

**Affective Influences in Pro-Environmental Policy Support: The Role of Climate Guilt and  
Public Participation**

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### **Abstract**

This study investigates the interplay between public participation, contribution, guilt, and policy acceptance within the context of pro-environmental policies. It aims to close the research gap of affective factors potentially influencing political decision-making largely having been disregarded, by illuminating the influence of feelings of climate guilt on policy acceptance. In that sense, I hypothesised that higher participation in decision-making procedures is associated with lower policy acceptance mediated by the negative effect of perceived subjective contribution on feelings of climate guilt. However, no main effect of neither public participation nor climate guilt on policy acceptance was found. However, there was a significant decrease in feelings of guilt, even though that did not prove to be related to an individual's perceived contribution. As this study has relatively low power, its findings might still be indicative of meaningful insights. They complicate theories of political decision-making by highlighting the importance of affective factors. Thus, understanding the dynamics this study is trying to investigate can enhance theoretical insights and inform practical strategies to increase public support for policies mitigating climate change.

*Keywords:* Democratic Decision-Making, Policy Acceptance, Public Participation, Climate Guilt, Geothermal Heating

## **Affective Influences in Pro-Environmental Policy Support: The Role of Climate Guilt and Public Participation**

Climate change has proven to pose devastating threats to people's lives and health (Jawad Ahmad, 2022). Some researchers have even considered it the largest collective action problem the world has ever faced (McGrath, 2021). Its negative effects are increasing in severity, for example, within the last 25 years, heat which corresponds to more than 2.8 billion Hiroshima bombs has been amassed (Alnaser, 2022). Even though those direct effects are horrendous, the climate crisis is also a humanitarian crisis: it has led to violations of human rights, increased displacements and the spread of diseases, disrupts livelihoods, and worsens public global health (United Nations, 2021). If the necessary steps to combat climate change are not taken, those effects will worsen, so significant decisions must be made (Jawad Ahmad, 2022).

### **The Role of Policies in Combatting Climate Change**

While identifying and understanding climate change is a scientific problem, addressing it and trying to combat its effects is a social and deeply political problem (McGrath, 2021). More specifically, in fighting the adverse effects of climate change, the importance of developing and implementing climate policies has been emphasised (Akanwa et al., 2019; Palm, 2020; Mudaliyar et al., 2022). Now, those policies cannot just be decided upon by the people in power, because living in a democratic society, citizens' approval is central to virtually every act of politics, among which the decision and implementation of policies (Lyons et al., 2019; Vilchis & Roman, 2010). Especially in current times, which have been presented as posing a threat to democratic values (Thurau, 2024; International IDEA, 2023), it is therefore crucial that the individuals inhabiting a country agree with their government's decisions. Hence, public approval of policies ensures the representation of public preferences, promotes responsive governance,

and enhances the legitimacy of decision-making processes (Seyd et al., 2021) and policy congruence (Matsuaka, 2006), all of which are aspects crucial to democracy as such (Page, 1983).

Thus, it is very important for levels of policy acceptance to be high and ensuring they are has been deemed indicative of good politics (Grelle & Hofmann, 2019; Gale, 2018). Policy acceptance is defined as the extent to which citizens endorse public policies and are willing to embrace and support them (Yaakob et al., 2023). Policy acceptance has been discussed as a crucial factor in the successful implementation and effectiveness of public policies aimed at behaviour change (Grelle & Hofmann, 2019). Therefore, political research has set out to identify variables improving policy acceptance, one of which being public participation.

### **The Importance of Public Participation**

Participation refers to the act of taking part in a particular activity or process, which involves engaging in an activity intending to shape its outcome (Krane et al., 2021). Public participation in policymaking is defined as “participation in designing, forming, and implementing the law, both individually and in groups, and actively [...]determining public policies or laws and regulations that are appropriate within the dynamics of society” (Gusman & Syofyan, 2023; p. 134). In previous studies, public participation has been found to have a positive effect on policy acceptance (Jacquet, 2015; Perlaviciute et al., 2023; Musall & Kuik, 2011). This effect was mediated by different variables, some of which include perceived fairness (Liu et al., 2020; Gross, 2007), trust (Devine-Wright, 2017; Liu et al., 2019), or decision favourability (Mertins & Albert, 2015). Contrastingly, other researchers reported no or even a negative effect of public participation on policy acceptance (Liu et al., 2020).

### **The Influence of Affective Factors**

Those contradictory findings may indicate the presence of another factor influencing the relationship between public participation and policy acceptance. This study proposes that one of such factors could be of affective nature, because previous behavioural scientific research predominantly focuses on cognitive factors, such as public perceptions, as predictors of policy acceptance (Zawadzki et al., 2022; Ejelöv & Nilsson, 2020). This tendency seems curious considering that even though humans are generally understood as rational beings, it has been demonstrated by various scholars that especially when making a decision, it is oftentimes not rational, but rather affective information which guides the decision (Sofi et al., 2023; Caviola et al., 2020). One specific emotion that has been found to be related to both policy acceptance as well as the problem of climate change is guilt (Patel & Smith, 2018; Romanini & Pavan Detoni, 2014).

Guilt is a moral emotion, meaning that it is elicited through a violation of internalised or personal values or social norms (Bedford et al., 2011). In the context of this paper, guilt regarding environmentalism (i.e., climate guilt) occurs when people feel like they have not acted in accordance with personal or social standards of environmentally friendly behaviour (Ágoston et al., 2022). Generally, moral emotions were found to have a profound impact on thoughts, feelings, and behaviours of individuals (Halperin & Schori-Eyal, 2019). Further, Halperin and Schori-Eyal (2019) found specifically guilt to have a positive effect on policy acceptance. That is, the guiltier someone felt about an issue, the more likely they were to accept policies that are supportive of solving the guilt-eliciting issue.

However, it has also been argued that feelings of guilt can lead to decreased policy acceptance, depending on the coping mechanisms employed to deal with said guilt (Bassan-Nygate & Heimann, 2024). Indeed, another study found that while there are functional - i.e.,

guilt-decreasing - mechanisms of coping with guilt, some individuals also repress and actively ignore those feelings and the issues that bring them about (Luck & Luck-Sikorski, 2022). This can then translate into disengagement with policy issues, which ultimately leads to decreased policy acceptance (Manning, 2015). Contrastingly, acknowledging guilt and confronting one's own responsibilities that arise from it can be considered a functional mechanism to cope with feelings of guilt (Luck & Luck-Sikorski, 2022). In the context of alleviating the negative consequences of climate change through putting in place pro-climate policies, those functional coping mechanisms manifest for example as participating in the decision-making procedure bringing about such policies.

However, this relationship between guilt and public participation is not entirely straightforward. That is, previous research has argued that there is a crucial difference between participating and contributing in relation to feelings of guilt (Dickson, 1982). Contribution refers to the “act of actively providing input or resources towards a particular goal or activity” (Hu et al., 2022; p. 4). Hence, while participation emphasises the active involvement and engagement in the activity or process and the mere actions that someone performed, contribution focuses on the valence and importance of the input or resources provided (so for example one's actions in relation to what others have done and taking into account the consequences of one's actions). Here, perceived contribution is operationalised as the subjects' perception of whether they have contributed to alleviating the consequences of climate change (rather than just having taken part in but not actually having committed a restitutive action, i.e., one that restores what has been broken and whose importance has been demonstrated elsewhere (Aaltola, 2021; Feder, 2022)). Generally, participation has been shown to be positively associated with perceived contribution, in fact, participation has even been presented as what enables individuals to contribute

(Madumere, 2016). Thus, it seems likely that higher extents to which people participate lead to higher levels of perceived contribution.

Key mechanisms to alleviating guilt have further been found to be of comparative nature (Bedford et al., 2011). That means that individuals compare their own thoughts and behaviours to those of others, to infer from that their – what they deem appropriate – level of guilt. This suggests that participating in decision-making procedures in which not everyone participates, can constitute a condition upon which individuals may decrease their level of guilt. That is related to the distinction between participation and contribution presented above: both contribution as well as guilt do not just objectively take into account what one has done, but also how this relates to others' actions.

Guilt was further found to be related to actions, whereas the domain of personality or self-identity was rather related to shame (Schmader & Lickel, 2006; Aaltola, 2021). As participation and contribution are both active processes, they can be understood as actions of the participants. Hence, trying to understand the relationship between participation and guilt and how that influences policy acceptance can potentially explain the contradictory findings regarding both the main effect of guilt and that of public participation on policy acceptance.

## **Hypotheses**

Thus, the present study's focus on understanding affective influences on policy acceptance, more precisely that of the emotion of guilt, can lead to meaningful insights. This study aims to close that research gap by looking at the emotional mechanisms possibly at play in public participation and how that influences the relationship between participation and policy acceptance.



Therefore, my main hypothesis of this research project is that higher participation in decision-making procedures is associated with lower policy acceptance mediated by the negative effect of perceived subjective contribution on feelings of climate guilt (H1)., such that I expect higher levels of climate guilt to be associated with higher levels of policy acceptance (H2), higher levels of participation in decision-making procedures to be associated with higher perceived subjective contribution (H3), and lastly, that higher perceived contribution is associated with a decrease in feelings of climate guilt after having contributed.

## **Method**

### **Participants**

An a priori power analysis conducted with the tool G\*power by Dusseldorf university showed a minimum required sample size of 250 in order to be able to detect a medium effect size with a power of  $\beta = .8$  at  $\alpha = .05$ . To account for attrition and/or exclusion of participants, we set our intended number of responses to 300.

Of the 172 respondents, 75 were excluded due to failing the attention check and one person because they did not finish the study, leading to  $N = 96$  participants. The convenience sample partially consisted of 53 first year psychology students who are required to participate in psychological studies on the platform SONA. In return for their participation, these students gained 0.7 out of 38 credits necessary for passing this requirement. The other 43 participants were other students at the same faculty, who were invited to participate by the researchers using snowball sampling in their personal and professional circles. Of the participants,  $N = 23$  (24%) were male,  $N = 69$  (71.9%) were female, and  $N = 4$  (4.2%) reported another gender identity. The mean age among the participants was  $M = 21.14$  ( $SD = 2.69$ ).

### **Study Design & Procedure**

An online vignette study was conducted in Qualtrics XM, using a between-subjects design with five different conditions, where each condition corresponded to a certain type of decision-making procedure (see Table 1 for an overview of all conditions). Data collection was carried out by making the questionnaire available on SONA and distributing the online link to the study from the 16<sup>th</sup> of May until the 16<sup>th</sup> of June 2024.

Before filling out the online questionnaire (see appendix A for full questionnaire), participants' informed consent was obtained, after which we collected some background information, including demographics, their familiarity with various energy sources, and their feelings of climate guilt. Next, participants were asked to "imagine that in order to combat climate change, the BSS faculty wants to implement deep geothermal heating to reduce its carbon footprint". Participants were then randomly allocated to one of the five conditions by being presented with a vignette, which outlined different decision-making procedures (see appendix B). There were 25 participants in the top-down condition, 16 in the referendum one with expert review, 18 in the one with faculty review, 16 in the standard referendum, and 21 in the condition of a faculty assembly. In the vignettes, the descriptions of procedure were kept the same as much as practically possible, varying only on the variables of interest, such as different degrees of public participation.

Next, participants answered several procedure-level perception measures, which are not relevant to my hypotheses and will therefore be disregarded in the following analysis. Then, participants were presented with the second part of the scenario, which elaborated on the outcome of the procedure, namely, the decision to implement the geothermal policy. They were asked to imagine that they participated in the respective decision-making procedure, before they

were to indicate the extent to which they felt like they participated in the decision-making and contributed to the decision, given the characteristics of their certain procedure.

Lastly, participants answered the same questions about climate guilt like they did in the beginning, given that they now participated in the decision-making procedure corresponding to the condition they were in.

**Table 1**

*Description of the five conditions.*

condition	description
top-down procedure	The faculty board discusses the policy and subsequently decides whether it will be implemented. Every board member can vote on the matter.
standard referendum	The faculty board discusses the policy and subsequently decides whether it will be implemented. All BSS students can vote on the matter.
referendum with expert review pamphlet	Before taking part in the referendum, all students are provided with an information pamphlet which lists the advantages and disadvantages of geothermal heating. This pamphlet was developed by an expert review panel.
Referendum with student review pamphlet	Before taking part in the referendum, all students are provided with an information pamphlet which lists the advantages and disadvantages of geothermal heating. This pamphlet was developed by a student review panel composed of 50 students who were randomly selected from the entire faculty. Supported by various experts, the panel members met for several consecutive weekends to discuss the policy.

condition	description
student assembly	A student assembly gets to decide on the implementation of the policy. This representative group consists of 50 students who were randomly selected from the entire faculty. Supported by various experts, the assembly members met for several consecutive weekends to discuss the policy, before they all vote on whether to implement geothermal heating at the BSS faculty.

## Measures

*Policy Acceptance* was measured on a 7-point Likert scale ranging from 1 (very unacceptable) to 7 (very acceptable), on which participants indicated the extent to which they would agree with the decision to implement deep geothermal heating at the faculty, given the scenario they have read.

### *Attention Check*

Participants were asked to select “completely agree” (7) and were excluded from the data set if they failed to do so.

*Climate Guilt* was assessed by asking participants to indicate the extent to which they agree with the following three statements on a 7-point Likert scale ranging from 1 (do not agree at all) to 7 (fully agree): “I feel guilty for not paying enough attention to the issue of climate change”, “I feel like I should do more than I have done to address the problem of climate change”, and “I feel I sufficiently fulfil my duty to alleviate climate change”. The last statement is reverse-coded, meaning that high values correspond to low levels of climate guilt, while high values on the first two statements indicate higher levels of climate guilt. Those three items were combined to a scale with Cronbach’s alpha value of  $\alpha = .69$ . When participants were asked about their feelings of climate guilt for the second time, the exact same items were used and the question was introduced emphasising the participant’s hypothetical participation in the particular

decision-making procedure, for example in the assembly condition: “Considering that you were selected as a member in the assembly, what would you be feeling in relation to climate change afterwards?”

*Perceived participation* was measured by one item, asking the study’s participants: “On a scale from 1 to 7, to what extent do you feel you would have had participated in the decision-making process leading up to the implementation of deep geothermal heating at the faculty?”. Again, the scale ranged from one to seven, corresponding to “not at all participated” and “participated a lot” respectively.

*Perceived contribution* was measured by a scale with a Cronbach’s Alpha value of  $\alpha = .87$ . Participants were asked to indicate their agreement with the two items constituting the scale on a 7-point Likert scale ranging from 1 (do not agree at all) to 7 (fully agree). Those items were introduced emphasising the participant’s participation in the decision-making procedure corresponding to their condition, for example “My voting in the referendum...” for the referendum condition or “My student review panel membership as well as my voting in the referendum...” for the referendum with student review condition. The items that then completed the statements were “... would have helped advance remedies against global warming.” and “...would be a considerable contribution to the solving of climate change.”

## Results

### Descriptives

### Correlations

The correlation matrix is presented below (see Table 2). Guilt Change is a variable that was computed by subtracting the value of climate guilt that was measured at the second time from the initial value of climate guilt. There is a significant correlation between this computed

variable and both the second as well as the first measure ( $r = .37, p < .001$  and  $r = -.60, p < .001$ ) respectively. A moderate positive correlation was also found between the first measure of guilt and perceived contribution ( $r = .24, p = .04$ ), indicating that higher contribution is associated with higher levels of climate guilt at the first time of measurement and vice versa. Contribution and participation are further moderately correlated ( $r = .54, p < .001$ ), suggesting that higher levels of participation are associated with higher levels of perceived contribution. Lastly, a moderate positive correlation was found between the measures of guilt at the first and the second point in time ( $r = .52, p < .001$ ), which indicates that higher initial levels of guilt are associated with higher levels of guilt after hypothetically having participated in the decision-making procedure.

**Table 2**

*Correlation Matrix.*

		Guilt Change	Contribution	Participation	Policy Acceptance	Guilt Post	Guilt Pre
Guilt Change	Pearson	1.00	-.16	-.01	-.05	.37**	-.60**
	Correlation Sig. (2- tailed)		.17	.89	.60	<.001	<.001
Contribution	Pearson	-.16	1.00	.54**	.16	.11	.24*
	Correlation Sig. (2- tailed)		.17	<.001	.17	.33	.04
Participation	Pearson	-.01	.54**	1.00	.15	.15	.14
	Correlation						

	Sig. (2-tailed)	.89	<.001		.14	.14	.16
Policy Acceptance	Pearson Correlation	-.05	.16	.15	1.00	-.06	.00
	Sig. (2-tailed)	.60	.17	.14		.56	.98
Guilt Post	Pearson Correlation	.37**	.11	.15	-.06	1.00	.52**
	Sig. (2-tailed)	<.001	.33	.14	.56		<.001
Guilt Pre	Pearson Correlation	-.60**	.24*	.14	.00	.52**	1.00
	Sig. (2-tailed)	<.001	.04	.16	.98	<.001	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

*Note.* See Appendices C and D for assumption checks.

## H2: Main Effect of Climate Guilt

To test the hypothesis that higher levels of climate guilt are associated with higher levels of policy acceptance, I conducted a linear regression analysis of levels of climate guilt as a predictor for policy acceptance. Results show a small negative correlation between the two variables of  $r = -.03$ . Additionally, the regression model predicting policy acceptance based on feelings of climate guilt was found to not be significant with  $F(1, 95) = .11$ , and  $p = .74$ . Thus, there is no statistical evidence supporting that there is a main effect of climate guilt on policy acceptance.

### H3: Contribution and Participation

To test the hypothesis that higher levels of participation are associated with higher levels of contribution, I conducted analyses of both the correlations between those variables as well as a regression model predicting perceived contribution based on levels of participation. There is a moderate correlation of  $r = .52$  between contribution and participation variables, which is significant at  $p < .05$ . The linear regression model predicting contribution based on participation was also found to be significant at  $F(1, 73) = 29.87$  and  $p < .001$ . In this regression model, participation was identified as a significant predictor, which can be seen in Table 3.

**Table 3**

*Coefficients of the Linear Regression Model Predicting Contribution Based on Participation.*

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.41	.37		6.44	<.001
Participation	.43	.08	.54	5.47	<.001

a. Dependent Variable: Contribution

*Note.* See Appendices C, E, and F for assumption checks.

### H4: Perceived Contribution and Feelings of Guilt

The fourth hypothesis is that high perceived contribution is associated with a decrease in feelings of climate guilt after having contributed. To analyse this, I first conducted a paired-samples t-test to establish whether there is in fact a decrease in feelings of climate guilt. As shown in Table 4, it can be concluded that there is indeed a significant difference between initial



levels of guilt and the levels of guilt after hypothetically having participated in the decision-making procedure with  $t = 5.58$ , and  $p = <.001$ . As the mean difference is positive when subtracting the second from the first measure of guilt, it can be concluded that the significant difference that was observed corresponds to a decrease in feelings of guilt.

**Table 4**

*Paired Samples Test: Pre-Post Guilt.*

Paired Differences						Significance			
95% Confidence Interval of the Difference						t	df	One-sided p	Two-sided p
Mean	Std. Deviation	Std. Error Mean	Lower	Upper					
Guilt Pre-Post	.65	1.13	.01	.42	.88	5.58	96	<.001	<.001

*Note.* See Appendix G for assumption checks.

I then conducted a linear regression analysis with contribution as a predictor and the change in guilt as the dependent variable. This regression model was found to be not significant at  $F(1, 73) = 1.96$  and  $p = .17$ . Hence, there is no evidence that the level of contribution predicts the change in feelings of climate guilt.

### **Main Hypothesis**

To test whether higher participation in decision-making procedures is associated with lower policy acceptance mediated by the negative effect of perceived subjective contribution on feelings of climate guilt, I first performed an analysis of variance (ANOVA) on the dependent, independent, and potentially mediating variables with the study's conditions as the factor. That

is, I compared the means of policy acceptance, participation, contribution, and change in guilt across the five different conditions respectively (see Table 5; the bold values are the ones that significantly differ from the other means).

**Table 5**

*ANOVA Results per Condition on Participation, Contribution, Guilt Change, and Policy Acceptance.*

Condition		Participation	Contribution	Guilt Change	Policy Acceptance
Top-Down	Mean	<b>2.76</b>	3.75	-.69	5.28
	Std. Deviation	1.71	2.18	1.11	1.37
Referendum + Expert Review	Mean	4.19	4.31	-.58	5.25
	Std. Deviation	1.64	1.38	1.01	1.18
Referendum + Faculty Review	Mean	<b>4.89</b>	4.81	-.83	5.50
	Std. Deviation	2.17	1.20	1.59	1.29
Standard Referendum	Mean	4.25	3.91	-.52	4.75
	Std. Deviation	1.48	1.38	1.03	1.44
Assembly	Mean	<b>4.62</b>	4.31	-.57	4.62
	Std. Deviation	1.43	1.26	.93	1.32
Total	Mean	4.05	4.31	-.65	5.08
	Std. Deviation	1.85	1.36	1.13	1.34

*Note.* See Appendices H and I for assumption checks.

Results showed that the extent to which people felt like they participated in the decision-making procedure did significantly differ between the conditions at  $F(4, 95) = 5.33, p < .001$ . A post hoc test using the Tukey method revealed that there are significant differences in perceived participation between the top-down condition and both the referendum with student review pamphlet ( $p = .001$ ) as well as the faculty assembly condition ( $p = .004$ ). However, a linear regression model including participation as a predictor for policy acceptance was not significant at  $F(1, 94) = 2.18$ , and  $p = .14$ . Hence, participation is not a significant predictor for policy acceptance (see Table 6).

**Table 6**

*Coefficients of the Linear Regression Model Predicting Policy Acceptance.*

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.64	.33		14.12	<.001
Participation	.11	.07	.15	1.47	.14

a. Dependent Variable: Policy Acceptance

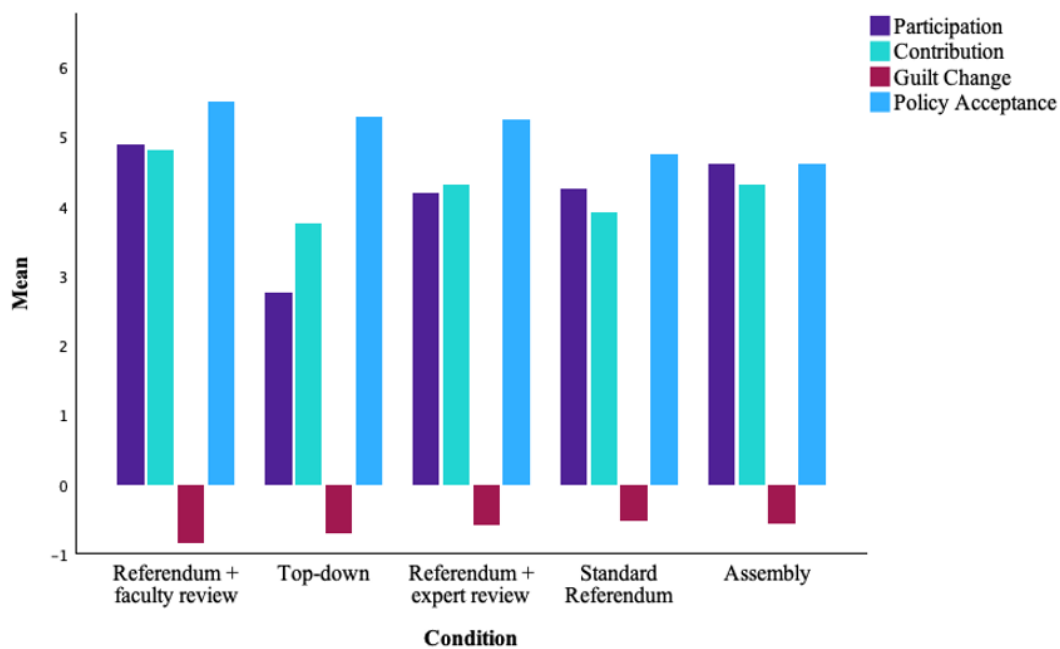
*Note.* See appendices C, E, and F for assumption checks.

Furthermore, there were no significant differences between the values of policy acceptance between the conditions ( $F(4, 95) = 1.54; p = .198$ ). Similarly, no significant differences were detected in mean values of contribution and guilt change across the different conditions at  $F(4, 70) = 1.14; p = .35$  and  $F(4, 95) = .2; p = .93$  respectively.

Even when comparing the values of policy acceptance between the conditions, there is no linear association between policy acceptance and participation to be found. For example, the referendum with the student review panel had highest participation scores, and it was also the condition in which the mean policy acceptance was highest. However, the second highest mean value of policy acceptance was recorded for the top-down condition, which had the lowest mean score for participation (see Figure 1).

**Figure 1**

*Mean Values of Participation, Contribution, Guilt Change, and Policy Acceptance per Condition.*



Overall, the data revealed no statistical evidence for this study's main hypothesis, because there was no main effect of participation on policy acceptance. Further, the only significant relationship that is part of the mediation pathway is the one between participation and

contribution (H3). All the other relationships that were hypothesised in this study were found to not be significant.

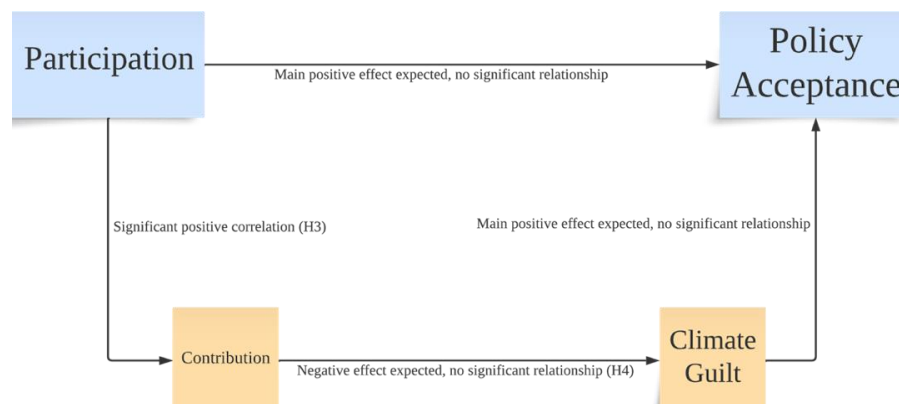
## Discussion

### Summary of Key Findings

Overall, statistical analyses of our data revealed only two significant findings. Firstly, there is in fact a significant positive moderate correlation between participation and contribution, and participation has been identified as a significant predictor for contribution in a linear regression model (H3). Secondly, it has become evident that there is a decrease in subjective feelings of climate guilt after hypothetically having participated in the decision-making procedure which brought about a pro-environmental policy. However, we were not able to attribute this decrease in climate guilt to a participant's contribution as hypothesised (H4), because there was no significant correlation between those two variables and the linear regression model with contribution predicting the change in climate guilt was not significant. Additionally, results showed neither a main effect of level of participation (H1), nor a main effect of feelings of climate guilt (H2) predicting policy acceptance (see Figure 2).

**Figure 2**

*Model Result Overview.*



## **General Limitations**

Our study was subject to several limitations and future research should set out to replicate this study while accounting for them. Firstly, our data set consisted of only 96 participants as opposed to the 300 we were initially opting for. Because of this significantly smaller sample size, our current study only has a power of  $\beta = .47$ . This means that the probability of not detecting an effect even when there is one is bigger than the probability of finding that true effect.

Another limitation of our study is its low external validity. At the same time, this can be considered a strength inasmuch as there was a trade-off between external and ecological validity. That is, we constrained the vignettes to a scenario that is very realistic, and participants could easily conceive of it actually happening at their own faculty. However, we were therefore only able to recruit participants that studied at the same faculty. Those people did not just constitute a WEIRD sample (i.e., individuals from countries that are western, educated, industrialised, rich, and democratic), but they are an even more homogenous group, which can be expected to limit our study's external validity. This is especially relevant, because the mean score of feelings of climate guilt - one of the central variables in this study - was quite high in the sample (4.51 out of 7), while only 51.2% of the general public report feelings of climate guilt (GlobeScan, 2023). Therefore, it can be concluded that there are relatively big differences in the levels of the variable climate guilt, which makes it even more questionable if this study's results can be generalised to other populations.

## **The Role of Climate Guilt**

This study's emphasis on the potential influence of climate guilt on policy acceptance has several important theoretical implications. Firstly, it adds information to an oftentimes neglected part of research on policy acceptance, namely the influence of affective factors. Even though

results did not show a main effect of feelings of guilt on policy acceptance, it became apparent that there was a significant decrease in feelings of climate guilt after hypothetically having participated in the decision-making procedure. However, statistical analyses showed that this decrease in feelings of climate guilt could not be attributed to the increased perceived contribution. This may potentially be due to the fact that the sample was too small to detect the effect of contribution on change in climate guilt feelings. As this is not for certain, future research should set out to explain this decrease in feelings of climate guilt. In line with that, it could for example be hypothesised that when someone has low levels of policy acceptance but high initial values of climate guilt, they might disengage with the issue all together to avoid the frustration related to the policy they don't agree with. This might in turn lead to lower feelings of climate guilt at the second point in time of it being measured. To solve this puzzle, future research should emphasise the importance of affective factors in political processes and investigate different emotions, among those guilt.

Having demonstrated that many studies have shown how important affective factors are in decision-making (Sofi et al., 2023; Caviola et al., 2020), the practical relevance of understanding the relationship between emotions such as climate guilt and acceptance of pro-environmental policies is evident. However, this focus on affective influences may introduce an ethical dilemma. If researchers were to identify a certain emotion with a strong effect on decision-making, politicians could try to intentionally activate that specific emotion and thereby manipulate the citizens to make a certain decision. For example, if guilt was found to have a strong positive effect on policy acceptance, they could frame certain issues in a campaign in such a way that activates feelings of guilt in the individuals that participate in the decision-making procedure. In that sense, a seemingly democratic decision could be turned into a significantly

less democratic one, so one has to be careful of that regarding this topic's practical implications. This is especially important considering that the media have previously been accused of presenting issues related to climate change in a certain way that would elicit specific emotions (Zimmermann et al., 2014).

The last aspect to be discussed regarding the role of climate guilt is that another of this study's limitations is – at least partly – its internal validity. The reliability analysis of different scales that it employed revealed that the scale combining the items measuring climate guilt has a Cronbach's alpha of .69, which is generally considered to be rather low. One potential reason for that is that the items used in this study are not part of a scale that measures (climate) guilt and that has been validated previously. Therefore, future research could replicate this study using a scale combining items that measure climate guilt and that has a higher reliability.

### **The Role of Public Participation**

Also the analysis of public participation led to insightful theoretical implications. That is, the results of this study oppose the numerous previous findings that participation has a significant positive effect on policy acceptance (Jacquet, 2015; Perlaviciute et al., 2023; Musall & Kuik, 2011). In the present study, there was no linear and straight-forward relationship between those two variables. One possible explanation for that is the nature of the decision-making procedures that were used. Even though there were significant differences in the extent to which people felt like they would have participated, there may be other properties of a certain decision-making procedure that counteract the positive effect of participation. For example, in the assembly condition, the mean value of participation was the second highest compared to all other conditions, however, policy acceptance was the lowest. That could be explained by other factors such as perceived legitimacy. This could be lower for the assembly condition, because



only the 50 assembly members can vote on the decision whether to implement geothermal heating at the faculty, while in the referendum conditions everyone can vote. This low perceived legitimacy may then be associated with lower policy acceptance despite the high levels of participation.

Another relevant theoretical insight is that the distinction between participation and contribution employed in this study seems sensible. While those variables have proven to be significantly related, contribution has a higher correlation with all other variables that are part of the analysis than participation does (cf. Table 2). Therefore, differentiating between those two variables may allow a more sophisticated interpretation of results.

The variables of participation and contribution further shed a light on some other of our study's strengths. That is, the internal reliability of both the scales were very high. Furthermore, there were significant differences in the extent to which the respondents felt like they would have participated in the different decision-making procedures. Therefore, the manipulation by means of the vignettes ensuring that participation can constitute an independent variable was successful. It can therefore further be concluded that the choice of decision-making procedures was sensible, as it has been shown that they are perceived to involve differing degrees of participation.

It has been demonstrated in the introduction of this thesis that the topic of understanding factors that influence policy acceptance is highly practically relevant. Living in a democratic society, it is not just desirable, but essential to its legitimacy, that citizens approve of what those in power decide (Seyd et al., 2021; Lyons et al., 2019; Vilchis & Roman, 2010; Page, 1983). One means that research in political science has identified as increasing policy acceptance is public participation (Grelle & Hofmann, 2019). Thus, understanding how public participation translates into policy acceptance – or if it does at all – is highly practically relevant. This study has

presented significant differences in the extent that people feel like they participate in certain decision-making procedures, and even though no significant relation between participation and policy acceptance was found, this might be due to its underpowered nature. In fact, previous research has pointed towards a main effect of increased participation translating into increased policy acceptance (Jacquet, 2014; Perlaviciute et al., 2023; Musall & Kuik, 2011). Our results are therefore already meaningful inasmuch as they identified that a referendum with a review panel constituted by those individuals that are affected by the decision (in the study's context the people at the faculty) reaches highest levels of policy acceptance. This can be directly translated into the process of bringing about policy decisions in real life. Politicians could take into account the effects of participation and choose a decision-making procedure corresponding to the desired ones.

By highlighting the largely overlooked affective dimensions, this study profoundly reshapes our understanding of policy acceptance, urging future research to further investigate the emotional underpinnings of policy support. In essence, this study challenges conventional scientific understanding, prompting policymakers to rethink how participatory processes are designed to truly enhance democratic legitimacy and policy acceptance.

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## Appendices

### Appendix A

*Online Questionnaire Uploaded to Qualtrics XM*

# [Free] BSc thesis 24.II - Geothermal at BSS

---

#### Start of Block: Informed consent

Tim\_cons Timing  
First Click (1)  
Last Click (2)  
Page Submit (3)  
Click Count (4)

---

Informed Many thanks for your interest in this study. Before you decide to participate, and give your informed consent, please read the information provided via the link below:

[Information for participants](#)

---

Consent text •I have read the information about the research. I have had enough opportunity to ask questions about it.

- I understand what the research is about, what is being asked of me, which consequences participation can have, how my data will be handled, and what my rights as a participant are.
  - I understand that participation in the research is voluntary. I myself choose to participate. I can stop participating at any moment. If I stop, I do not need to explain why. Stopping will have no negative consequences for me.
  - Below I indicate what I am consenting to.
-

Consent partic Consent to participate in the research:

- Yes, I consent to participate (1)
- No, I do not consent to participate (2)
- 

Consent proc Consent to processing my personal data:

- Yes, I consent to the processing of my personal data as mentioned in the research information. (1)
- No, I do not consent to the processing of my personal data. (2)

**End of Block: Informed consent**

---

**Start of Block: Background measures**

Tim\_BG Timing  
First Click (1)  
Last Click (2)  
Page Submit (3)  
Click Count (4)

---

Intro Before we start the study, we would like to know a little bit more about who you are. Please answer the following questions as truthfully and accurately as possible.

---

Age Please indicate your age:

---

Gender Please indicate your gender

- Male (1)
- Female (2)
- Other (3)
- Prefer not to say (4)
- 

Nationality Please indicate your nationality:

---

Study Which program (Psychology, Sociology, ...) do you study at the BSS faculty?

---

Year And which year of the program are you in?

---

Values Below are several statements that describe a certain hypothetical person; specifically, about their values, what they generally find important in life.

On a scale from 1 to 7, please indicate the extent to which you consider this person to be **dis/similar to you yourself.**

It is important to this person ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... to prevent environmental pollution (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... to protect the environment (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... to respect nature (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... to be in unity with nature (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... for everyone to have equal opportunities (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... to take care of those people who are worse off (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... to have fun (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... to enjoy life's pleasures (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... to be influential (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... to work hard and be ambitious (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---



Familiarity Below are several energy sources and/or technologies. On a scale from 1 to 7, please indicate the extent to which you are familiar with them.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Wind turbines (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Natural gas (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deep geothermal heating (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oil (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Solar panels (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coal (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hydrogen (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nuclear energy (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

ecoguilt\_pre Next, we are interested in your feelings in relation to climate change. On a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements.

I feel ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... guilty for not paying enough attention to the issue of climate change (1)	0	0	0	0	0	0	0
... like I should be doing more than I have done to address the problem climate change (2)	0	0	0	0	0	0	0
... I sufficiently fulfil my duty to alleviate climate (3)	0	0	0	0	0	0	0



Conformity Finally, we are interested in how you generally relate to others. On a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
I tend to go along with my friends when I have to quickly decide on something (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often ignore the advice of my peers (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fitting in with my group is important to me (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't care what people in my inner circle think of me (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

Page Break 

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Tim\_outro  
 Timing First  
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 Last Click (2)  
 Page Submit (3)  
 Click Count (4)

---

Outro On the next page, you will be presented with a description of a certain situation. Please read the text carefully. Afterwards, you will be asked to answer some questions about it.

End of Block: Background measures

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Start of Block: Topdown

Tim\_Vign\_TD Timing  
 First Click (1)  
 Last Click (2)  
 Page Submit (3)  
 Click Count (4)

---

Proc\_topdown Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by the **BSS faculty board**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a board vote. **All board members can vote on whether the policy will be implemented.**

End of Block: Topdown

---

Start of Block: Ref\_no

Tim\_Vign\_ref  
 Timing First Click  
 (1)  
 Last Click (2)  
 Page Submit (3)  
 Click Count (4)

---

Proc\_ref\_no Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented.**

End of Block: Ref\_no

---

Start of Block: Ref\_exp

Tim\_vign\_ref\_exp  
 Timing First Click (1)  
 Last Click (2)  
 Page Submit (3)  
 Click Count (4)

---

Proc\_ref\_exp Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented.**

Before the referendum takes place, **all students are provided with a voter pamphlet**; a one- page report that summarises pros and cons of implementing deep geothermal heating at the faculty.

This voter pamphlet was **produced by an expert review panel**.

Specifically, various experts were invited to take part in the panel. The **panel members met for several consecutive weekends to review** the geothermal policy proposal. After discussing amongst each other, the panel members summarised the pros and cons that they deemed most important into a one-page pamphlet.

End of Block: Ref\_exp

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Start of Block: Ref\_stud

Tim\_vign\_ref\_stud    Timing  
 First Click (1)  
 Last Click (2)  
 Page Submit (3)  
 Click Count (4)

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Proc\_ref\_stud Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented.**

Before the referendum takes place, **all students are provided with a voter pamphlet**; a one- page report that summarises pros and cons of implementing deep geothermal heating at the faculty.

This voter pamphlet was **produced by a student review panel**.

Specifically, students were invited to take part in the panel. **50 students were randomly selected from the entire faculty, by lottery**. This lottery used quotas to select a ‘mini-public’ that mirrors the wider population: the panel’s percentages of different groups of people (of different age, gender, nationality, etc.) were similar to these groups’ percentages in the broader population. For example, if 30% of the faculty are first year students, about 30% of the assembly members are also first year students.

Supported by various experts, the **panel members met for several consecutive weekends to review** the geothermal policy proposal. After discussing amongst each other, the panel members summarised the pros and cons that they deemed most important into a one-page pamphlet.

End of Block: Ref\_stud

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Start of Block: CA

Tim\_vign\_CA Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

---

Proc\_CA Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **student assembly**.

Specifically, students were invited to take part in the assembly. **50 students were randomly selected from the entire faculty, by lottery**. This lottery used quotas to select a ‘mini-public’ that mirrors the wider population: the panel’s percentages of different groups of people (of different age, gender, nationality, etc.) were similar to these groups’ percentages in the broader population. For example, if 30% of the faculty are first year students, about 30% of the assembly members are also first year students.

Supported by various experts, the **assembly members met for several consecutive weekends to suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns deep *geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the assembly puts the *geothermal heating* option up for an assembly vote. **All assembly members can vote on whether the policy will be implemented.**

End of Block: CA

---

Start of Block: Inbetween measures decisionmakers

Inb\_intro The following questions are about *your thoughts about the situation described above.*

Before we ask you about the situation in general, we are interested in your perceptions of the people involved in the situation in particular.

On the top of each page, we will again present you with the description of the situation. You are free to reread it, in case this helps you answer the questions about it.

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Page Break



Tim\_DM Timing  
 First Click (1)  
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 Page Submit (3)  
 Click Count (4)

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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

Rep\_TD1 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by the **BSS faculty board**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a board vote. **All board members can vote on whether the policy will be implemented.**

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

Rep\_refl Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a

faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented.**

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Rep\_ref\_exp1 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented.**

Before the referendum takes place, **all students are provided with a voter pamphlet**; a one- page report that summarises pros and cons of implementing deep geothermal heating at the faculty.

This voter pamphlet was **produced by an expert review panel**.

Specifically, various experts were invited to take part in the panel. The **panel members met for several consecutive weekends to review** the geothermal policy proposal. After discussing amongst each other, the panel members summarised the pros and cons that they deemed most important into a one-page pamphlet.

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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Rep\_ref\_stud1 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns deep geothermal heating; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

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Supported by various experts, the **panel members met for several consecutive weekends to review** the geothermal policy proposal. After discussing amongst each other, the panel members summarised the pros and cons that they deemed most important into a one-page pamphlet.

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Perc\_decimak\_td The questions below are **about the board members that developed the policy.** On a scale from 1 to 7, please indicate the extent to which you dis/agree with the

I feel that *the faculty board members* ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... carefully weigh and balance different pros and cons of different policy options (1)	0	0	0	0	0	0	0
... carefully reflect on different environmental policies from different angles (2)	0	0	0	0	0	0	0
... are diverse (3)	0	0	0	0	0	0	0
... find the same things important in life as me (4)	0	0	0	0	0	0	0
... have the same values as I have (5)	0	0	0	0	0	0	0
... have considerable influence over the decision that is being made (6)	0	0	0	0	0	0	0
... can significantly steer the outcome of the decision-making process in a certain direction (7)	0	0	0	0	0	0	0
... are honest and sincere (8)	0	0	0	0	0	0	0

... take different interests into account (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... are competent (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... have the right knowledge and expertise (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... are similar to me (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... resemble BSS students at large (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... have the same policy preferences as I have (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... have the same policy preferences as BSS students (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... act in my interest (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... act in the interest of BSS students (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Tim\_Dm2  
 Timing First  
 Click (1)  
 Last Click (2)  
 Page Submit (3)  
 Click Count (4)

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 Display This Question:

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

Rep\_exp2 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented.**

Before the referendum takes place, **all students are provided with a voter pamphlet**; a one- page report that summarises pros and cons of implementing deep geothermal heating at the faculty.

This voter pamphlet was **produced by an expert review panel**.

Specifically, various experts were invited to take part in the panel. The **panel members met for several consecutive weekends to review** the geothermal policy proposal. After discussing amongst each other, the panel members summarised the pros and cons that they deemed most important into a one-page pamphlet.

-----  
 Display This Question:

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

Perc\_decimak\_exp The questions below are about the experts that developed the pamphlet. On a scale from 1 to 7, please indicate the extent to which you dis/agree with them.



I feel that *the experts in the review panel...*

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... carefully weigh and balance different pros and cons of different policy options (1)	0	0	0	0	0	0	0
... carefully reflect on different environmental policies from different angles (2)	0	0	0	0	0	0	0
... are diverse (3)	0	0	0	0	0	0	0
... find the same things important in life as me (4)	0	0	0	0	0	0	0
... have the same values as I have (5)	0	0	0	0	0	0	0
... have considerable influence over the decision that is being made (6)	0	0	0	0	0	0	0
... can significantly steer the outcome of the decision-making process in a certain direction (7)	0	0	0	0	0	0	0
... are honest and sincere (8)	0	0	0	0	0	0	0

... take different interests into account (9)	0	0	0	0	0	0	0
... are competent (10)	0	0	0	0	0	0	0
... have the right knowledge and expertise (11)	0	0	0	0	0	0	0
... are similar to me (12)	0	0	0	0	0	0	0
... resemble BSS students at large (13)	0	0	0	0	0	0	0
... have the same policy preferences as I have (14)	0	0	0	0	0	0	0
... have the same policy preferences as BSS students (15)	0	0	0	0	0	0	0
... act in my interest (16)	0	0	0	0	0	0	0
... act in the interest of BSS students (17)	0	0	0	0	0	0	0

Tim\_DM3  
 Timing First  
 Click (1)  
 Last Click (2)  
 Page Submit (3)  
 Click Count (4)

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 Display This Question:

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
 Displayed*

Rep\_stud2 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

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Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented.**

Before the referendum takes place, **all students are provided with a voter pamphlet**; a one- page report that summarises pros and cons of implementing deep geothermal heating at the faculty.

This voter pamphlet was **produced by a student review panel**.

Specifically, students were invited to take part in the panel. **50 students were randomly selected from the entire faculty, by lottery.** This lottery used quotas to select a 'mini-public' that mirrors the wider population: the panel's percentages of different groups of people (of different age, gender, nationality, etc.) were similar to these groups' percentages in the broader population. For example, if 30% of the faculty are first year students, about 30% of the assembly members are also first year students.

Supported by various experts, the **panel members met for several consecutive weekends to review** the geothermal policy proposal. After discussing amongst each other, the panel

members summarised the pros and cons that they deemed most important into a one-page pamphlet.

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
*Displayed*

Perc\_decimak\_stud The questions below are **about the students that developed the pamphlet.** On a scale from 1 to 7, please indicate the extent to which you dis/agree with them.

I feel that *the students in the review panel ...*

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... carefully weigh and balance different pros and cons of different policy options (1)	0	0	0	0	0	0	0
... carefully reflect on different environmental policies from different angles (2)	0	0	0	0	0	0	0
... are diverse (3)	0	0	0	0	0	0	0
... find the same things important in life as me (4)	0	0	0	0	0	0	0
... have the same values as I have (5)	0	0	0	0	0	0	0
... have considerable influence over the decision that is being made (6)	0	0	0	0	0	0	0
... can significantly steer the outcome of the decision-making process in a certain direction (7)	0	0	0	0	0	0	0
... are honest and sincere (8)	0	0	0	0	0	0	0

... take different interests into account (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... are competent (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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... have the same policy preferences as I have (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... have the same policy preferences as BSS students (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... act in my interest (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... act in the interest of BSS students (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Tim\_DM4  
 Timing First  
 Click (1)  
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 Page Submit (3)  
 Click Count (4)

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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
 Displayed*

Rep\_ref3 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

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After discussing amongst each other, the board puts the *geothermal heating* option up for a faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented.**

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
 Displayed*

Rep\_exp3 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

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**policy will be implemented.**

Before the referendum takes place, **all students are provided with a voter pamphlet**; a one- page report that summarises pros and cons of implementing deep geothermal heating at the faculty.

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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

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After discussing amongst each other, the board puts the *geothermal heating* option up for a faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented.**

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Supported by various experts, the **panel members met for several consecutive weekends to review** the geothermal policy proposal. After discussing amongst each other, the panel members summarised the pros and cons that they deemed most important into a one-page pamphlet.

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Perc\_decimak\_ref The questions below are **about the students that participate in the referendum.**  
On a scale from 1 to 7, please indicate the extent to which you dis/agree with them.

I feel that *the students participating in the referendum ...*

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... carefully weigh and balance different pros and cons of different policy options (1)	0	0	0	0	0	0	0
... carefully reflect on different environmental policies from different angles (2)	0	0	0	0	0	0	0
... are diverse (3)	0	0	0	0	0	0	0
... find the same things important in life as me (4)	0	0	0	0	0	0	0
... have the same values as I have (5)	0	0	0	0	0	0	0
... have considerable influence over the decision that is being made (6)	0	0	0	0	0	0	0
... can significantly steer the outcome of the decision-making process in a certain direction (7)	0	0	0	0	0	0	0
... are honest and sincere (8)	0	0	0	0	0	0	0

... take different interests into account (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... are competent (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... have the right knowledge and expertise (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... are similar to me (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... resemble BSS students at large (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... have the same policy preferences as I have (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... have the same policy preferences as BSS students (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... act in my interest (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... act in the interest of BSS students (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Tim\_DM5  
 Timing First  
 Click (1)  
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 Page Submit (3)  
 Click Count (4)

-----  
 Display This Question:

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

Rep\_CA1 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **student assembly**.

Specifically, students were invited to take part in the assembly. **50 students were randomly selected from the entire faculty, by lottery**. This lottery used quotas to select a ‘mini-public’ that mirrors the wider population: the panel’s percentages of different groups of people (of different age, gender, nationality, etc.) were similar to these groups’ percentages in the broader population. For example, if 30% of the faculty are first year students, about 30% of the assembly members are also first year students.

Supported by various experts, the **assembly members met for several consecutive weekends to suggest and discuss several options** to reduce the faculty’s carbon footprint. One of these options concerns deep *geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth’s surface.

After discussing amongst each other, the assembly puts the *geothermal heating* option up for an assembly vote. **All assembly members can vote on whether the policy will be implemented.**

-----  
 Display This Question:

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

Perc\_decimak\_CA The questions below are **about the students that participate in the assembly**. On a scale from 1 to 7, please indicate the extent to which you dis/agree with them.

I feel that *the student assembly members* ...



	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... carefully weigh and balance different pros and cons of different policy options (1)	0	0	0	0	0	0	0
... carefully reflect on different environmental policies from different angles (2)	0	0	0	0	0	0	0
... are diverse (3)	0	0	0	0	0	0	0
... find the same things important in life as me (4)	0	0	0	0	0	0	0
... have the same values as I have (5)	0	0	0	0	0	0	0
... have considerable influence over the decision that is being made (6)	0	0	0	0	0	0	0
... can significantly steer the outcome of the decision-making process in a certain direction (7)	0	0	0	0	0	0	0
... are honest and sincere (8)	0	0	0	0	0	0	0

... take different interests into account (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... are competent (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... have the right knowledge and expertise (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... are similar to me (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... resemble BSS students at large (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... have the same policy preferences as I have (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... have the same policy preferences as BSS students (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... act in my interest (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... act in the interest of BSS students (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Tim\_DM6  
Timing First  
Click (1)  
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Page Submit (3)  
Click Count (4)

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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Identification\_board Please indicate the extent to which you dis/agree with the following statement:

I identify with the **faculty board members**

- completely disagree - 1 (1)
  - 2 (2)
  - 3 (3)
  - 4 - neither disagree nor agree (4)
  - 5 (5)
  - 6 (6)
  - 7 - completely agree (7)
- 

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Identification\_exp Please indicate the extent to which you dis/agree with the following statement:

I identify with the **experts in the review panel**

- completely disagree - 1 (1)
- 2 (2)
- 3 (3)
- 4 - neither disagree nor agree (4)
- 5 (5)
- 6 (6)
- 7 - completely agree (7)

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
*Displayed*

Identification\_stud Please indicate the extent to which you dis/agree with the following statement:

I identify with the **students in the review panel**

- completely disagree - 1 (1)
- 2 (2)
- 3 (3)
- 4 - neither disagree nor agree (4)
- 5 (5)
- 6 (6)
- 7 - completely agree (7)

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
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Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Identification\_ref Please indicate the extent to which you dis/agree with the following statement:

I identify with the **students that participate in the referendum**

- completely disagree - 1 (1)
- 2 (2)
- 3 (3)
- 4 - neither disagree nor agree (4)
- 5 (5)
- 6 (6)
- 7 - completely agree (7)

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Identification\_CA Please indicate the extent to which you dis/agree with the following statement:

I identify with the **students that participate in the assembly**

- completely disagree - 1 (1)
- 2 (2)
- 3 (3)
- 4 - neither disagree nor agree (4)
- 5 (5)
- 6 (6)
- 7 - completely agree (7)

End of Block: Inbetween measures decisionmakers

---

Start of Block: Inbetween measures overall

overall\_intro Next, we are interested in your perceptions of the overall situation you just read about.

At the top of each page, we will again present you with the description of the situation. You are free to reread it in case this helps you answer the questions about it.

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Page Break

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Tim\_Sit Timing  
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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

Rep\_TD4 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by the **BSS faculty board**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a board vote. **All board members can vote on whether the policy will be implemented.**

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

Rep\_ref4 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

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After discussing amongst each other, the board puts the *geothermal heating* option up for a

faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented.**

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
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Rep\_exp4 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

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After discussing amongst each other, the board puts the *geothermal heating* option up for a faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented.**

Before the referendum takes place, **all students are provided with a voter pamphlet**; a one- page report that summarises pros and cons of implementing deep geothermal heating at the faculty.

This voter pamphlet was **produced by an expert review panel**.

Specifically, various experts were invited to take part in the panel. The **panel members met for several consecutive weekends to review** the geothermal policy proposal. After discussing amongst each other, the panel members summarised the pros and cons that they deemed most important into a one-page pamphlet.

---

*Display This Question:*

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After discussing amongst each other, the assembly puts the *geothermal heating* option up for an assembly vote. **All assembly members can vote on whether the policy will be implemented.**

---

Contr\_voice Considering the situation described earlier, on a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements.

I feel that, in a situation described above, ...



... I would feel taken seriously (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... I would treated with respect and dignity (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

att\_check Please select 'completely agree' to show you are paying attention to this question.

- completely disagree - 1 (1)
  - 2 (2)
  - 3 (3)
  - 4 - neither disagree nor agree (4)
  - 5 (5)
  - 6 (6)
  - 7 - completely agree (7)
- 

Representation In decision-making contexts, people sometimes talk of 'being represented'. In the context of the situation described above, on a scale from 1 to 7, to what extent would you dis/agree with the following statements?

I feel that, in a situation described above, ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... I would be represented (1)	0	0	0	0	0	0	0
... faculty students would be represented (2)	0	0	0	0	0	0	0

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 Page Break

Tim\_sit2 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

polperc The following questions are about your perceptions of the policy that is **up for decision**. On a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements.

I feel that **the decision on deep geothermal heating at the faculty** ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... is a complex one (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... is of a highly technical character (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... can have considerable impact on BSS students (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... doesn't involve any significant implications for BSS students (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Tim\_sit3 Timing  
 First Click (1)  
 Last Click (2)  
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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

Rep\_TD5 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by the **BSS faculty board**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a board vote. **All board members can vote on whether the policy will be implemented.**

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

Rep\_ref5 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a



faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented.**

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Rep\_exp5 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

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Before the referendum takes place, **all students are provided with a voter pamphlet**; a one- page report that summarises pros and cons of implementing deep geothermal heating at the faculty.

This voter pamphlet was **produced by an expert review panel**.

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---

*Display This Question:*

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Displayed*

Rep\_stud5 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

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---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
*Displayed*

Rep\_CA5 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

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Specifically, students were invited to take part in the assembly. **50 students were randomly selected from the entire faculty, by lottery.** This lottery used quotas to select a 'mini-public' that mirrors the wider population: the panel's percentages of different groups of people (of different age, gender, nationality, etc.) were similar to these groups' percentages in the broader population. For example, if 30% of the faculty are first year students, about 30% of the assembly

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After discussing amongst each other, the assembly puts the *geothermal heating* option up for an assembly vote. **All assembly members can vote on whether the policy will be implemented.**

---

Perc\_proc The following questions are about your opinions about **the way of decision-making described earlier**. On a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements.

I find that this way of decision-making ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... is open and transparent (1)	0	0	0	0	0	0	0
... is unbiased (2)	0	0	0	0	0	0	0
... is inclusive (3)	0	0	0	0	0	0	0
... treats people as equals (4)	0	0	0	0	0	0	0
... holds decision-makers accountable for their actions (5)	0	0	0	0	0	0	0
... is democratic (6)	0	0	0	0	0	0	0
... is fair (7)	0	0	0	0	0	0	0
... is just (8)	0	0	0	0	0	0	0
... is legitimate (9)	0	0	0	0	0	0	0
... upholds ethical and moral standards (10)	0	0	0	0	0	0	0
... can lead to decisions that are made based on the right knowledge and expertise (11)	0	0	0	0	0	0	0

... can lead to effective solutions for difficult problems (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... is able to identify a shared common ground in a diverse mix of perspectives (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... can settle conflicts of interests (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... can bring in new and original ideas for ways in which climate change might be addressed (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... is a good way to come to decisions (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... is acceptable (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Inbetween measures overall

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Start of Block: Pamphlet perceptions

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*And And Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

pam\_intro Now, we are interested in your thoughts about the voter pamphlet.

Again, we will present you with the description of the situation. Feel free to reread it, in case this helps you answering the questions.

---

Page Break

Tim\_Pam Timing  
 First Click (1)  
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 Page Submit (3)  
 Click Count (4)

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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
 Displayed*

Rep\_exp9 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented**.

Before the referendum takes place, **all students are provided with a voter pamphlet**; a one- page report that summarises pros and cons of implementing deep geothermal heating at the faculty.

This voter pamphlet was **produced by an expert review panel**.

Specifically, various experts were invited to take part in the panel. The **panel members met for several consecutive weekends to review** the geothermal policy proposal. After discussing amongst each other, the panel members summarised the pros and cons that they deemed most important into a one-page pamphlet.

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
 Displayed*



Rep\_stud9 Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty board members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the board puts the *geothermal heating* option up for a faculty-wide referendum vote: **all students at the BSS faculty can vote on whether the policy will be implemented**.

Before the referendum takes place, **all students are provided with a voter pamphlet**; a one-page report that summarises pros and cons of implementing deep geothermal heating at the faculty.

This voter pamphlet was **produced by a student review panel**.

Specifically, students were invited to take part in the panel. **50 students were randomly selected from the entire faculty, by lottery**. This lottery used quotas to select a 'mini-public' that mirrors the wider population: the panel's percentages of different groups of people (of different age, gender, nationality, etc.) were similar to these groups' percentages in the broader population. For example, if 30% of the faculty are first year students, about 30% of the assembly members are also first year students.

Supported by various experts, the **panel members met for several consecutive weekends to review** the geothermal policy proposal. After discussing amongst each other, the panel members summarised the pros and cons that they deemed most important into a one-page pamphlet.

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

Perc\_pam\_exp The following questions are about your thoughts about the voter pamphlet that **the expert review panel produced**. On a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements.

I think that the information on the voter pamphlet would be ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... accurate; the pamphlet presents information that is factually correct (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... understandable; the pamphlet discusses policy characteristics that referendum voters can make sense of (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
relevant; the points addressed by the pamphlet align with what BSS students would want to know (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... diverse; the pamphlet addresses various kinds of aspects of the proposal (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Perc\_pam\_stud The following questions are about your thoughts about the voter pamphlet that **the student review panel produced**. On a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements.

I think that the information on the voter pamphlet would be ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... accurate; the pamphlet presents information that is factually correct (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... understandable; the pamphlet discusses policy characteristics that referendum voters can make sense of (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
relevant; the points addressed by the pamphlet align with what BSS students would want to know (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... diverse; the pamphlet addresses various kinds of aspects of the proposal (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Pamphlet perceptions

---

Start of Block: Policy opinion pre

Tim\_Op Timing

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opin\_pre\_intro Now, we are interested in your own opinion about deep geothermal heating at the faculty.

---

negpos\_pre On a scale from 1 to 7, how negative or positive is your opinion about deep geothermal heating at the faculty?

- very negative - 1 (1)
  - 2 (2)
  - 3 (3)
  - 4 - neutral (4)
  - 5 (5)
  - 6 (6)
  - 7 - very positive (7)
- 

certain\_pre And, on a scale from 1 to 7, how un/certain are you of your opinion?

- very uncertain - 1 (1)
- 2 (2)
- 3 (3)
- 4 - neither uncertain nor certain (4)
- 5 (5)
- 6 (6)
- 7 - very certain (7)

## End of Block: Policy opinion pre

---

### Start of Block: WillingPart Referendum

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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

partref\_intro Finally, the following questions are about your thoughts on participating in the referendum yourself.

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...*  
 Displayed

partref\_imp On a scale from 1 to 7, how important do you find it that you yourself participate in this referendum on an environmental decision?

- very unimportant - 1 (1)
- 2 (2)
- 3 (3)
- 4 - neither unimportant nor important (4)
- 5 (5)
- 6 (6)
- 7 - very important (7)

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

partref\_likely And, on a scale from 1 to 7, how likely is it that you yourself would actually participate in this referendum on an environmental decision?

- very unlikely - 1 (1)
- 2 (2)
- 3 (3)
- 4 - neither unlikely nor likely (4)
- 5 (5)
- 6 (6)
- 7 - very likely (7)

## End of Block: WillingPart Referendum

---

### Start of Block: Outcome vignettes

Tim\_OC Timing

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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Outcome\_td Now, imagine that **a majority of the board members voted in favour** of implementing deep geothermal heating at the faculty. Deep geothermal heating will therefore be implemented at the faculty.

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Outcome\_ref Now, imagine that **a majority of the students that took part in the referendum voted in favour** of implementing deep geothermal heating at the faculty. Deep geothermal heating will therefore be implemented at the faculty.

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Outcome\_CA Now, imagine that **a majority of the student assembly members voted in favour** of implementing deep geothermal heating at the faculty. Deep geothermal heating will therefore be implemented at the faculty.

### End of Block: Outcome vignettes

---

Start of Block: Decision measures

Tim\_Dec Timing

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---

Outcome\_intro Now, we are interested in your thoughts about **the decision to implement deep geothermal heating** at the faculty. On a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements:



I feel that implementing deep geothermal heating at the faculty ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... reflects the will of the BSS students (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... serves my interests (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... serves the interests of the BSS students (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... reduces the faculty's carbon footprint considerably (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... involves significant risks for the environment (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... involves significant risks for BSS students (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... involves considerable annoyances for BSS students (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

Page Break

Tim\_Dec2  
Timing First  
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negpos\_post Considering the decision to implement deep geothermal heating at the faculty, on a scale from 1 to 7, how negative or positive would your opinion be about deep geothermal heating at the faculty?

- very negative - 1 (1)
  - 2 (2)
  - 3 (3)
  - 4 - neutral (4)
  - 5 (5)
  - 6 (6)
  - 7 - very positive (7)
-

certain\_post And, on a scale from 1 to 7, how un/certain would you be of your opinion?

- very uncertain - 1 (1)
  - 2 (2)
  - 3 (3)
  - 4 - neither uncertain nor certain (4)
  - 5 (5)
  - 6 (6)
  - 7 - very certain (7)
- 

pol\_accept Considering the scenario you have read, on a scale from 1 to 7, how un/acceptable would you find implementing deep geothermal heating at the faculty?

- very unacceptable - 1 (1)
  - 2 (2)
  - 3 (3)
  - 4 - neither unacceptable nor acceptabel (4)
  - 5 (5)
  - 6 (6)
  - 7 - very acceptable (7)
- 

Page Break \_\_\_\_\_

Tim\_Dec3  
 Timing First  
 Click (1)  
 Last Click (2)  
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 Click Count (4)

---

Proc\_post Finally, considering the decision to implement deep geothermal heating at the faculty, what would be your overall evaluation of the entire decision-making process you have read about? On a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements.

I find that this way of decision-making ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... is fair (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... is a good way to come to decisions (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... is acceptable (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Decision measures

---

Start of Block: Partic\_contrib\_td

Tim\_ctd Timing  
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 Click Count (4)

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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Part\_intro\_td Finally, considering the scenario you just read, how much would you dis/agree with the following statements?

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Part\_td On a scale from 1 to 7, to what extent do you feel **you would have had participated** in the decision-making process leading up to the implementation of deep geothermal heating at the faculty?

- not at all participated - 1 (1)
- 2 (2)
- 3 (3)
- 4 - somewhat participated (4)
- 5 (5)
- 6 (6)
- 7 - participated a lot (7)

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Guild\_post\_td And, considering the scenario, what would you be feeling in relation to climate change **afterwards**?

On a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements.

I would feel ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... guilty for not paying enough attention to the issue of climate change (1)	0	0	0	0	0	0	0
... like I should be doing more than I have done to address the problem climate change (2)	0	0	0	0	0	0	0
... I sufficiently fulfil my duty to alleviate climate change (3)	0	0	0	0	0	0	0

---

 End of Block: Partic\_contrib\_td

---

 Start of Block: Partic\_contrib\_ref

Tim\_cref Timing

First Click (1)

Last Click (2)

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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Parf\_ref\_intro For the following final questions, please imagine that you yourself had voted in the referendum. what would be your thoughts on the following?

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Part\_ref On a scale from 1 to 7, to what extent do you feel **you would have had participated in the decision-making process leading up to the implementation of deep geothermal heating** at the faculty?

- not at all participated - 1 (1)
- 2 (2)
- 3 (3)
- 4 - somewhat participated (4)
- 5 (5)
- 6 (6)
- 7 - participated a lot (7)

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Contrib\_ref And, on a scale from 1 to 7, how much would you dis/agree with the followings statements?

My voting in the referendum ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... would have helped advance remedies against global warming (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... would be a considerable contribution to the solving of climate change (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

*Or Or Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

guilt\_post\_ref And, considering that you voted in the referendum, what would you be feeling in relation to climate change afterwards?

On a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements.



I would feel ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... guilty for not paying enough attention to the issue of climate change (1)	0	0	0	0	0	0	0
... like I should be doing more than I have done to address the problem climate change (2)	0	0	0	0	0	0	0
... I sufficiently fulfil my duty to alleviate climate change (3)	0	0	0	0	0	0	0

---

 End of Block: Partic\_contrib\_ref

---

 Start of Block: Partic\_contrib\_panel

Tim\_cpan Timing

First Click (1)

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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Part\_panel\_intro For the following final questions, please imagine that you yourself were selected as a member in the student review panel, as well as had voted in the referendum. What would be your thoughts on the following?

---

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Part\_panel On a scale from 1 to 7, to what extent do you feel **you would have had participated** in the decision-making process leading up to the implementation of deep geothermal heating at the faculty?

- not at all participated - 1 (1)
  - 2 (2)
  - 3 (3)
  - 4 - somewhat participated (4)
  - 5 (5)
  - 6 (6)
  - 7 - participated a lot (7)
- 

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Contrib\_panel And, on a scale from 1 to 7, how much would you dis/agree with the followings statements?

My student review panel membership as well as voting the referendum ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... would have helped advance remedies against global warming (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... would be a considerable contribution to the solving of climate change (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

guilt\_post\_panel And, considering that you were selected as a member in the student review panel, as well as had voted in the referendum, what would you be feeling in relation to climate change afterwards?

On a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements.

I would feel ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... guilty for not paying enough attention to the issue of climate change (1)	0	0	0	0	0	0	0
... like I should be doing more than I have done to address the problem climate change (2)	0	0	0	0	0	0	0
... I sufficiently fulfil my duty to alleviate climate change (3)	0	0	0	0	0	0	0

---

 End of Block: Partic\_contrib\_panel

---

 Start of Block: Partic\_contrib\_CA

Tim\_cCA Timing

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Last Click (2)

Page Submit (3)

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*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Part\_CA\_intro For the following final questions, please imagine that you yourself were selected as a member in the student assembly. What would be your thoughts on the following?

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Part\_CA On a scale from 1 to 7, to what extent do you feel **you would have had participated** in the decision-making process leading up to the implementation of deep geothermal heating at the faculty?

- not at all participated - 1 (1)
- 2 (2)
- 3 (3)
- 4 - somewhat participated (4)
- 5 (5)
- 6 (6)
- 7 - participated a lot (7)

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

Contrib\_CA And, on a scale from 1 to 7, how much would you dis/agree with the followings statements?

My student assembly membership ...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... would have helped advance remedies against global warming (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... would be a considerable contribution to the solving of climate change (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Display This Question:*

*If Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to r...  
Displayed*

guilt\_post\_CA And, considering that you were selected as a member in the assembly, what would you be feeling in relation to climate change afterwards?

On a scale from 1 to 7, please indicate the extent to which you dis/agree with the following statements.

I would feel ...	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
... guilty for not paying enough attention to the issue of climate change (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... like I should be doing more than I have done to address the problem climate change (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... I sufficiently fulfil my duty to alleviate climate change (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Partic\_contrib\_CA

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## Appendix B

*Vignettes Corresponding to One Condition Each.*

### ***Top-Down Condition***

Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by the **BSS faculty council**, consisting of about 20 periodically elected students and staff.

Specifically, the **BSS faculty council members suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the council puts the *geothermal heating* option up for a council vote. **All council members can vote on whether the policy is implemented.**

### ***Referendum + Expert Review Condition***

Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty council members - consisting of about 20 periodically elected students and staff - suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the council puts the *geothermal heating* option up for a faculty-wide referendum vote; open to all students and staff. **Everyone at the faculty can vote on whether the policy is implemented.**

This voter pamphlet was **produced by an expert review panel**.

Specifically, various experts were invited to take part in the panel. The **panel members met for several consecutive weekends to review** the geothermal policy proposal. After discussing amongst each other, the panel members summarised the pros and cons that they deemed most important into a one-page pamphlet.

### ***Referendum + Student Review Condition***

Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty council members - consisting of about 20 periodically elected students and staff - suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the council puts the *geothermal heating* option up for a faculty-wide referendum vote; open to all students and staff. **Everyone at the faculty can vote on whether the policy is implemented.**

This voter pamphlet was **produced by a faculty review panel**.

Specifically, students and staff members were invited to take part in the panel. **50 students and staff members were randomly selected from the entire faculty, by lottery.** This lottery used quotas to select a 'mini-public' that mirrors the wider population: the panel's percentages of different groups of people (of different age, gender, nationality, etc.) were similar to these groups' percentages in the broader population. For example, if 50% of the faculty are women, about 50% of the assembly members are also women.

Supported by various experts, the **panel members met for several consecutive weekends to review** the geothermal policy proposal. After discussing amongst each other, the panel members summarised the pros and cons that they deemed most important into a one-page pamphlet.



### ***Standard Referendum Condition***

Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty-wide referendum**.

Specifically, the **BSS faculty council members - consisting of about 20 periodically elected students and staff - suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

After discussing amongst each other, the council puts the *geothermal heating* option up for a faculty-wide referendum vote; open to all students and staff. **Everyone at the faculty can vote on whether the policy is implemented.**

Before the referendum takes place, **all students and staff are provided with a voter pamphlet**; a one-page report that summarises pros and cons of implementing deep geothermal heating at the faculty.

### ***Assembly Condition***

Imagine that, in order to combat climate change, the BSS faculty needs to implement a policy to reduce its carbon footprint.

This is being decided by means of a **faculty assembly**.

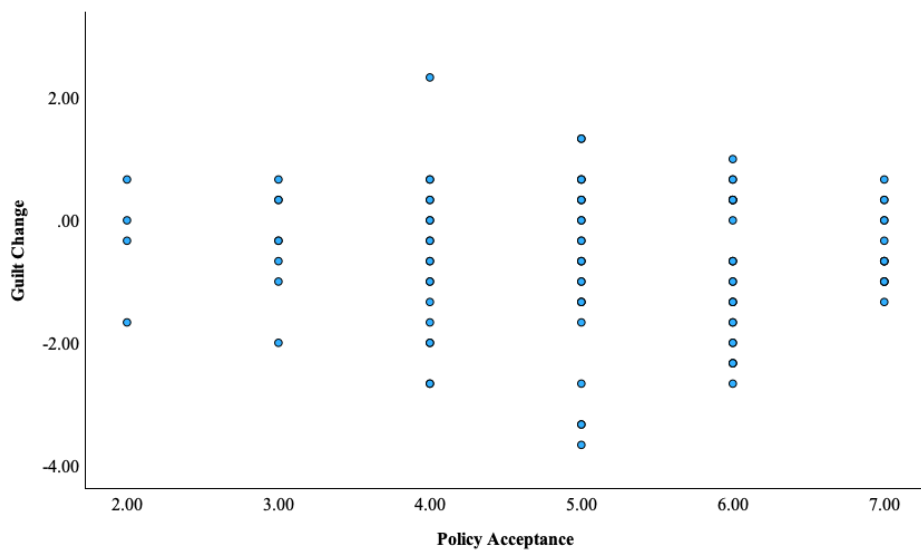
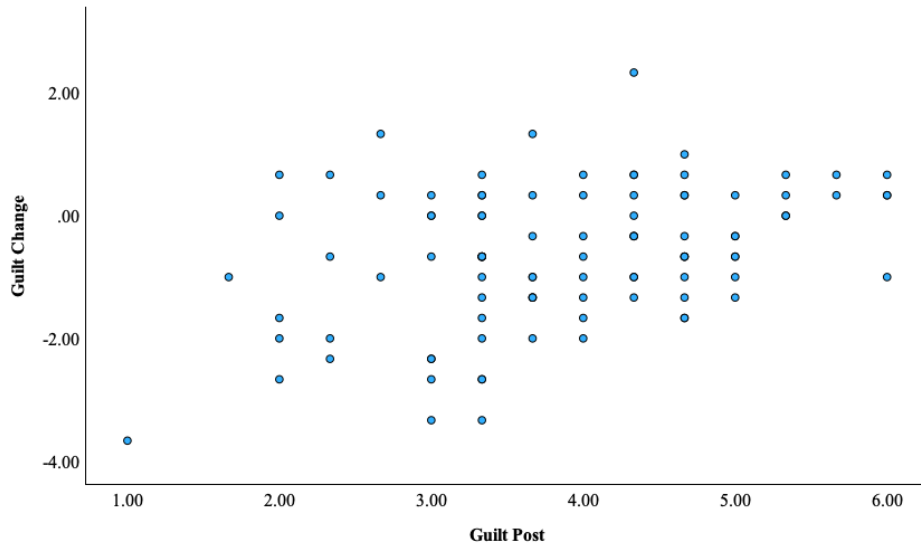
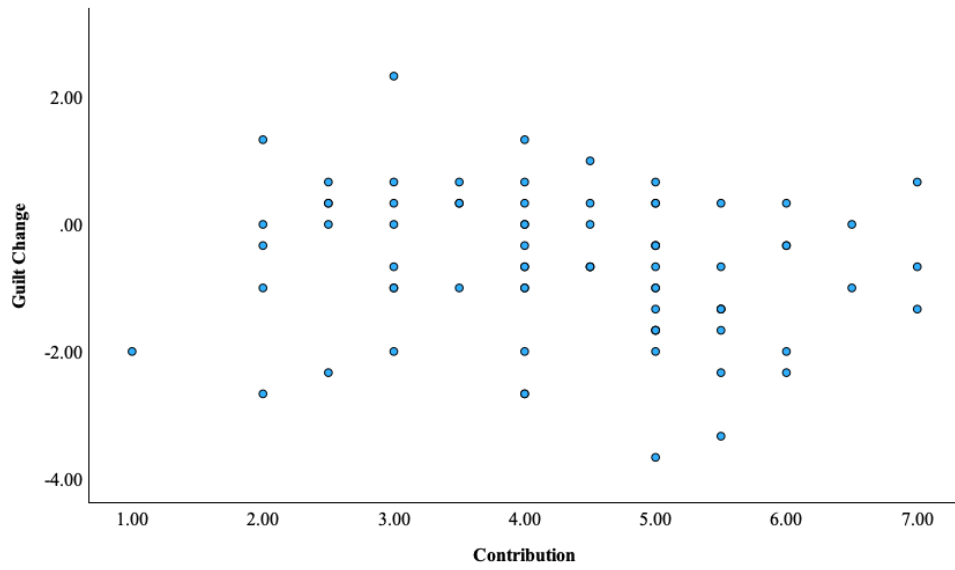
Specifically, students and staff members were invited to take part in the assembly. **50 students and staff members were randomly selected from the entire faculty, by lottery**. This lottery used quotas to select a 'mini-public' that mirrors the wider population: the panel's percentages of different groups of people (of different age, gender, nationality, etc.) were similar to these groups' percentages in the broader population. For example, if 50% of the faculty are women, about 50% of the assembly members are also women.

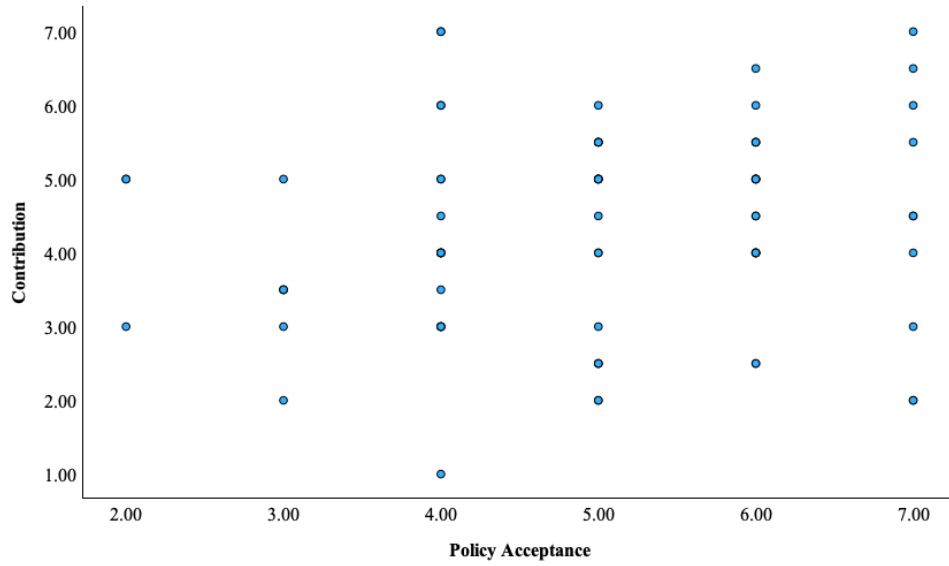
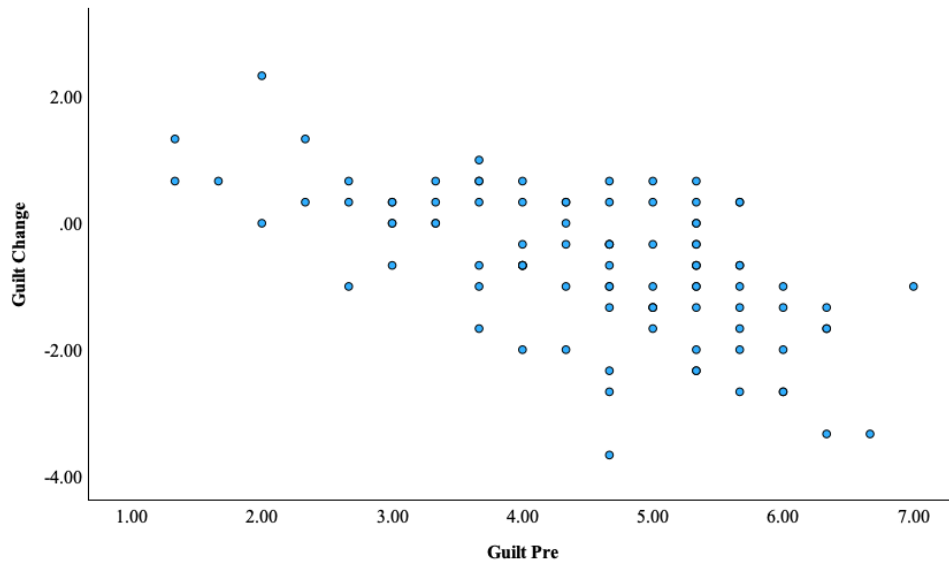
Supported by various experts, the **assembly members met for several consecutive weekends to suggest and discuss several options** to reduce the faculty's carbon footprint. One of these options concerns *deep geothermal heating*; a technology that heats buildings with warmth that is naturally present at 500 meters or more below the earth's surface.

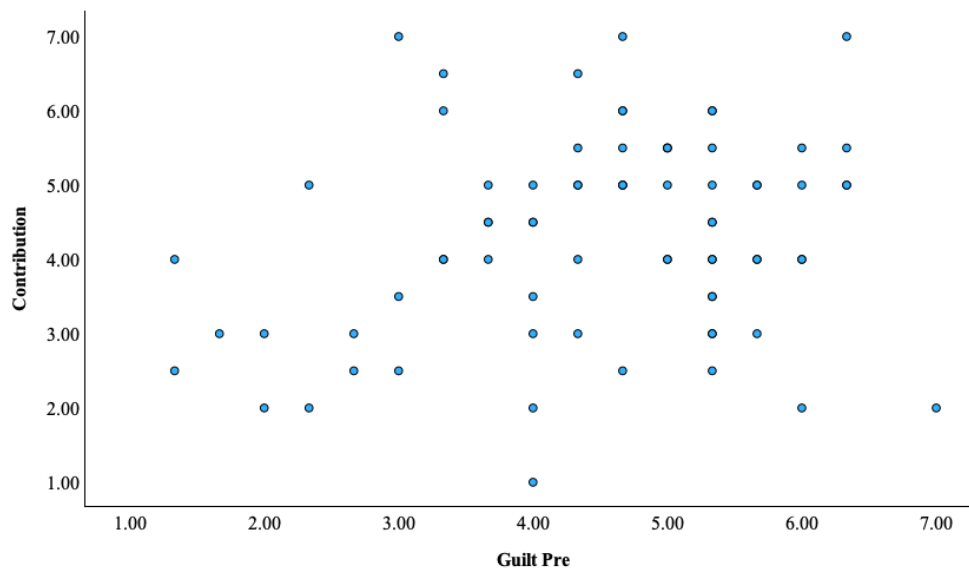
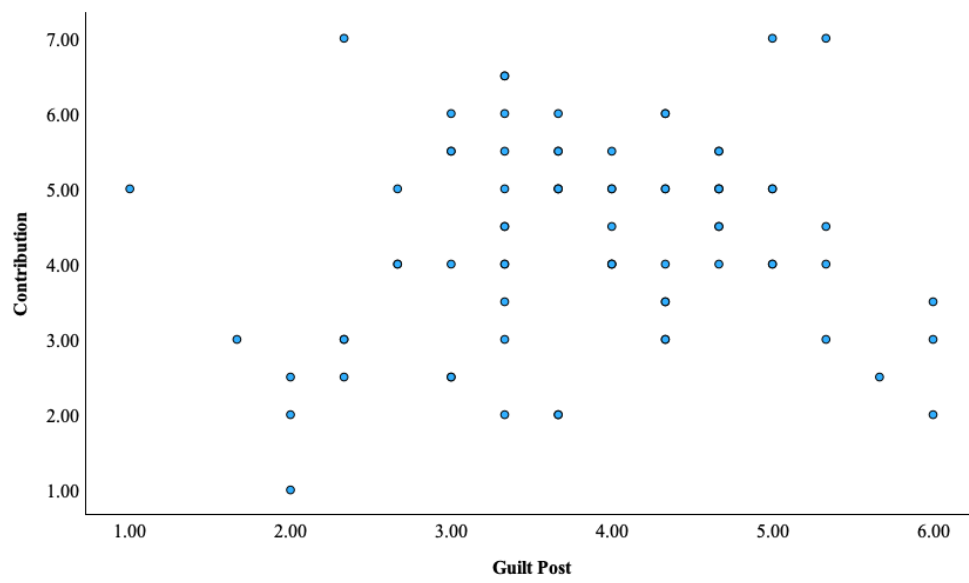
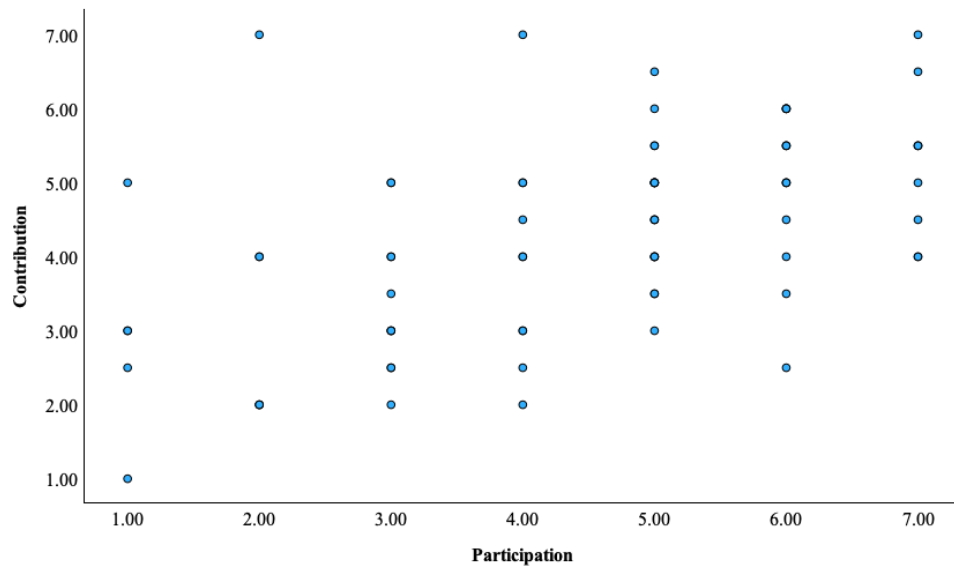
After discussing amongst each other, the assembly puts the *geothermal heating* option up for an assembly vote. **All assembly members can vote on whether the policy is implemented.**

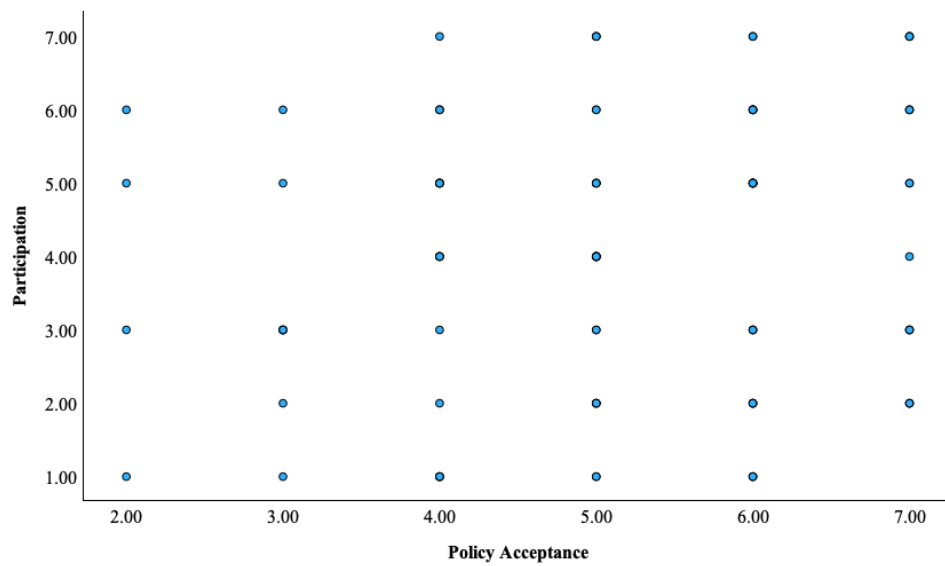
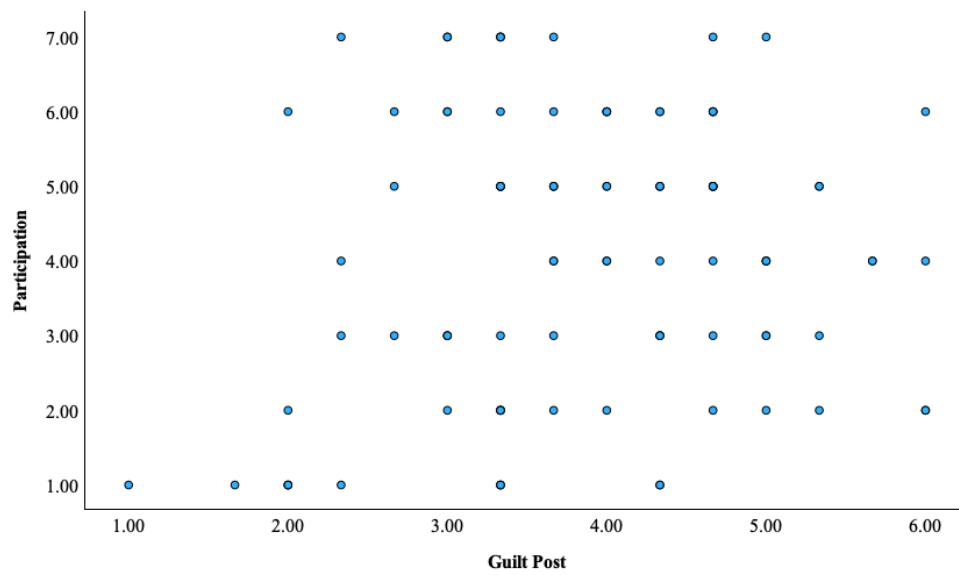
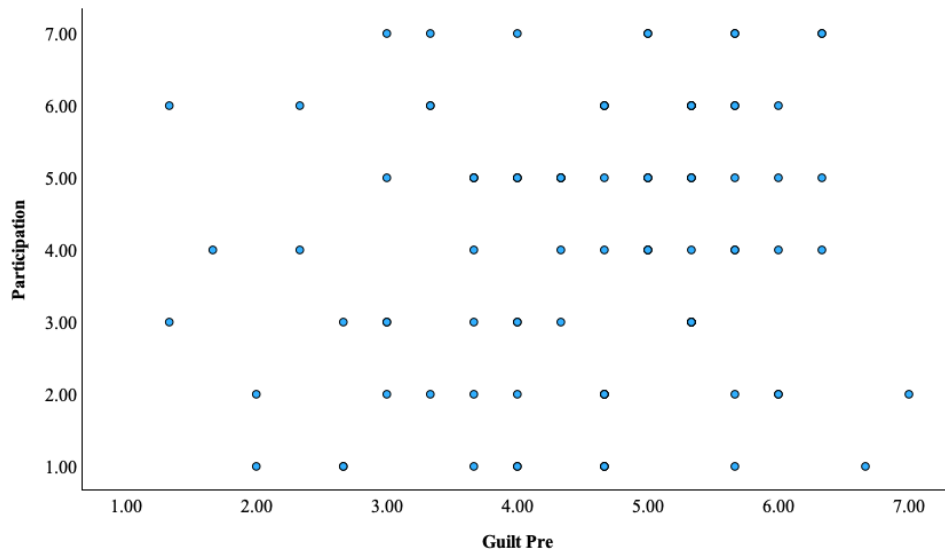
## **Appendix C**

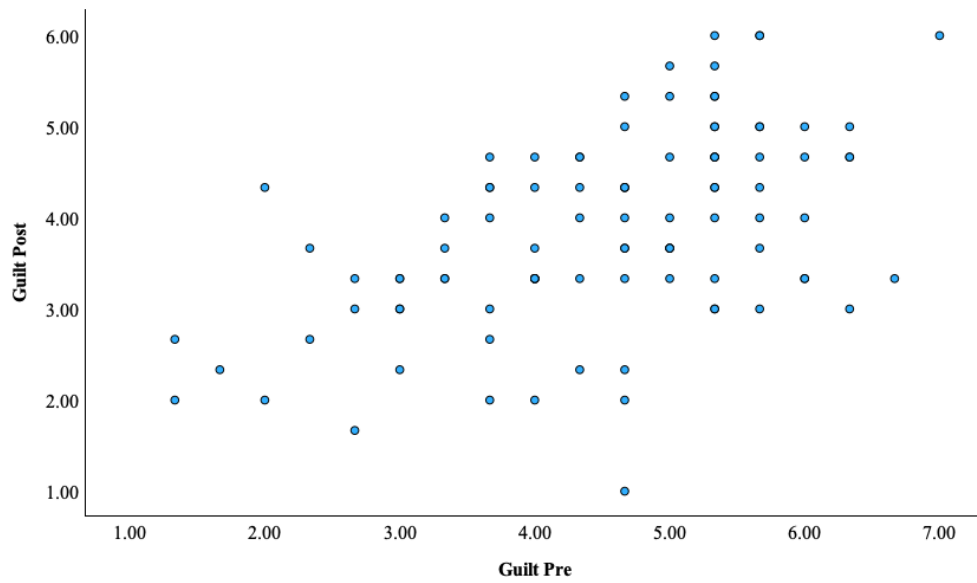
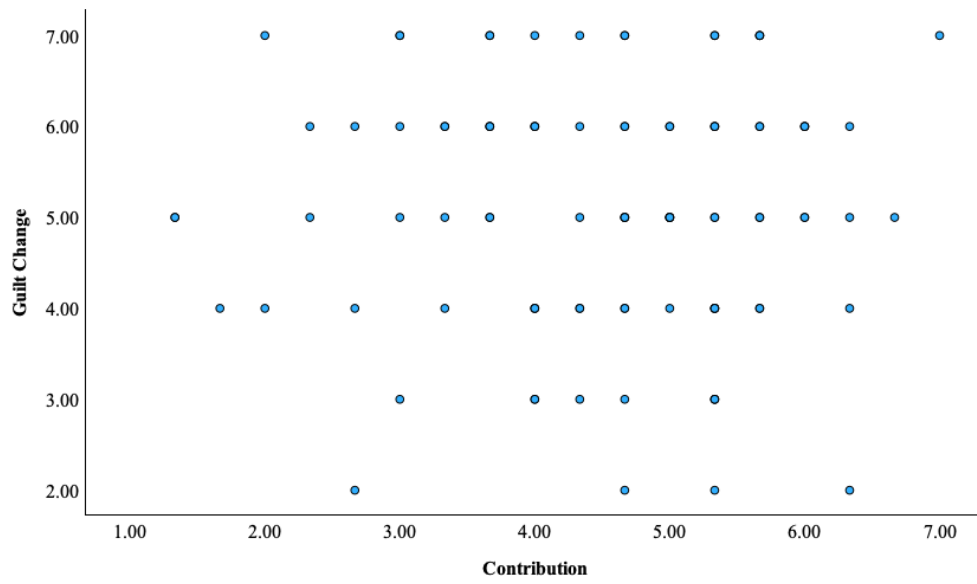
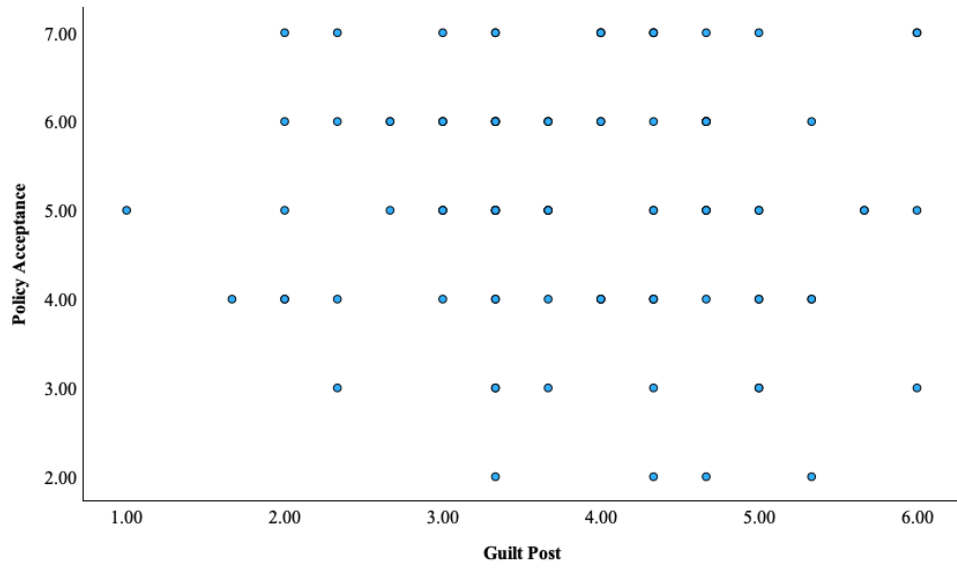
*Assumption of Linearity Check for Bivariate Correlations.*

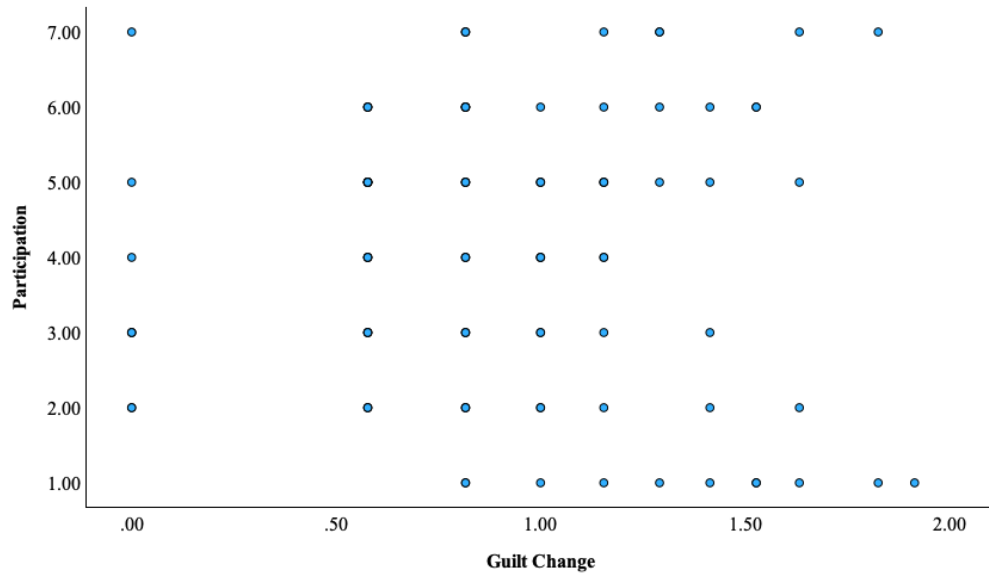






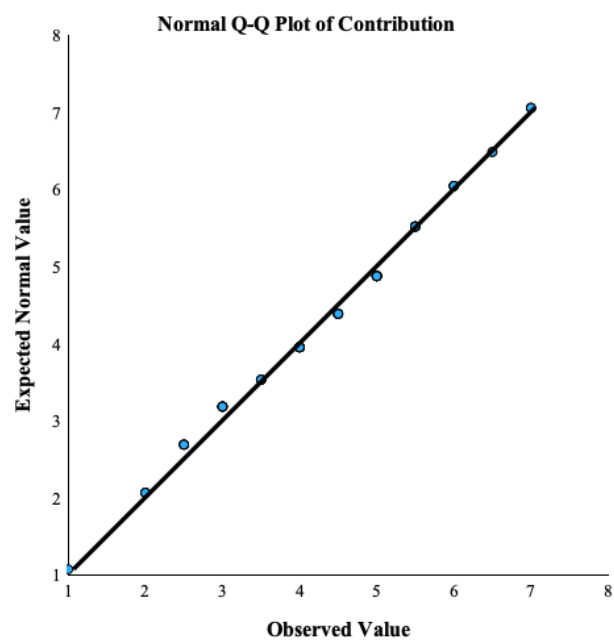


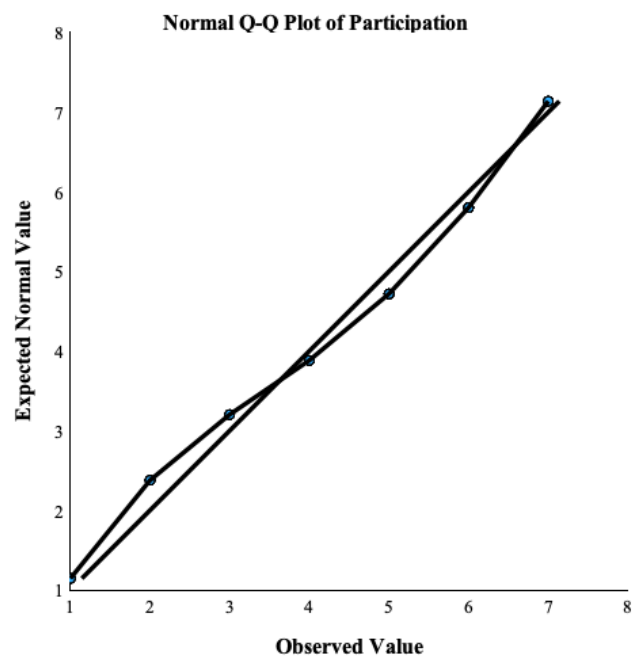
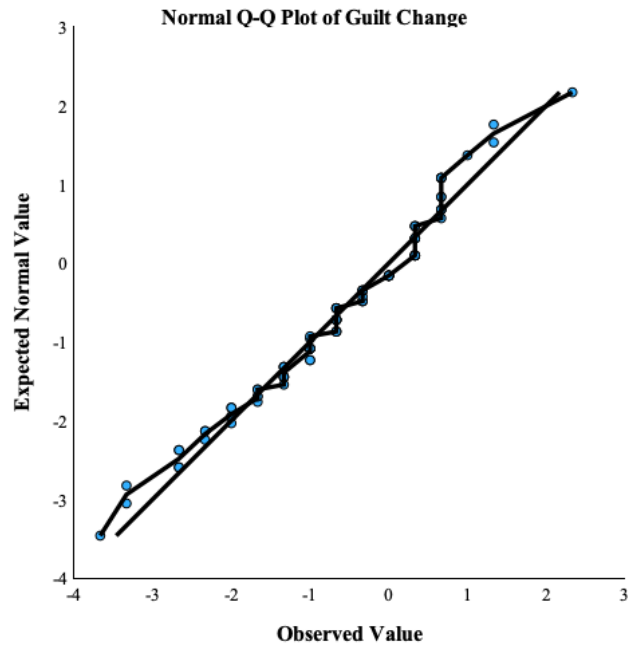




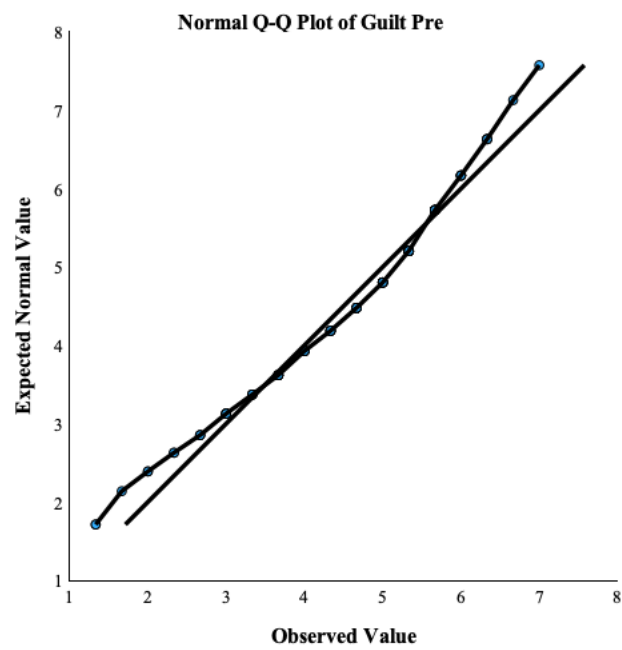
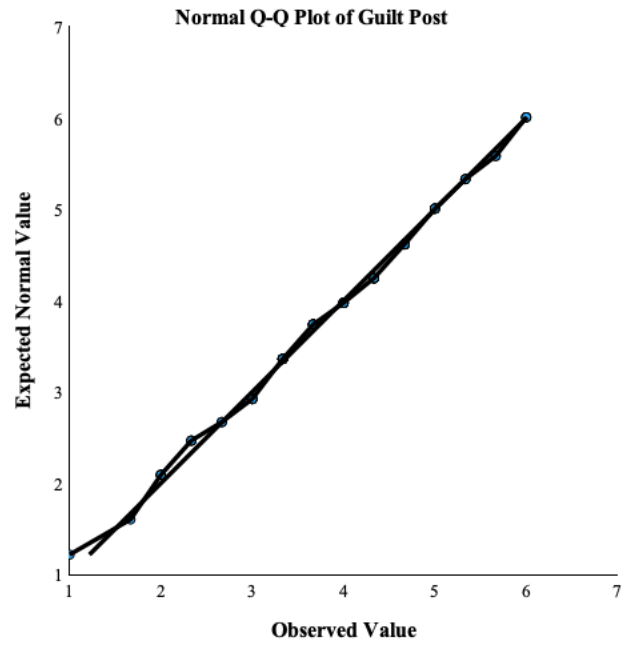
## Appendix D

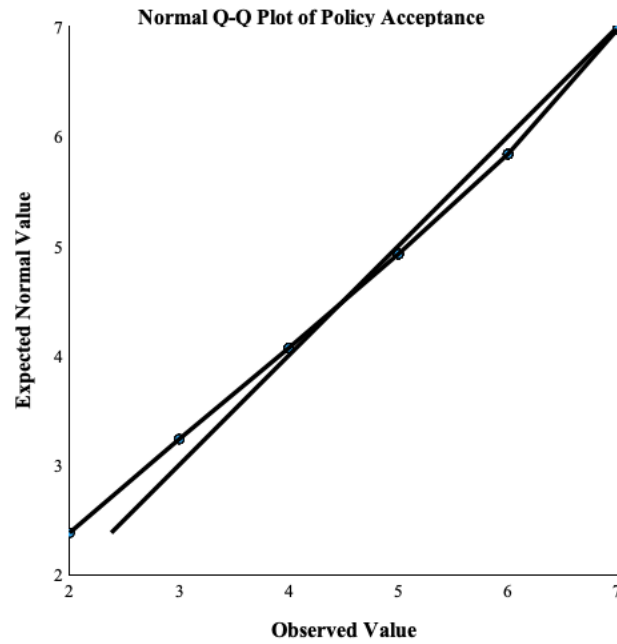
*Q-Q Plots to Check for Normality.*











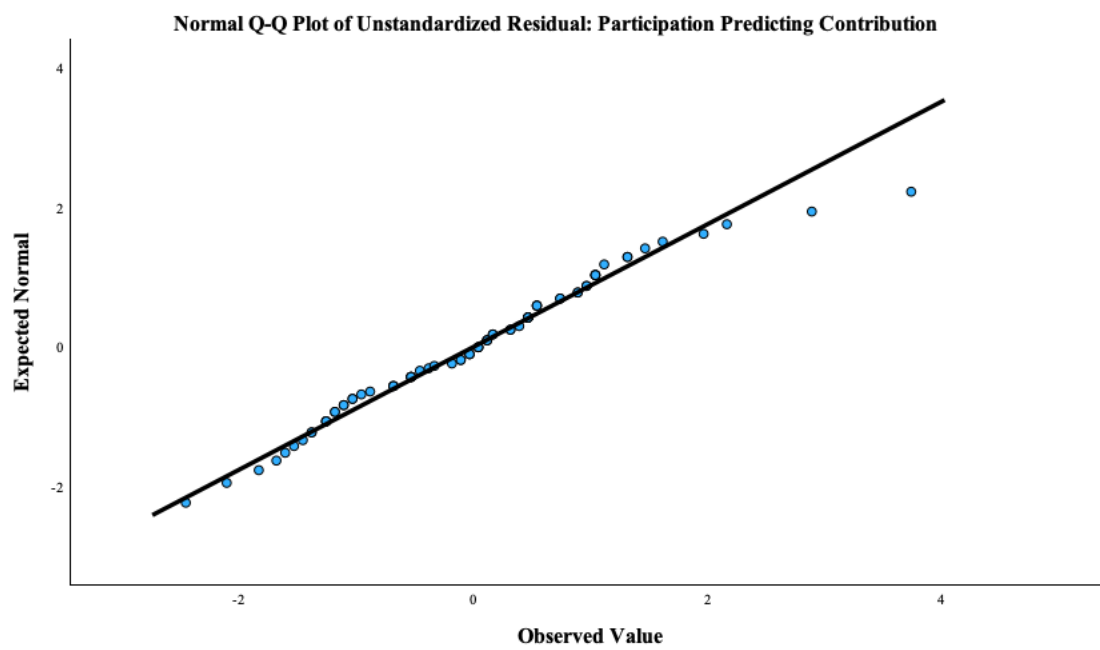
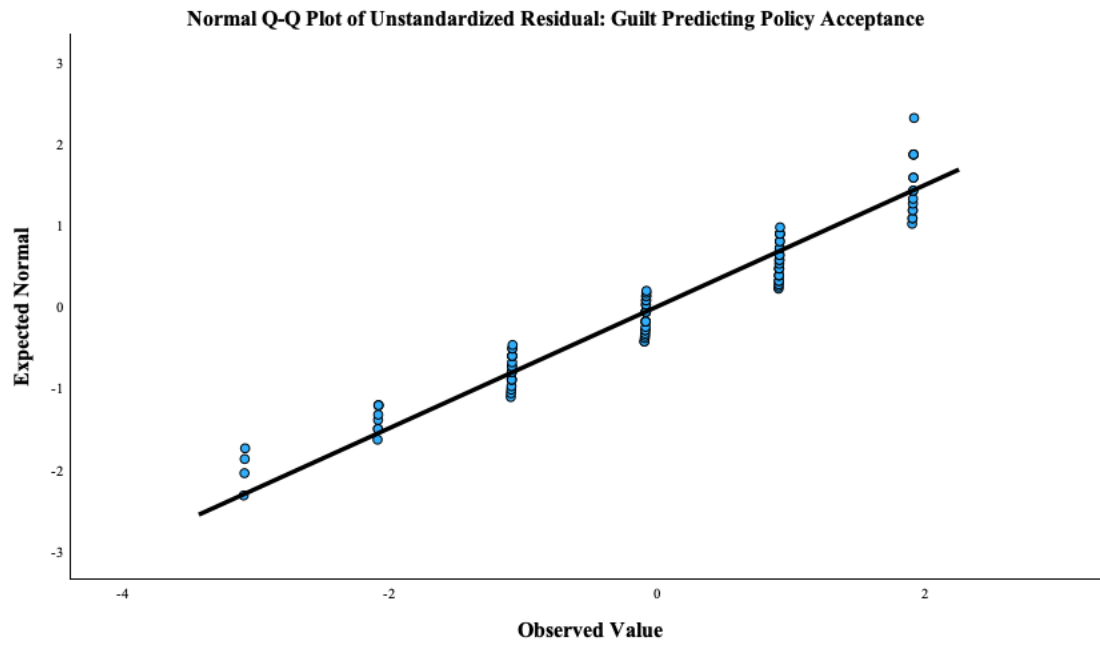
## Appendix E

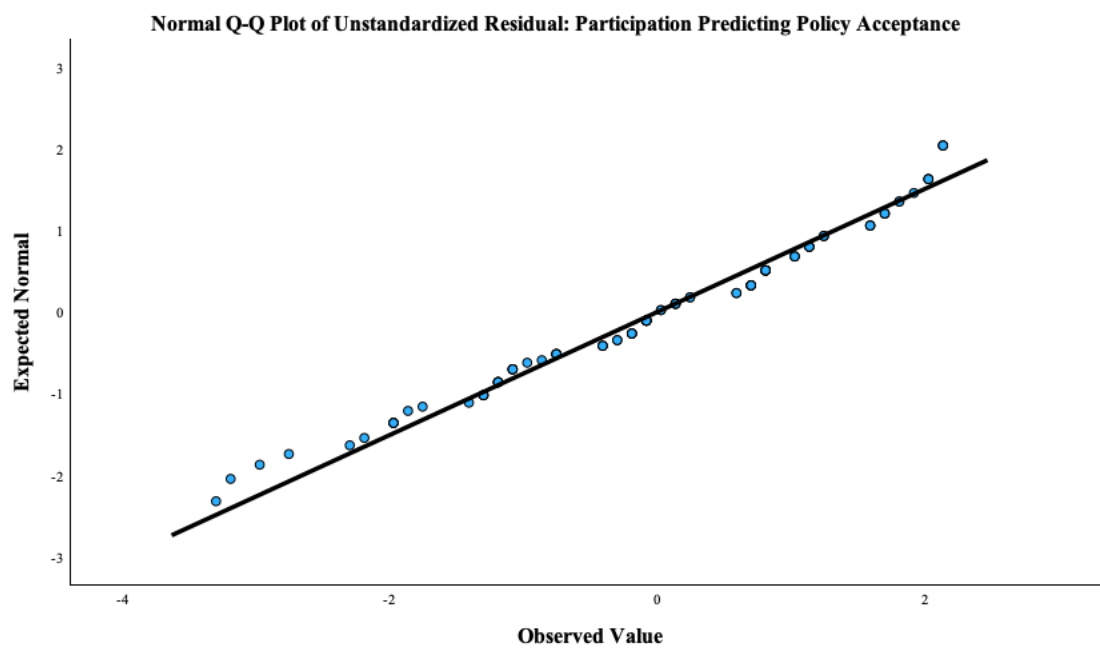
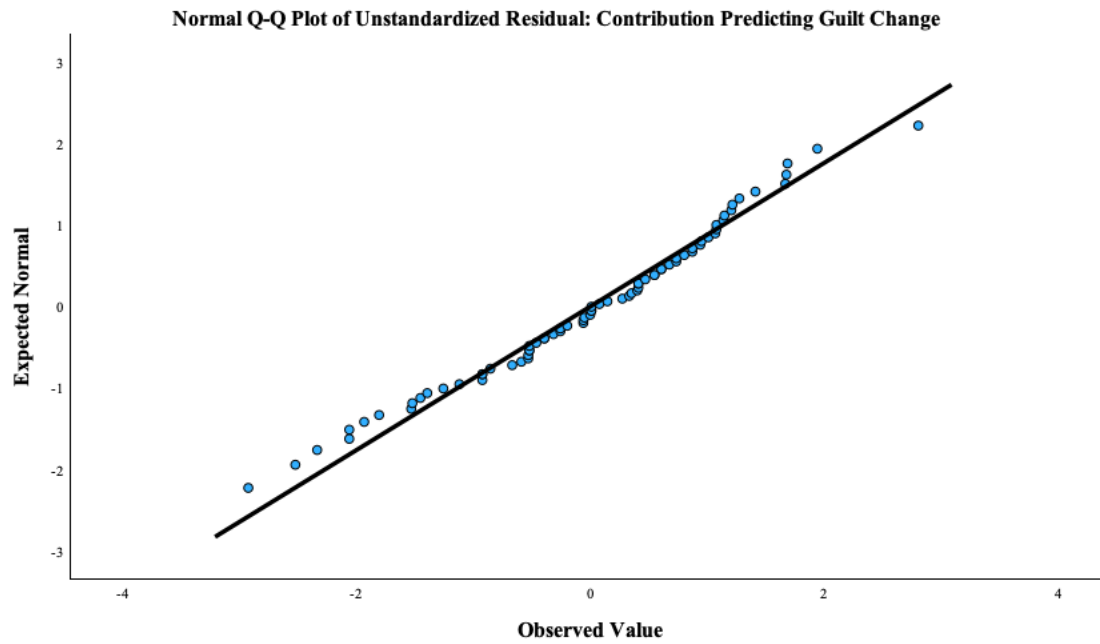
*Durbin-Watson Test of Independence.*

Linear Regression Model				Durbin-Watson
Climate Guilt Acceptance	predicting	Policy		1.65
Participation	predicting	Contribution		2.22
Contribution	predicting	Guilt Change		2.14
Participation Acceptance	predicting	Policy		1.67

## Appendix F

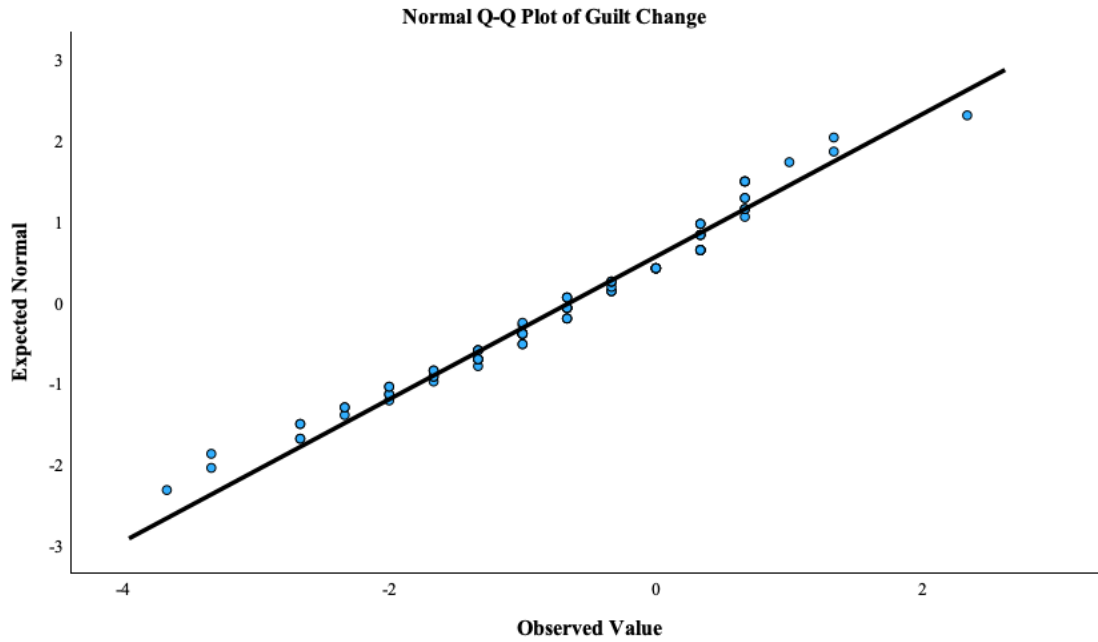
*Q-Q Plots of Residuals Testing Normality of Errors (per Linear Regression Model).*





## Appendix G

*Q-Q Plot and Shapiro-Wilk Test of Normality of the Difference.*



	Shapiro-Wilk		
	Statistic	df	Sig.
Guilt Change	.97	96.00	.06

## Appendix H

### *Shapiro-Wilk Test of Normality.*

	condition	Shapiro-Wilk		
		Statistic	df	Sig.
Contribution	Top-down	.86	4	.27
	Referendum + expert review	.93	16	.22
	Referendum + faculty review	.91	18	.10
	Standard referendum Assembly	.92	16	.17
Guilt Change	Top-down	.97	21	.68
	Top-down	.83	4	.16
	Referendum + expert review	.93	16	.25
	Referendum + faculty review	.97	18	.88
	Standard referendum	.95	16	.51

	Assembly	.89	21	.07
Participation	Top-down	.98	4	.91
	Referendum + expert review	.87	16	.09
	Referendum + faculty review	.83	18	.08
	Standard referendum	.90	16	.07
	Assembly	.91	21	.07
Policy Acceptance	Top-down	.86	4	.27
	Referendum + expert review	.91	16	.12
	Referendum + faculty review	.88	18	.09
	Standard referendum	.95	16	.55
	Assembly	.95	21	.33

## Appendix I

### *Levene-Test of Homogeneity of Variances.*

		Levene	df1	df2	Sig.
		Statistic			
Contribution	Based on Mean	1.03	4	70	.40
	Based on Median	.89	4	70	.47
	Based on Median and with adjusted df	.89	4.00	66.91	.47
	Based on trimmed mean	1.03	4.00	70.00	.40
Guilt Change	Based on Mean	1.77	4.00	91.00	.14
	Based on Median	1.66	4.00	91.00	.17
	Based on Median and with adjusted df	1.66	4.00	71.66	.17
	Based on trimmed mean	1.78	4.00	91.00	.14
Participation	Based on Mean	.91	4.00	91.00	.46
	Based on Median	.50	4.00	91.00	.74
	Based on Median and with adjusted df	.50	4.00	85.67	.74
	Based on trimmed mean	.74	4.00	91.00	.57
Policy	Based on Mean	.13	4.00	91.00	.97
Acceptance	Based on Median	.12	4.00	91.00	.98
	Based on Median and with adjusted df	.12	4.00	86.04	.98

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Based on trimmed mean	.14	4.00	91.00	.97
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