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Open government and public trust: a new revaluation of the citizen perspective

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4. Methodology

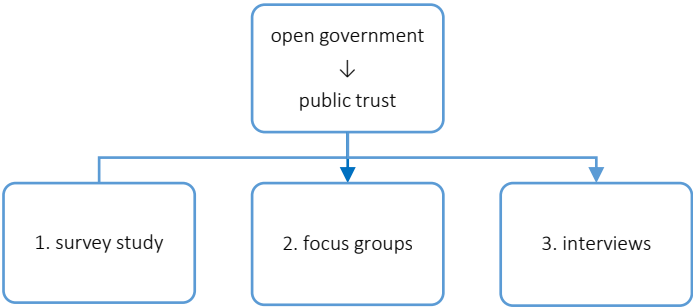
4.1 Introduction: mixed method design

THIS study examines the relationship between open government and trust, as well as its underlying mechanisms. Therefore, it deploys an explanatory mixed-method design in which the qualitative analyses complement the quantitative findings, aiming to capture the full complexity of social dynamics (Menzel, Buchecker, & Schulz, 2013, 359; Creswell & Creswell, 2018). A mixed-methods approach is needed to gain a multi-levelled understanding of public trust and its antecedents. It increases the validity of the results by complementing the quantitative findings (Mele & Belardinelli, 2019, 336). Limiting the research to the quantitative paradigm, one would be unable to explain the observed relations. It is my conviction that a strictly positivist view—about the nature of knowledge or the technical methods to generate that knowledge—, is insufficient in a study on public trust that has perceptions at its core.

In other words, both numbers and words are needed to capture the complex relationship between citizens and the state. The quantitative survey study can uncover larger phenomena in society, such as open government's relation to public trust (i.e. tell us a little about a lot), whereas qualitative approaches are able to delve deeper into the experiences and perceptions of individuals (i.e. tell us a lot about a little). The effect of various open government arrangements needs to be studied from various angles (Meijer et al., 2012, 19). The combination of these approaches adds value by bringing new perspectives (Hendren, Luo, & Pandey, 2018, 912) and a more complete picture of open government and public trust. The methods are integrated and interwoven through connecting points in the qualitative analyses, which reference and compare the results obtained from the quantitative results (Mele & Belardinelli, 2019, 337). The combination of methods is able to elicit additional findings and capture various perspectives at different levels of analysis (Mele & Belardinelli, 2019, 337). The qualitative studies increase the scope of the study and provide a more comprehensive understanding (Hendren, Luo, & Pandey, 2018, 912).

First, the survey study quantitatively measures the effect of openness on public trust, using two separate surveys. The first survey measures the four dimensions of openness in 350 Dutch municipalities. The second survey measures the trust of 2928 citizens living in those municipalities. These datasets are combined to examine whether there is a relationship between the level of open government per municipality and the trust its citizens have in their municipality. Subsequently, to gain a better understanding of the relationship between openness and trust, two qualitative studies address new questions that arise from the quantitative analyses. The focus group study explores the mechanisms behind the transparency-trust relationship as well as citizens' perceptions of openness and trustworthiness. The interview study zooms in on participants' perceptions to shed light on the mechanisms behind satisfaction and trust formation during public encounters. The stories of participants help deepen our qualitative understanding of what public encounters mean in specific contexts (Bartels, 2013, 478). Figure 4.1 displays the sequential mixed-methods approach to examining open government and trust.

Figure 4.1 Explanatory sequential design



After introducing the research context (4.2), the survey design (4.3), the trust measure (4.4), and the open government measure (4.5) are presented. The complete surveys are included in appendices 4.2 and 4.3. Subsequently, the chapter continues with the design of the two qualitative studies. Section 4.6 describes the focus group study, and section 4.7 the interview study.

4.2 Research context

THIS study examines the relationship between openness and public trust in a local government context, to find an answer to the question: *How does open government affect the level of public trust?*

4.2.1 Local government

The research context chosen for this study is the real estate assessment (in Dutch: WOZ) by Dutch municipalities for, amongst others, tax purposes. This research context is chosen for several reasons. Municipalities are the level of government closest to citizens, most visible, and relatively easy to access. Any effect of what the government does is most likely to occur at the local level. Local governments provide the most customer services on which public information needs to be available, and that is of interest to citizens (Armstrong, 2011, 11; Gustavsen et al., 2017, 8). The reason for choosing this specific domain out of the variety of municipal activities is that every household annually receives a municipal assessment and tax notice. When citizens are asked about their perceptions thereof, this is a concrete event instead of an abstract evaluation of an institution they have never personally encountered. Respondents are expected to have a certain level of affinity with the subject because of the visibility of municipal taxes as opposed to more 'hidden' taxes such as some national taxes based on the same assessed value. Moreover, in this municipal task, many facets of openness are present and applied in a variety of combinations. Moreover, this municipal task, is under the continuous supervision of an oversight authority, the Netherlands Council for Real Estate Assessment (NCREA). The NCREA allows for collecting the data for this research on municipal open government levels through its semi-annual surveys, to which the open government items are added. As a national oversight authority, the NCREA is an important actor within the empirical research field, yet at the same time, it is positioned at an appropriate distance from the research objects. A focus on one specific municipal task helps to exclude other factors that may come into play when evaluating local government as much as possible.

4.2.2 Introducing the empirical domain

In the Netherlands, the assessment of real estate is prescribed by law in the Act for Real Estate Assessment (in Dutch: Wet WOZ) and executed by municipalities. ‘Assessment’ of real estate is the valuation or appraisal (in Dutch: waardebepaling) as well as the formal notification of the values towards citizens as part of the local tax bill (in Dutch: waardevaststelling). The assessment of residential as well as non-residential properties is done on an annual basis, which in 2023 came down to around 9.3 million assessed values (<https://www.waarderingskamer.nl>). To accomplish this task of yearly revaluation, municipalities utilise automated valuation models that help the assessor estimate the market value (estimated sales price) of the real estate at a given date. This process is called mass appraisal. “Mass appraisal is the process of valuing a group of properties as of a given date and using common data, standardized methods, and statistical testing” (IAAO, 2017, 5). In order to do this, municipalities need to register property data, such as property ownership, cadastral maps, property use, and various physical characteristics. In addition to this, the appraiser collects, registers, and analyses market data, such as sales prices, and for non-residential properties, this market data includes rents, costs, and operating expenses as well (IAAO, 2017, 6). Since the focus of this study is citizen perceptions, the focus is on *residential* properties and the different methods for appraising non-residential properties are not discussed further. The way to assess residential properties is to compare all the properties to be valued with sold properties, in the same municipality, on the basis of their physical characteristics and their location. The sales prices of similar houses in the neighbourhood stipulate the market value of the other houses in that area. A comparison is made based on the property characteristics and other factors that influence the market price, such as location.

4.2.3 The population: homeowners

The aim of this study is to examine the effect of open government on public trust. Local government is considered closest to citizens, the assessment is concrete and visible to citizens, and taxation is of great importance to the functioning of the polity. While one’s home stands for safety and privacy, at the same time, the value of one’s house is the basis for taxation.

A proper performance of this public task necessitates an extensive exchange of information about these properties. This combination of privacy, government interference and the exchange of data, creates an interesting dynamic to further investigate the relationship between government and citizens. This research context does, however, necessitate narrowing down the population. Within this specific empirical domain, the choice is made to solely consider Dutch home owners as the population. When it comes to renters, they have less financial incentive than home owners to examine the real estate assessment of their home or to reach out to the municipality. Even though it is possible that renters have a financial interest in the municipal assessment, its associated taxes are most relevant to home owners that pay real estate tax and income tax in the form of notional rental value (in Dutch: *eigenwoningforfait*). This makes home owners the main focus of this study.

4.3 Designing the survey study

4.3.1 Why (two) surveys?

After establishing the research context, this empirical domain is to be unraveled from more than one angle. The study starts out with a quantitative survey design for the purpose of statistical analysis. An obvious advantage of surveys is that they allow for the collection of a large amount of data in a short period of time. Surveys have other clear advantages as well, such as flexibility in data collection and the possibility of systematic sampling of large populations since they are relatively inexpensive (Goodsell, 1994, 17). Surveys are the dominant method for assessing trust in the organisational sciences as they are able to capture individuals' perceptions, and this method enables the replication of results by using pre-existing trust instruments that can be used across studies (Gillespie, 2015, 227). The validity of the instrument can be assessed through accepted validation methods 'providing the researcher with confidence that the measures tap the intended constructs' (Gillespie, 2015, 227). Citizens are furthermore considered the best data source since they are the only expert on their own feelings and experiences (Goodsell, 1994, 18). Moreover, while examining different methods for measuring trust, the OECD (2017) finds that self-reported measures of trust in others 'capture a belief about trustworthiness', whereas experimental measures

capture 'a willingness to cooperate and one's own trustworthiness'. These measures show convergent validity, and self-reported measures are deemed a valid measure of trust in institutions (OECD, 2017a, 107).

Addressing the issue of common method bias, through a separate survey, the level of openness of Dutch municipalities is assessed. Municipalities are questioned in detail about the existence of the four openness dimensions (proactive transparency, responsive transparency, data insight, and participation) in the domain of municipal real estate assessment. The dimensions of open government are derived from studies on open government. To fit the empirical field, survey items are created in consultation with field experts and focus on what citizens can actually encounter in terms of institutional openness measures. The high response rate was due to the cooperation of the national supervisory authority, which included the survey in its annual spring survey among municipalities. The differences between municipalities offer analytical leverage for comparison. Other characteristics of municipalities, such as population size and geographical location, are analysed as well. Still, survey research is not completely without problems either. A downside of surveys is that they offer little opportunity to express feelings and cannot fully explain why the results are the way they are. Moreover, invalidity of the trust measurement could occur when the wording of the items is not clear enough. Another problem that may arise is non random sample selection caused by a digital-divide bias or a self-selection bias. The following section describes the means of data collection and the attempts to mitigate these biases.

4.3.2 Survey administration

The trust survey is disseminated through municipal websites as well as through flyers. The selection of the sample needs to be random for it to be representative of the larger population, and especially in a study on open government, one needs to be careful to prevent a potential digital-divide bias (Seavers, 2018, 150). In the literature, several sampling methods are used, such as telephone surveys through CATI: computer-assisted telephone interviewing (Zhao & Hu, 2015), respondents recruited from a municipality's citizen opinion panel (Grimmelikhuijsen, 2012), respondents contacted by e-mail to answer sets of questions as part of a regular

omnibus (Gustavsen et al., 2017), or through field research or CAPI: computer assisted personal interviewing (Downe et al., 2013). Since open government aims to include as many participants as possible by lowering any threshold, this should be reflected in the analogous survey dissemination as well. The original dissemination strategy of the trust survey was to overcome weaknesses of digital sampling, such as a self-selection bias or a digital divide bias, by asking people in the street to complete the survey. However, COVID-19 prevented this from being an eligible option in the spring of 2021. Therefore, besides making the link to the survey available through municipal websites, flyers were handed out in several larger and smaller municipalities around the country (Almelo, Coevorden, The Hague, Leiden, Leiderdorp, Rotterdam, and Voorschoten) to try and persuade people to participate. Although this does not fully overcome the risk of a self-selection bias, it does expand the sample beyond the group that visits municipal websites. A sample of the flyer is included in [appendix 4.1](#).

4.3.2.1 The survey tool

The tool used for the trust survey is Qualtrics. The tool is tested for data security and approved by Leiden University. In Qualtrics, it is possible to randomise answers to minimise any order effects. The advantage of an anonymous survey is that respondents feel free to give honest answers. Only when respondents voluntarily choose to, they could fill out their e-mail address for the sole purpose of being available for further questions on the topic of this specific research. Yet, a downside is that there is no limit to how many times a respondent can use an anonymous survey link. To mitigate the risk of multiple entries by the same respondent, the Qualtrics 'Prevent Ballot Box Stuffing' option was used (a cookie that prevents that the survey is taken twice from the same device). This raises the threshold for completing the survey twice. Although no technical measure was taken to fully prevent respondents from taking the survey again on another device, this risk is deemed small.

4.3.2.2 Pilot study

A pilot study is executed with the goal of assessing respondents' feedback about completing the survey and its clarity. The pilot is not meant to create preliminary results. The average time for completing the survey is

measured to correctly inform respondents in advance. Lastly, the pilot serves to test the technical aspects of the survey tool as well. A convenience sample is used, a small group of 20 respondents from various educational backgrounds and ages, with varying levels of experience in the empirical field. The pilot is conducted in two rounds. In the first phase, textual alterations to the questions are made to fit the language level of the target audience. For municipalities, the use of clear and simple language was an important prerequisite for disseminating the survey. Secondly, the questions and answers are tested on their understandability, for example, why do respondents choose a certain answer and how did they perceive it? This resulted in a few clarifications as well as some practicalities, such as a more thorough introduction of certain questions as well as a clearer notification of completion.

4.3.2.3 Representativeness

In order to examine the relationship between government and citizens, the focus of this study is on a local government context and, more specifically, within the domain of municipal real estate assessment and taxes. In this research context, the choice was made to take the Dutch home owners as the population. To check the representativeness of the sample used, some data on the population could be gathered, such as the income of home owners (Netherlands Statistics, abbr. in Dutch: CBS). For education and age, no national data was available for home owners specifically, so these variables are compared to national data on *all* citizens (all adults, regardless of their living situation as home owners or renters).

Considering the CBS data does not differentiate between home owners and renters regarding age, and education, this slightly complicates comparing the sample to the general population. For both education and age the frequency distribution of the sample differs from that of the entire Dutch population. The sample is relatively highly educated and relatively older. Considering citizens in their twenties are more likely to rent than to buy a house, it does not come as a surprise that within the sample of home owners, the older age groups are overrepresented, compared to the general population. However, the fact that the sample is relatively highly educated cannot be fully explained by the comparison of home owners to the general population, since renters can be highly educated as well. The

overrepresentation of highly educated respondents may be caused by the fact that certain types of citizens – i.e. with a higher educational background – are just more likely to participate in surveys. This overrepresentation, therefore, seems somewhat inevitable. CBS does provide data on the income of home owners. Generally, home owners have a higher income than renters. Although all income groups are represented in the sample, the group with a yearly income of more than € 100,000 is overrepresented. Table 4.1 presents the composition of age, education, and income levels of the sample and the wider population.

Table 4.1 Comparison sample and population: age, education and income

	Survey sample	The Netherlands in 2020
Age	(N=2920)	(N=14 mln)*
18-45 years	16.3%	43%
45-65 years	43%	34%
65+ years	40.7%	23%
Education	(N=2920)	(N=13.3 mln)**
Low	4.5%	28%
Medium	25.8%	21%
High	69.6%	31%
Income (home owners)	(N=2494)	(N=4.5 mln)***
Less than 20.000 euro	2.2%	3%
21.000 to 30.000 euro	7.8%	10%
31.000 to 40.000 euro	15.6%	18%
41.000 to 50.000 euro	18.8%	16%
51.000 to 100.000 euro	40.8%	46%
More than 100.000 euro	14.8%	8%

* Number of Dutch adult citizens, 2020.

** Number of Dutch citizens between 15-75 years old, 2020.

*** Number of Dutch *households* that are home owners, 2020.

A self-selected sample is not ideal, yet it can be considered the most feasible approach in this specific research context (Wijnhoven et al., 2015, 34). To a certain extent, sample selection bias always occurs through the public online dissemination of a survey, even though in this study different modes of dissemination were used to try to limit this effect. The home owners who completed the survey may be more engaged or knowledgeable than the average home owner. The sample in this respect

is not ideal and may not allow for statistical inferences about the entire Dutch population. Still, in the context of this study, it still produces important findings. The aim of this study is not to merely capture public perceptions but to examine whether, within a subsample of homeowners, openness affects public trust and whether there are other underlying mechanisms that affect this relationship. The lack of an insignificant result of the chi square tests for the representativity of these three variables is not deemed of paramount importance for examining this relationship. Nevertheless, it cannot be ruled out that a different composition of the sample could shift the results. To help overcome any limitations of these quantitative survey data, they will be supported by two qualitative studies that focuses on citizens perceptions to gain a more sophisticated understanding of trust-building processes.

4.4 Measuring public trust

In this study, public trust is defined as a ‘citizen’s psychological state comprising positive expectations of the intentions and behaviour of government’. The operationalization of public trust is derived from the literature. This section elaborates on the choice of the trust items and the control variables. The validity and reliability of the measure are addressed in the result [section 5.1.1](#).

4.4.1 From definitions to survey items

The aim of the survey is to gain genuine evaluations with questions that are easy to interpret and neutral through specific item wording that is in line with previous research to further build the body of knowledge. This study aims to capture the impressions of citizens’ experiences and perceptions of local government activities, instead of an abstract image of bureaucracy. Specific questions on perceived competence, benevolence, and integrity, make it possible to tap into the actual impressions of local government (Goodsell, 1994, 32). To be valid, the measure seeks to make the object of trust specific, identifiable, and consistent across items (Gillespie, 2015, 229; Mayer & Davis, 1999, 124) and gauge trust in a specific other party (Fulmer & Gelfand, 2012, 1174) within a specified context (Lewicki & Brinsfield, 2015, 58): the appraisal of real estate.

When gauging citizens' perceptions of trustworthiness, its three dimensions need to be reflected in the survey, consistent with their definitions (Mayer et al., 1995, 729). Mayer and Davis develop items to assess the trustworthiness of another party along its three dimensions. Ability (in this study: competence): 'I feel very confident about X skills', benevolence: 'X would not knowingly do anything to hurt me', and integrity: 'X tries hard to be fair in dealings with others' (Mayer & Davis, 1999, 136). Grimmelikhuijsen (2012) uses a measure with multiple items in his research on the effect of transparency on trust in municipalities.

Subsequently, Grimmelikhuijsen and Knies (2017) validate a 'Citizen Trust in Government Organizations' (CTGO) scale. This scale is based on previous research on consumer trust in e-service companies (McKnight, Choudhury, & Kacmar, 2002). Their consumer trust scale was adapted to the context of public administration by changing personal interests into public interests (Grimmelikhuijsen & Knies, 2017, 587). Their CTGO-scale is validated in the context of trust in Dutch municipalities and proved to be a reliable trust measure. Considering the similarities in the object of trust of local government in the Netherlands, this study utilises their template instead of developing a new instrument. This helps to evolve 'a more integrated body of trust literature' (Gillespie, 2015, 232). The scale is deployed to measure trust in Dutch municipalities in a different municipal domain, yet the object of trust is the same: the respondent's municipality. The survey items aim to stay close to the existing items, yet some items are slightly adjusted to fit the empirical field as well as the language level of the general population. Table 4.2 shows the items as well as their Dutch translation. In the survey, the items are randomized to account for any question order effects (Uslaner, 2015, 99).

Table 4.2 Trust items

Grimmelikhuijsen & Knies (2017)	Dutch translation Grimmelikhuijsen (2012)	Present study (English)	Present study (Dutch translation)
Prefix: When it concerns Y,		When it concerns municipal real estate assessment..	Bij de WOZ..

Grimmellikhuijsen & Knies (2017)	Dutch translation Grimmellikhuijsen (2012)	Present study (English)	Present study (Dutch translation)
<i>Perceived competence</i>			
[The municipality of X] is capable – COMP1	De [gemeente X] is bekwaam – C1*		
[The municipality of X] is effective – COMP2	De [gemeente X] is effectief – C2*		
[The municipality of X] is skilful – COMP3	Over het algemeen is de [gemeente X] is vakkundig – C3	..the municipality is skilful	..is de gemeente is vakkundig
[The municipality of X] is expert – COMP4	De [gemeente X] is deskundig – C4	..the municipality is expert	..vind ik de gemeente deskundig
[The municipality of X] carries out its <i>duty</i> very well – COMP5	De [gemeente X] voert haar taak zeer goed uit – C5	..the municipality carries out its task well	..voert de gemeente haar taak goed uit
<i>Perceived benevolence</i>			
Prefix: When it concerns Y,		Prefix: When it concerns municipal real estate assessment..	Als het gaat om de WOZ-uitvoering..
If citizens need help, [the municipality of X] will do its best to help them – BEN1	Als burgers hulp nodig hebben dan doet de [gemeente X] haar best om hen te helpen – B1	..the municipality will do its best to help citizens, if they need help	..doet de gemeente haar best om inwoners te helpen als zij hulp nodig hebben
[The municipality of X] acts in the interest of citizens – BEN2	De [gemeente X] handelt in het belang van burgers – B2	..the municipality is committed to the interest of citizens**	..hecht de gemeente waarde aan het belang van inwoners

Grimmellikhuijsen & Knies (2017)	Dutch translation Grimmellikhuijsen (2012)	Present study (English)	Present study (Dutch translation)
[The municipality of X] is genuinely interested in the wellbeing of citizens – BEN3	De [gemeente X] is oprecht geïnteresseerd in het welzijn van burgers, niet alleen in haar eigen welzijn – B3	..the municipality keeps in the wellbeing of citizens in mind	..houdt de gemeente het welzijn van inwoners in het oog
	De [gemeente X] benadert burgers oprecht* – B4		
<i>Perceived integrity</i>			
[The municipality of X] – INT1 approaches citizens in a sincere way***			
Prefix: When it concerns Y,		Prefix: When it concerns municipal real estate assessment..	Bij de WOZ..
[The municipality of X] is sincere – INT2	De [gemeente X] is oprecht – H3	..the municipality is sincere	..is de gemeente oprecht
[The municipality of X] keeps its commitments – INT3	De [gemeente X] houdt zich aan haar toezeggingen – H2	..the municipality keeps its commitments	..doet de gemeente wat zij belooft
[The municipality of X] is honest – INT4	De [gemeente X] is eerlijk – H1	..the municipality is honest	..is de gemeente eerlijk

* From the reactions in the pilot study it became clear that too many similar questions caused confusion. Therefore, this item is not included.

** This question is slightly altered to fit the field of real estate assessment and local taxation.

***This item mentions *approach* as well as *sincerity* and as such can be included as either benevolence (Grimmellikhuijsen, 2012) or integrity (Grimmellikhuijsen & Knies, 2017). To avoid confusion, this question is excluded from the present survey.

4.4.2 Control variables

In addition to the trust items, several control variables are added to the survey. The rationale for including certain variables is based on the literature, as described in the following sections.

4.4.2.1 Experience: 'users' and 'non-users' of open government

In order to establish whether perceptions of users (citizens who engage in public encounters) and non-users (citizens who do not encounter government in any way after receiving the assessment and tax bill) differ from each other, this survey includes items that measure the respondents' experience with looking for information or encountering the municipal tax department. It is likely that 'attitudes are influenced by actual experiences' (Houston & Harding, 2014, 58). From the two groups, the group of citizens who do not contact government is probably the largest. Several previous studies also distinguish between citizens who have experience with government and those who do not. For example, users and non-users of e-government. There may be fundamental differences between the perceptions and key motives of non-users and users, as non-users have to rely on expectations whereas users can rely on past experiences (Seo & Bernsen, 2016, 271). Tyler (1990, 192) distinguishes 'respondents with experience' from 'all respondents' in his search for citizen perceptions of government, as do Beldad et al. (2012) in their large internet survey among a Dutch citizen panel. Moreover, Tyler includes a question on how satisfied the respondent is with the encounter with public institutions (police or court). In a later stage of the study, additional qualitative data is collected from citizens who have both a lot and little experience with open government. The complete trust survey is included in [appendix 4.2](#) (English and Dutch).

4.4.2.2 Satisfaction

As respondents' experiences may influence their trusting perceptions, the survey includes citizen satisfaction with the experience, as did several previous studies on public trust. For example, Beldad et al. (2012, 45) present two statements that the respondent can either agree or disagree with: 'my online transactions have always been good' and 'I have no negative experience in transacting online with government organisations'. An Israeli study on the national insurance institute asked citizens and

employees about their satisfaction with the services they receive, the quality of the medical treatment, the quality of administrative services, the quality of management, the operation, and the outcomes (Mizrahi et al., 2010, 112). Zhao & Hu (2015, 364) include in their study the item 'generally speaking, what score can you give to evaluate the quality of the public services', as do Gustavsen et al. (2017, 9) that measure satisfaction with services on a 5-point Likert scale. The present survey includes a similar question on satisfaction with the experience to help determine the influence of service satisfaction as an evaluation of a past experience on public trust in government.

4.4.2.3 Perceptions of openness and performance

Several studies that examine the relationship between elements of open government and trust, ask respondents about their perceptions of transparency (Mabillard & Pasquier, 2016), 'subjective feelings of the respondents about their opportunity to participate' or their perceived 'ability to influence services' (Mizrahi et al., 2010, 112; Gustavsen et al., 2017, 9). Three items on perceived transparency, data insight, and participation possibilities are included, to see how perceptions of openness are related to trust and to examine whether any discrepancies between practices and perceptions arise.

As described in [section 3.3.4](#), performance of the government is considered a possible determinant of public trust. It is difficult to find a proper institutional performance indicator (Yang & Holzer, 2006, 114) and the performance indicator used is *perceived performance*, even though it may diverge from other institutional performance indicators. Although other studies use multiple items for perceived performance, for the purpose of this study, one item is deemed sufficient since the survey is already demarcated to one specific municipal task.

4.4.2.4 Topic engagement and knowledge

The level of knowledge and affinity with the empirical domain could influence citizens' perceptions or interact in the relation between openness and public trust (Grimmelikhuijsen, 2012, 81). Prior knowledge can influence the effect of transparency on trust in local government. Previously, changes in perceived *competence* are found in the group of

citizens with little knowledge and high prior trust, while changes in perceived *benevolence* are found among citizens with little knowledge and low trust levels (Grimmelikhuijsen & Meijer, 2014, 151). Moreover, people's level of engagement with the topic may negatively affect trust in a government organisation (Grimmelikhuijsen, 2012, 66). Gustavsen et al. (2017) include a variable that measures interest in local politics, referred to as cognitive capacity, since an increased interest could have affect trust. Following these examples, the trust survey includes an item on topic engagement (affinity) and an item on knowledge of the empirical domain to examine whether these factors affect trust or interact with openness.

4.4.2.5 Demographic control variables

This study employs several control variables to be able 'to isolate the effects of primary interest to this study' (Porumbescu, 2017, 526) and to test the robustness of the results. A multitude of demographic variables are theoretically associated with public trust. The most commonly used background variables that might affect perceptions of government are: age, education, income, and political preference. For example, Charron & Rothstein (2016, 65) include demographic characteristics such as gender, age, income, and mother tongue, as well as political ideology by self-placement on a left-right scale, unemployment, and experience with government. Marien & Hooghe (2011, 280) examine various control variables, including age, gender, level of education and religious practice. Grimmelikhuijsen (2012a, 68) includes gender, age, education, and political preference. Political interest can affect trust in government (Stoyan et al., 2016, 29), and the unequal distribution of these background variables potentially threatens the internal validity of the results (Grimmelikhuijsen et al., 2013, 580). Wei, Gong, Jiao, & Duan (2017, 104) include gender, age, education, political status, and income. Christensen et al. (2020, 1275) include years of residency, as trust may be built over time. Considering the effect of most of these control variables is still under debate, the following control variables are added to the survey: age, education, income, years of residency, political preference, and occupation in- and outside of (local) government. Even when a variable does not affect the openness and trust relationship, its examination can still provide interesting insights into citizens' trusting dispositions.

4.5 Measuring open government

THIS study explores empirical evidence from a real-world example: the institutional openness implementations of Dutch municipalities regarding their public task of real estate assessment. Openness indicators from previous studies form the basis for the indicators in this study. The items aim to capture in detail what citizens actually encounter when they search for information or encounter the municipality. When measuring openness, the starting point is always ‘what does the citizen actually have access to and what options are open to him?’ The indicators do not concern the perceptions of civil servants, yet actual practices: the measure is either employed by the municipality or not. Although reality is often less idyllic and indicators can also be partially implemented, the allocation of the scores is factual: something is implemented fully (1 point), partly implemented (0.5 points), or not at all implemented by the municipality (0 points). To ensure consistency, the scores were assigned via a fixed ‘openness scorecard’. Together, the indicators determine the degree of active transparency, responsive transparency, data insight, and participation per municipality (the four latent variables), resulting in an openness scale per dimension. The fine-tuning of this instrument is done in consultation with field experts. The goal was to build a detailed yet transparent measure that is concrete, comprehensible, and gives due weight to the importance of the different institutional openness indicators. With this measurement instrument, every municipality is scored in the same fashion, so that differences in institutional openness can be uncovered objectively. The complete open government survey is included in [appendix 4.3](#) (English and Dutch) and the corresponding openness scorecard in [appendix 4.4](#).

4.5.1 Survey administration

To measure how open real estate assessment is in The Netherlands, the open government items are added to one of the regular surveys of the oversight authority, the Netherlands Council for Real Estate Assessment (NCREA), through which key data per municipality is already gathered. The survey was open to all municipalities, or their administrative bodies, from March 30, 2020 until May 1, 2020. All regular contact persons of NCREA

received a notification through email when the survey opened, with an explanation of the purpose of the extra items on openness. Out of the 355 municipalities in 2020, 354 participated, and their openness score could be determined. The openness scores were reviewed again in 2021 by asking all municipalities whether or not any changes had since the spring of 2020. As three municipalities merged into one in 2021 and two municipalities did not respond to the second survey, this resulted in a dataset on the openness implementations of 350 Dutch municipalities in 2021. This way, their most recent municipal openness levels could be used in the analysis to examine their relationship to public trust in the spring of 2021. After collecting all the data on open government and public trust, the two datasets are merged in SPSS. The openness scores per municipality are added to each line in the trust survey, i.e. added to each respondent. Combining the data on openness and trust this way makes it possible to examine whether the degree of municipal openness is related to citizens' trust in their municipality. No selection is made between the municipalities based on the number of respondents per municipality. None of the survey items were mandatory. All citizens who completed the survey for more than 90% are included in the analysis.

4.5.2 Open government indicators

Proactive transparency is the availability of information about the way government operates, provided proactively. The measure includes the number of channels for the proactive provision of information. Does the municipality organise information meetings to provide information? Do they publish news about the assessments in local newspapers, on their website, or on social media, and how often? Additionally, the measure examines whether the municipality actively provides its citizens with relevant information, such as information on public spending (and in an accessible form or not) and information on internal and external quality control. Together, the items assess to what extent the municipality proactively provides information about the way it operates. In addition to the information that the municipality proactively provides, a citizen may have a specific question about the work of the municipality. Responsive transparency is the accessibility of information about the way government operates, provided responsively. To measure responsive transparency, the

accessibility and the customer service of dealing with such questions are assessed. For example, is it possible for citizens to ask questions in person, at city hall or other (semi-)public locations. To assess how accessible the municipality is over the phone, the items include whether there is a general municipal number one has to look up somewhere or if there is a direct number of a content expert on the tax notice, as well as the opening hours the public can actually reach the municipality. Moreover, the accessibility and responsiveness of email and web forms are assessed, including the response term to digitally asked questions. Finally, the municipality may also be accessible to the public through digital chat channels.

In decision making, local governments use data about citizens and their properties. Data insight is the opening of public sector information and enabling citizens access to government-held data that is used in individual decision making. Data insight is measured by asking about the possibility for citizens to have both prior access to property data as well as its accessibility afterwards. Do all or a selection of citizens have prior access to these data, are all property data accessible or only a portion, and can the value be reviewed prior to the formal assessment? There can be non-digital channels for accessing data prior to the formal assessment as well. After a decision is made, the digital channels to access official documents containing assessment and valuation data can be singular or multifold. These data are more accessible when there are more channels for accessing documents containing them and if they are provided in a timely manner. Lastly, the measure includes how much data is provided to citizens in objection procedures. The last openness dimension is participation. It is the way in which the municipality opens up to the public's ideas and knowledge and enables citizen engagement in decision making. There are several ways to enable citizens to participate. Prior to the assessment, there is the possibility of correcting property characteristics online or through non-digital means. In addition to the practical accessibility and structure of the formal objection procedure, there is the informal objection procedure (the possibility to have decisions altered without having to start a formal procedure). Finally, the use of participatory social media is included in the measure. Not all measures are

equally important. The use of participatory social media is a smaller part of participation than, for example, the ability to have decisions rectified. The openness scorecard ([appendix 4.4](#)) shows the weight and rationale of all items.

4.6 Focus groups

WHEN examining social mechanisms, focus groups are considered an appropriate method. Group discussions allow interaction between the respondents about a shared experience or research topic (Mortelmans, 2007, 318). Focus groups are considered suitable for clarifying the quantitative findings. For the research questions in this sub-study, focus groups are considered suitable as they give room for opposite opinions. Their setting stimulates interaction between citizens with different opinions, who tend to have quite strong ideas about trust in government. During the group conversations, differences and similarities in opinions become prominent and rise to the surface. The dynamics in the small groups lend themselves well to discussing concrete and personal experiences with municipal openness and trustworthiness. Throughout the conversations in which respondents react to each other, examples rise to the surface of how participants arrive at their opinions. Precisely because of their mixed perceptions as well as varying experiences and levels of knowledge of local government, interesting dynamics arise during the discussions, in which participants can also learn from each other's points of view. The open discussions can lead to new insights. A major disadvantage of focus groups is that the results may not always be generalizable. The selection of participants is not a representative representation of the population. Still, focus groups can be useful to examine the origins of tax payers perceptions of local government. The intention is to take a closer look at why the relationships in the survey are as they are and what underlying mechanisms exist that can help explain those results. Although the number of questions that can be answered in the focus groups is limited, the group discussions are expected to provide sufficient opportunity to recognise patterns in respondents' stories.

4.6.1 Topic list and coding

The focus groups are data-driven, and the results are grounded in the stories of the respondents. The topic list in table 4.3 is used as a guideline for structuring the group discussions. Even though transparency is an integral part of openness and the topics in the conversations may overlap, the analysis chapter attempts to describe them separately.

Table 4.3 Topic list

Topic list (English)	Dutch translation
When you receive the WOZ-decision (the real estate assessment) from the municipality, what comes to mind?	U ontvangt de WOZ-beschikking van de gemeente. Wat denkt u?
MIXED EFFECT OF TRANSPARENCY ON TRUST	
Do you ever look for information about the WOZ?	Gaat u wel eens op zoek naar informatie over de WOZ?
What information do you find important or interesting?	Welke informatie vindt u belangrijk of interessant?
What was your opinion about the information found?	Wat vond u ervan?
What do you think the municipality could do to be more transparent?	Wat zou de gemeente volgens u kunnen doen om transparanter te zijn?
Did this affect your trust?	Wat deed dit met uw vertrouwen?
Would your trust increase with more or different information about the WOZ?	Zou uw vertrouwen toenemen met meer of andere informatie over de WOZ?
SHAPING PUBLIC PERCEPTIONS: TRUSTWORTHINESS	
How do you see the trustworthiness of the municipality?	Hoe ziet u de betrouwbaarheid van de gemeente?
What comes to mind when you think about the trustworthiness of the municipality?	Waar denkt u aan bij betrouwbaarheid van de gemeente?
SHAPING PUBLIC PERCEPTIONS: OPENNESS	
How do you experience the openness of the municipality?	Hoe ervaart u de openheid van de gemeente?
What comes to mind when you think of the openness of the municipality?	Waar denkt u aan bij openheid van de gemeente?
Is there anything the municipality could do that would increase your trust?	Is er iets dat de gemeente zou kunnen doen waardoor uw vertrouwen zou toenemen?

A verbatim transcript is made of all sound recordings. The transcripts are coded in the web version of Atlas.ti. The first coding phase is open, in which both central themes from the literature are given a code, as well as themes suggested by and the literal wording of the respondents. The codes function as summaries of the participants' contributions and help cluster them into emergent categories (Leavy, 2014, 584). In the second phase, all codes are reconsidered and assigned to a corresponding theme, after which a hierarchy is created for the various subjects using a tree diagram. For example, positive and negative attitudes, experiences with various information sources, and the separate elements of trustworthiness. This is an iterative process in which codes are merged, removed, or moved elsewhere as the transcripts and the quotes are read over and over again, based on an increasingly clear overarching structure. In this process, patterns within the data are discerned to construct meanings and capture the essence of the texts (Leavy, 2014, 584). The full analysis is set out in chapter 6, where quotes from the participants provide the common thread throughout the text. The overall analysis is grounded in the participants' individual experiences, and their quotes lead the way. In other words, it is my analysis of their perspectives. For privacy purposes, no surnames are included in the transcripts, and all first names are pseudonymized. The complete pseudonymized overview of the quotes per code is available as supplementary materials.

4.6.2 Facilitating the focus groups

Citizens participated in the focus groups completely voluntarily. Participants were offered a tote bag, pencils, and a notepad. To entice people to participate, an attractive location was chosen in terms of travel time and appearance: such as old and new university buildings in The Hague and the Old Observatory in Leiden. A small contribution towards any travel expenses was offered, yet it was not used. Each focus group lasted around 90 minutes to give each participant enough time to voice their opinions. Each group session starts with a short introductory round and an explicit mention of respect for each other's, possibly opposing, opinions. During the focus groups, the moderator asks questions, making sure everyone gets a turn while letting the participants speak. To learn from each experience, to evaluate sessions, and for safety purposes, an

assistant is present in every focus group. A moderator document of first impressions is composed immediately afterwards, and each session group is planned at least two weeks apart. Figure 4.2 displays the timeline of the focus groups. The choice for the summer is made because of the least restrictive COVID-measures, as live focus groups are expected to give a richer discussion than remote online meetings.

Figure 4.2 Timeline focus groups



4.6.3 Sample selection

At the end of the quantitative survey in 2021, respondents are asked whether they would be willing to additionally answer questions on their perceptions. From this pool of respondents, a selection of them was invited to the focus groups. In practical terms, since the focus groups are held in university buildings in The Hague and Leiden, respondents that live in that region were invited (The Hague, n=157 and BSGR, the tax cooperation body including Leiden, n=60). This sums up to a total of 217 email Invitations, resulting in a total of 26 participants divided over five focus groups (response rate 8%) and seven applicants that did not show up. The group of respondents is considered a good representation of the total group of invitees. Their trust levels are similar: more or less normally distributed, albeit with a slight skewness towards the lower scores. Similar to the national results, in these municipalities, two-thirds did not encounter the municipality about the WOZ, and one-third did. Out of the 26 focus group participants, about a third (n= 9) recently encountered the municipality on this topic.

The sample selection still has a risk of self-selection, which could result in a one-sided narrative. To mitigate this bias, the focus groups were composed based on criteria that contain both experiential and attitudinal characteristics. Every single focus group consisted of high as well as low trust citizens and consisted of both nonvocal citizens (who did not recently reach out to the municipality in their capacity as taxpayers) as well as citizens that did recently 'exercise voice', for example by filing a notice of objection. Still, one has to bear in mind that the group of participants may feel more involved in issues regarding public administration than the average citizen.

4.7 Interviews

In the third study, interviews with participants help explore *what shapes their satisfaction and trust* after an encounter with the government. It aims to capture the rich perspective of participants. Public encounters between officials and citizens are a complicated phenomenon (Bartels, 2015, 3). How citizens experience public encounters and which parts of those encounters influence their perceptions can only be uncovered by hearing it from them. In-depth interviews are considered an appropriate way to gain insight into participants' perspectives and the formation of their satisfaction and trust. The stories of participants deepen the qualitative understanding of what public encounters mean in specific contexts (Bartels, 2013, 478).

In the semi-structured one-on-one interviews, participants can talk freely, voluntarily (signing informed consent forms upfront), and confidentially about their experiences with and perceptions of local government. The interviews take place shortly after the encounter, so that citizens can speak from recent experiences when they explain, in their own words, what was important to them in the encounter. The interviewer guides the interviewee through the questions, yet takes on a non-interfering role and does not co-create the story (Leavy, 2014, 282). The interpretation of the answers is made transparent through the coding scheme. A clear limitation of this research method is that the conversations are restricted to a small group of participants, possibly limiting generalisability to other groups that are not invited or that are unwilling to cooperate. Even though the number

of participants is by definition lower than in the survey study, interviews are able to enclose rich empirics (Hupe, 2022, 230). Therefore, interviews are deemed a suitable method to study citizens' experiences and perceptions when they engage in public encounters.

4.7.1 Topic list and coding

Several factors that may impact the effect of public encounters merit further qualitative exploration, such as procedural and distributive justice (MacQueen & Bradford, 2015; Tyler, 2006), communicative aspects (Bartels, 2015; Samanta & Hand, 2022; Luoma-Aho & Canel, 2020), as well as factors related to the participant (Siebers, 2019; Oldenhof and Linthorst, 2022). These serve as sensitising concepts that 'rest on a general sense of what is relevant' (Mortelmans, 2007, 114) and help structure the interviews, yet are not exhaustive. Those concepts are shown in table 4.3.

First of all, people are more willing to adhere to a decision when it is fairly arrived at. A sense of unfairness can 'deteriorate into delegitimizing the government and evading taxes' (Beeri et al., 2021), undermining public trust. During the participation process, trust can either be fostered by the fairness of the procedure or by the fairness of the outcome (Tyler, 2006, 114). However, feelings of procedural justice can also decrease after an encounter (MacQueen & Bradford, 2015). Citizens' evaluations of distributive and procedural justice both constitute important determinants of trust in authorities (Schnaudt, Hahn & Heppner, 2021, 15). The procedural factors are derived from procedural justice theory, which states that when it comes to attitudes towards government, citizens respond more strongly to the process they experience than to the outcome they receive (Tyler & Lind, 1988, 79). However, the favorability of the outcome of a situation also affects judgements of fairness (Tyler, 1990, 109). In distributive justice theory, the allocation of resources is dominant. When an actual reward or outcome is less than the idea of a 'just award', evaluations of justice are low (Jasso, Törnblom & Sabbagh, 2016, 202). Although distributive theory is often examined at the macro-level, such as the fairness and equality of the distribution of social resources and outcomes within a society, this study uses factors of distributive justice at the micro-level. Finally, it could be that certain characteristics or expectations of the citizen determine how a procedure is experienced. For

example, Siebers et al. (2019) find that the more times someone engages, the lower their trust is. They explain this result in terms of *internal efficacy* (do citizens have confidence in their ability to understand and influence the process) and *external efficacy* (the belief that the government is responsive and that their engagement in decisions matters). Citizens may only gain trust when they think that they are capable, when they believe the government will use their input (Siebers et al., 2019, 552), and when their expectations of government are met.

Table 4.3 Possible determinants of participants' perceptions

I. Procedural factors	II. Distributive factors (outcome)	III. Participant related factors
a. Explanations of the process is given (feeling included)	Obtaining the desired result vs. feelings of injustice regarding the result (favorability of the outcome)	Ease
b. Citizen is allowed to voice concerns / opportunity to ask questions (perceived voice)	Obtaining clarity regarding the decision / rationale (getting an explanation)	Internal (self-)efficacy: feeling informed and knowledgeable
c. Citizen is listened carefully to / gets reactions to arguments (feeling heard)		External efficacy: high expectations about municipal handling of objections
d. Bureaucratized interaction / modes of communication / face-to-face (personal) contact		
e. Involved civil servants / attentiveness / respectfulness (image of officials)		
f. Receive result in a timely matter (actual handling term; perceptions of processing time)		Self-view: consumer of public services or democratically active citizen

The empirical context of this study helps limit the concepts to be examined. Generally, financial motives underlie objections to the assessed value (lowering the assessed value, lowers the tax burden). As the tax domain invokes a more consumer-oriented self-view for citizens than one of a democratically active citizen, 'self-view' is not considered to be a relevant explanation for the difference in satisfaction or trust in this type of participation. However, their prior expectations about the procedure (external efficacy) and the way people think about their own abilities (self-efficacy), could influence their experiences. Several items on procedural aspects are included, such as feeling included in the process, perceived voice, and feeling heard. In addition, outcome-related factors such as the result and the presence of a clear explanation of the result. Finally, the objectors are asked about their perception of fairness, their level of satisfaction, their prior trust, and whether their trust has changed. The formal and informal objectors are asked the same questions, merely adjusted to the mode of participation (written or verbal). The complete list of interview items is included in [appendix 4.5](#). All interviews are recorded, provided with verbatim transcripts that are coded in both Atlas.ti and Excel. All answers are categorized per question in the two Excel-sheets (formal and informal encounters). This creates an complete overview of all the answers, through which overall patterns can be uncovered. The overview follows the structure of th interview items. For privacy purposes, surnames are immediately anonymized and all first names are pseudonymized. An overview of all codes is available as supplementary material.

4.7.2 Examining different modes of participation

This study also explores the effect of the set up of encounters on public trust. The comparison of two types of encounters is the starting point of the analysis of the determinants in table 4.3. Although participation has many forms, in this domain, two types are widespread: the formal and informal objection procedure. Both have precisely the same purpose: home owners inform the municipality that they do not agree with its decision, in this case the assessed value, to try and get it adjusted. However, the way in which the two objection procedures are set up differs. Table 4.4 displays their characteristics.

Table 4.4 Characteristics of the formal and informal procedure

Formal objection procedure	Informal objection procedure
Written procedure	Oral procedure
Mandatory nationally: General Administrative Law Act dictates rules, procedures and terms	Not obligatory for administrations: optional per municipality and local policies differ
Legal processing time: end of calendar year (up to 10 months)	Practical handling time: 1 day to 3 weeks
Dialogue does not take place in all cases (written documents are at the core of the procedure)	Dialogue takes place in all cases (conversation is at the core of the procedure)

Including both types of procedures offers the chance to uncover any differences in citizens' experiences with the encounters. Citizens may not have a single scheme of a fairness that they apply on all occasions, and the 'meaning of procedural justice changes in response to the nature of citizens' experiences' (Tyler, 2006, 131). Trust building opportunities could differ per type of procedure. Even though distributive and procedural fairness may be related, favourability and fairness are not identical and citizens may make distinct fairness judgments (Tyler, 1990, 117). Including both makes it possible to see if previous perceptions of government influence the way in which citizens encounter government.

Moreover, the starting point of public encounters is not neutral either and there may be a reciprocal relationship between the type of participation and public trust. Finally, practice too gains from more in-depth knowledge on different modes of participation and their effect on public trust as the informal procedure gains importance. In forthcoming changes to the General Administrative Law Act, which is still under consultation at the time of the completion of this dissertation, an obligation of informal contact is introduced that applies to all administrative law domains. The general idea is that it would better serve citizens.

4.7.3 Sample selection

Given strict confidentiality regulations in the tax domain, cooperation from municipalities is required to get in touch with objectors. Two comparable local authorities were prepared to request objectors to participate in the

study. The first is the municipality of Meierijstad, located in the middle of the country in the province of North-Brabant. It is a relatively young municipality, created in 2017 through a merger of multiple older villages. Adjacent to Meierijstad lies the tax authority ‘Belastingsamenwerking Oost-Brabant’ (BSOB) which carries out the WOZ for eight municipalities. This organisation entails several villages as well, such as the medium-sized municipality of Oss and smaller rural municipalities, such as Gemert-Bakel. In 2023, this organisation offered extensive possibilities for objecting by telephone, making it a suitable organisation to approach informal objectors. The informal option is not yet mandatory and, therefore, not available in every municipality. Although both organisations offered the formal as well as informal mode of participation, the practical choice was made to first interview all formal objectors in Meierijstad (January 2023, shortly after receipt of the written ruling over 2022) and then the informal objectors at BSOB (March 2023, shortly after receipt of the new tax assessment and the informal procedure). The impact of the choice not to interview a mix of formal and informal objectors in both organisations is considered limited. The procedures are organized similarly and the same result is intended with both procedures. Moreover, the organisations are considered comparable, even if one is an administrative agency. They are selected because of their proximity, their willingness to cooperate, and their equal general rating of ‘good’ by the national oversight agency, meaning they provide good quality property valuations and meet quality requirements for their work processes. The interviews are conducted in the public library, by telephone, or via video call, depending on what was possible or practical for the interviewee. A total of 25 respondents are interviewed: 12 formal and 13 informal objectors. The composition of the two samples is displayed in table 4.5 below.

Table 4.5 Sample composition

Procedure	The value was adjusted	The value was not adjusted
Formal objection procedure January 2023 (written procedure in 2022)	5 interviews	7 interviews
Informal objection procedure March 2023 (by telephone in 2023)	6 interviews	7 interviews