribed high moral standards and high ambition in implementing an extensive citizen participation process. Yet, the above-mentioned constraints limit its capability to do so without jeopardizing the overall realizability of the project.

For H1 *“A high degree of citizen participation in a post-disaster resilience project has a positive effect on the effectiveness of its citizen participation process.”* we can state that in both cases we observed that when citizens were incorporated in the participation process to a higher extent, the trust in the project team increased and disputation within the process could be overcome. The hypothesis holds up.

As regards H2 *“A high degree of citizen participation in a post-disaster reconstruction project will only lead to a more effective citizen participation process when:*

- a) the project team is displaying ethical behavior.*
- b) the degree of technicality of the project is low.*
- c) the knowledgeability of participating citizens regarding the project is high.”*

we have to differentiate between the different parts. Regarding the ethical behavior of the project team, there is certainly a high degree of influence on the process. However, in both cases, a lower level of ethical behavior would simply lead to a lower degree of citizen participation in the first place. The ethical behavior of the project team thus directly impacts the degree of citizen participation since the project team has the capacity to define through its very actions this degree. The degree of technicality of the project was not found to moderate the above relationship. Knowledgeability of citizens regarding the topic is however likely to decrease with increasing technicality, though this relationship has not been researched. What is apparent is however the

moderating influence of the degree of knowledgeability of citizens on the relationship which can be observed when comparing Roombeek and Hoboken but also when comparing Hoboken before and after the “pitchfork meeting”.

For H3 *“The citizen participation process in a post-disaster reconstruction project will be more effective when*

- a) the project team is displaying ethical behavior*
- b) the degree of technicality of the project is low.*
- c) the knowledgeability of participating citizens regarding the project is high.”*

only H3 b) and H3 c) could be observed. However, especially for H3 b) data is contradictory since the Roombeek process was perceived as more technical than the process in Hoboken. Both in Roombeek and in Hoboken, the project team expressed high appreciation for citizens with high knowledge of the project technicalities.

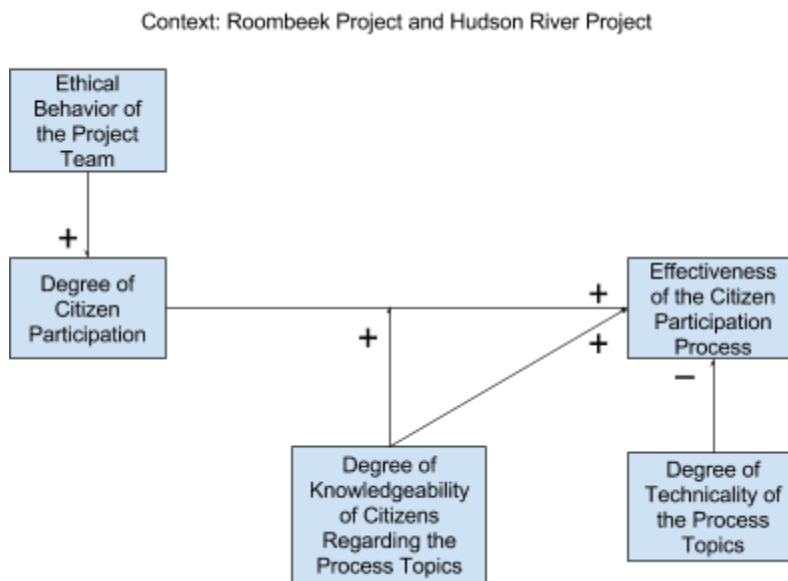


Figure [4]: Qualitatively Observed Relationships in the Roombeek and Hudson River Projects

9. Conclusion

Citizen participation in post-disaster resilience projects is a helpful tool for civil servants and elected officials to gain trust and support for a policy among the citizens of a community struck

by disaster. In the two cases analyzed qualitatively, many potential barriers to an effective citizen participation process could be observed. Of the hypothesized barriers, only the degree of knowledgeableability of citizens regarding the process topics could be observed to moderate the main relationship between degree of citizen participation and the effectiveness of the citizen participation process. From the research, the following “lessons learned” about conducting an effective citizen participation process for a post-disaster resilience project could be derived:

- Secure funding is essential to any project and becomes even more crucial if the resilience of a community is dependent on it.
- Equipping a central project team with broad authority regarding the project can help the cause in many ways. The project team will be more accountable to the citizens than to an administrative department, it will be able to act fast and non-bureaucratic if need be, and citizens will find it easier to get in contact with a person of importance for the project.
- The timeframe for the project should be set in an appropriate way for the project to be completed. It should not be too rigid and expandable if unforeseen circumstances demand so. Still, the project team should be kept under healthy pressure.
- A high knowledgeableability of citizens regarding the topics of the participation process is a crucial element to an effective process. The administration can play its part by supplying sufficient information to the residents and offering contact and discussion opportunities.
- Citizens should be given the opportunity to participate in the design process from a very early stage in order to prevent them from feeling locked into top-down decisions later on in the process. When involving citizens early, expectation management is crucial since it would be dangerous to make participants believe that all their suggestions will be implemented.

There is no certainly right way when conducting a citizen participation process. As an administrator, one needs to be wary of the potential barriers and pitfalls, and the above analysis of two such processes in partially different contexts could provide certain insights with the potential to support future administrative decisions on citizen participation. Future research could

focus on additional barriers to citizen participation which were mentioned in this research but not incorporated in the theoretical framework and the hypotheses.

10. References

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11. Appendix I - List of Interviewees

Name	Function	Date
Ton van Snellenberg	Project manager of Roombeek Project (January 2006 - July 2010)	16.03.2016

Joop Hofman	Project manager of Roombeek Project (2000 - 2006)	28.04.2016
Raka Sen	Researcher at RBD	27.05.2016
Rebuild By Design - “2 years later” conference	Updates on and lessons learned about the 7 winning project proposals.	03.06.2016
Caleb Stratton	Resilience Coordinator at City of Hoboken	07.06.2016
Carter Craft	Co-Chair at Citizen Advisory Group Hoboken,	08.06.2016
Hudson River Project - CAG Meeting	Inform about and discuss project updates with citizens.	16.06.2016
John Pope Carey	Citizen Advisory Group Hoboken	23.06.2016
Allen Kratz	Consultant at RBD	23.06.2016