

A woman with her hair in a bun, wearing a white lab coat with yellow and blue patterns, is seen from the side, adjusting a control panel on a white boiler. The background is a plain wall. The image is overlaid with a teal and blue geometric graphic on the right side.

Testing understanding & barriers to reducing boiler flow temperature

BIT & Nesta collaboration
18.02.22

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THE
BEHAVIOURAL
INSIGHTS
TEAM

 P R E D I C T I V

Methodology

We recruited a sample of 1,996 UK adults

BIT worked with Nesta to test different messages aimed at increasing the number of people who would optimise their boiler temperature using an online representative sample of 1,996 UK adults between 8th February and 10th February 2022.

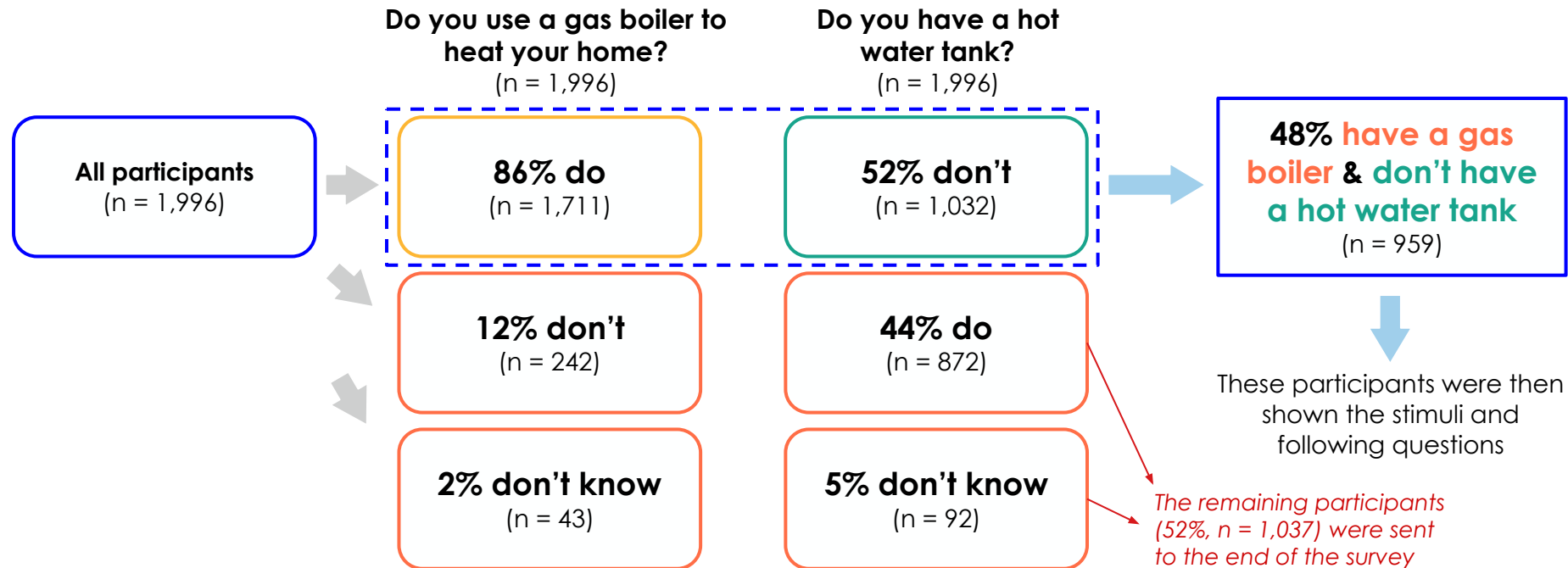
NOTE ON INTERPRETING RESULTS

1. The sample doesn't capture the digitally excluded, or people not inclined to complete online surveys.
2. Just because people say they would do something in an online experiment, this doesn't mean they always will in real life. We therefore interpret stated intent as a likely upper bound of real behaviour.
3. When we examine differences by subgroups (e.g. gender, ethnicity), we only do so when the sample size remains large enough to draw robust inferences from.

| Gender | | Region | | Ethnicity | |
|--------|-----|---------------|-----|---------------|-----|
| Women | 53% | South & East | 31% | White | 86% |
| Age | | North | 25% | Asian | 6% |
| 18-24 | 12% | Midlands | 17% | Black | 3% |
| 25-54 | 59% | Scot/NI/Wales | 15% | Mixed / other | 4% |
| 55+ | 29% | London | 12% | | |

Findings

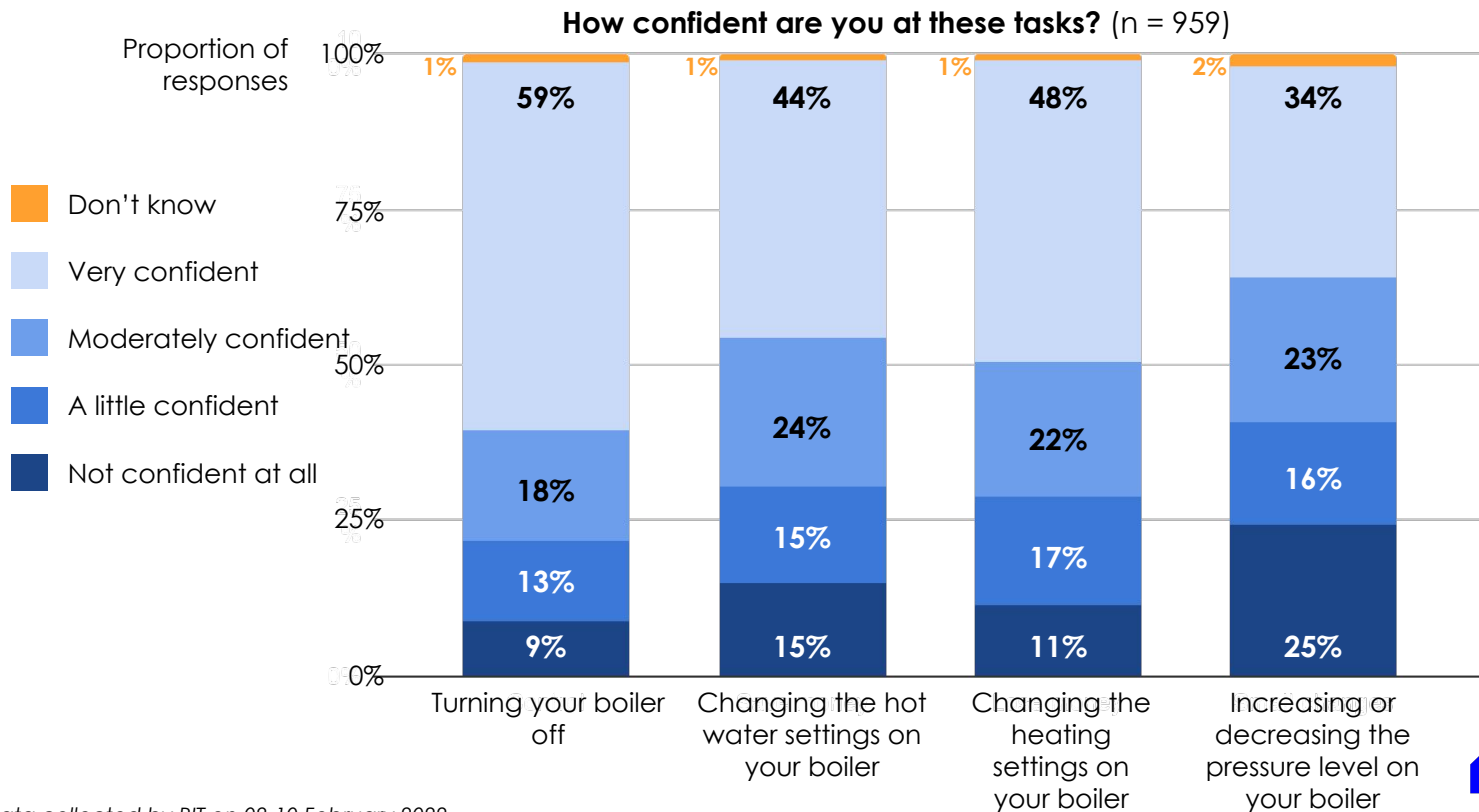
48% of our sample have a gas boiler but don't have a hot water tank



Participants were shown these questions before seeing the stimuli

Findings

At least 1/3 of participants were very confident in the tasks; but around 1/4 were either not confident or 'a little confident' in the tasks




99% of respondents said they could access their boiler.

Findings


Men report higher confidence in changing boiler settings. Higher income makes a difference when it comes to changing the pressure.

- Various **clustering strategies did not reveal** any demographic clusters related to confidence in changing boiler settings.
- However we did find that **gender and income** independently were related to confidence in changing boiler settings.




Turning your boiler off

| Gender | | Annual Income | |
|---------------|-----|--------------------|-----|
| Women (n=545) | 67% | <£30,000 (n=557) | 39% |
| Men (n=413) | 90% | >= £30,000 (n=402) | 35% |




Changing the hot water settings on your boiler

| Gender | | Annual Income | |
|---------------|-----|--------------------|-----|
| Women (n=545) | 57% | <£30,000 (n=557) | 65% |
| Men (n=413) | 83% | >= £30,000 (n=402) | 73% |



Changing the heating settings on your boiler

| Gender | | Annual Income | |
|---------------|-----|--------------------|-----|
| Women (n=545) | 59% | <£30,000 (n=557) | 67% |
| Men (n=413) | 84% | >= £30,000 (n=402) | 74% |



Increasing or decreasing the pressure level on your boiler

| Gender | | Annual Income | |
|---------------|-----|--------------------|-----|
| Women (n=545) | 47% | <£30,000 (n=557) | 52% |
| Men (n=413) | 69% | >= £30,000 (n=402) | 64% |

Methodology

Participants first shown a screen stating that the experiment was about changing temperature settings on boilers

In the next section, you'll be asked about changing the temperature settings on your boiler.

The questions are not about changing the room temperature on your thermostat.



Methodology

Participants were randomly assigned to see one of 3 versions of the stimuli, or shown nothing in the control group

A

(Save money)

You could save hundreds of pounds each year by changing your boiler settings

Turning your boiler flow temperature down could reduce the amount of energy you need to heat your home



n = 253

B

(Lose money)

You could be losing hundreds of pounds each year by not changing your boiler settings

Turning your boiler flow temperature down could reduce the amount of energy you need to heat your home



n = 234

C

(Small changes)

Small changes can make a big difference to your energy consumption

Turning your boiler flow temperature down could reduce the amount of energy you need to heat your home



n = 221

D

(Control)

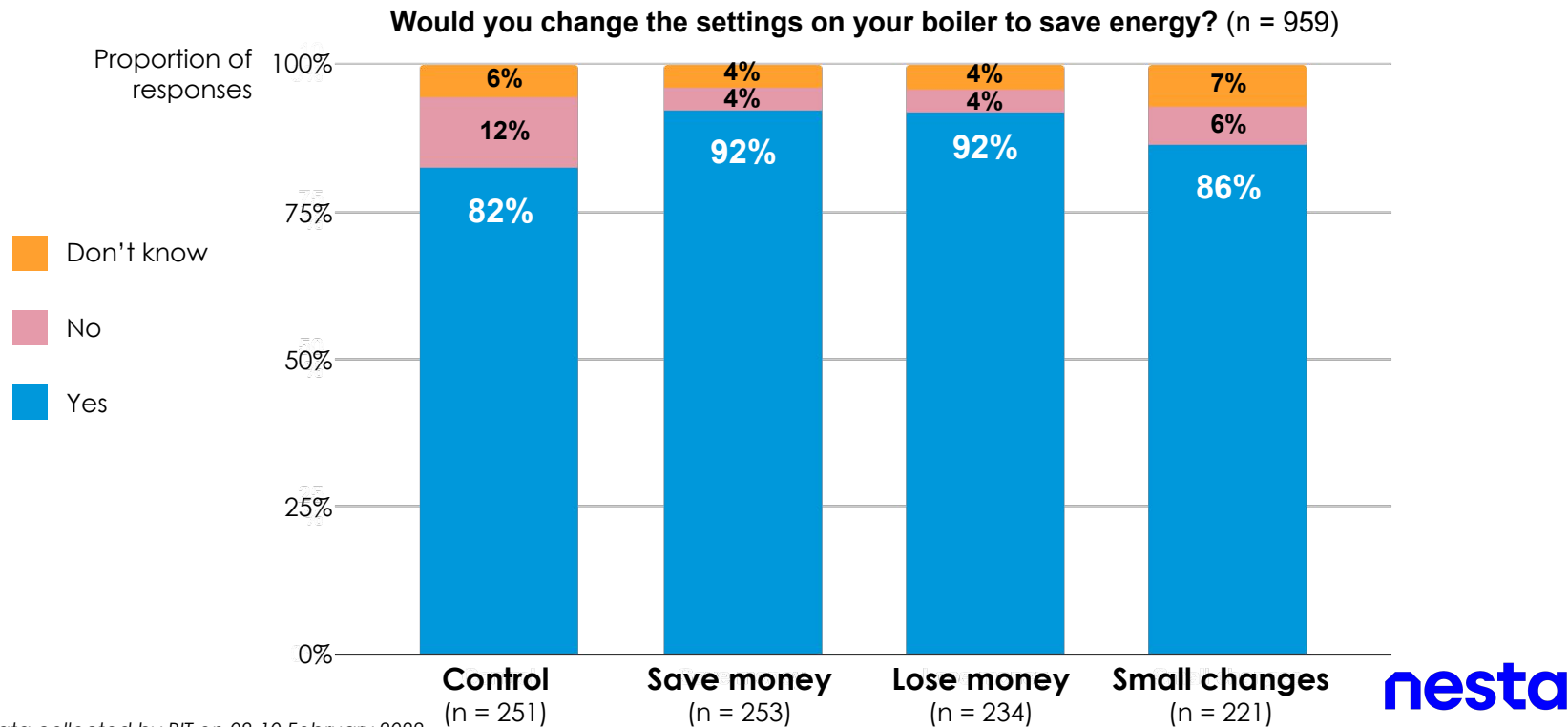
NO STIMULUS

n = 251

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Findings

All stimuli resulted in more people saying they would change their boiler settings, with **Save money** and **Lose money** performing the best



Findings

The biggest barriers to changing settings were making a mistake (for those that would) or boilers already being correctly set (for those that wouldn't)

Of respondents who would change their boiler settings...

(88% of participants, n = 846)



Top 3 barriers to changing boiler settings (n = 909)

| | | |
|------------|--|------------|
| 61% | Worried I would make a mistake | 40% |
| 58% | Worried my home would be cold | 51% |
| 51% | Boiler already set correctly | 62% |
| 36% | Worried about cost | 33% |
| 30% | I would need to speak to those I live with first | 17% |
| 25% | Don't know how to | 25% |
| 25% | Don't have the boiler manual | 24% |
| 8% | Not interested/too busy | 32% |
| 7% | Don't trust this advice | 16% |

Of respondents who wouldn't change their boiler settings...

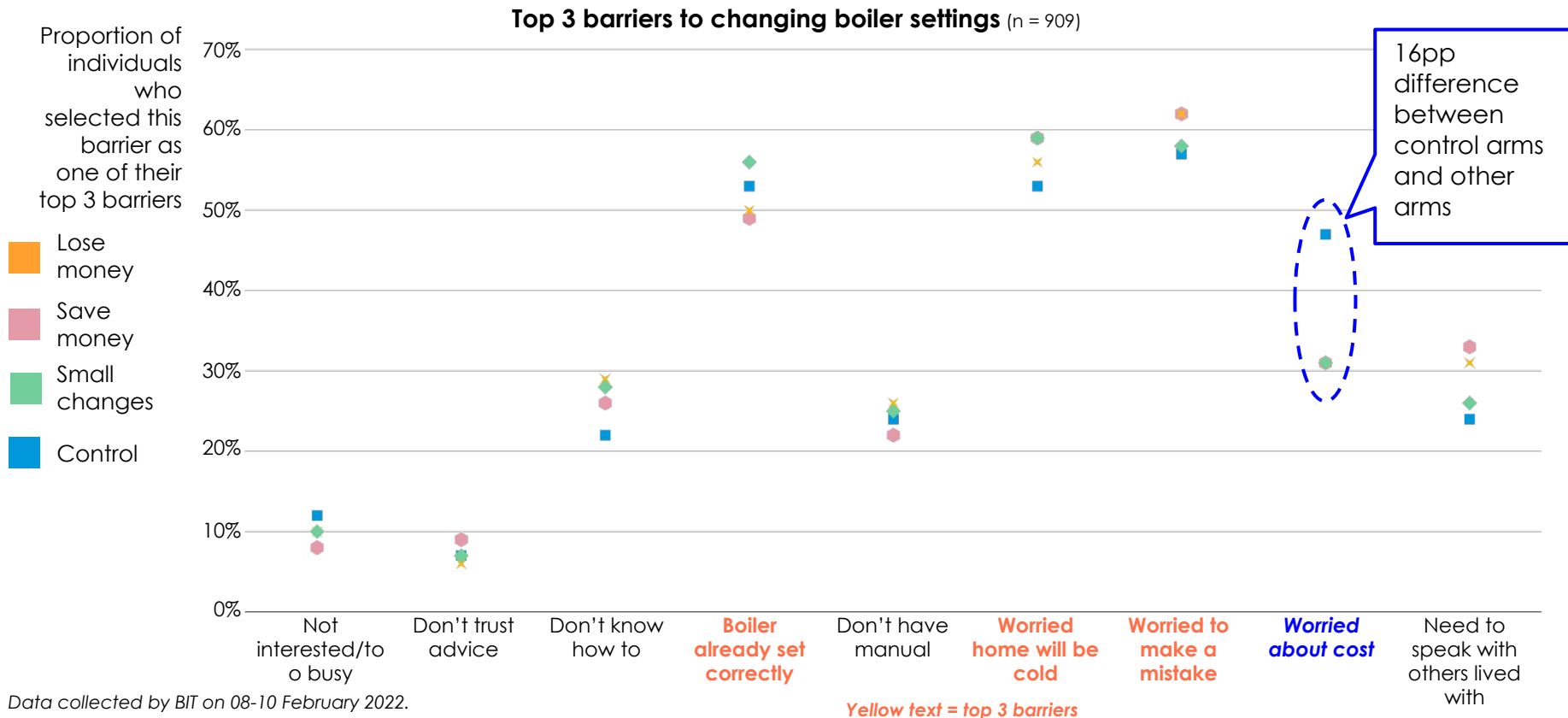
(5% of participants, n = 63)



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Findings

Individuals in the control group stated more often that **worry about cost** was a barrier, with limited differences for other barriers



Findings

63 participants provided reasons why they wouldn't change the settings on their boiler, as outlined below



The most common reason was not knowing/being concerned about doing something wrong

"I have no idea how to."

"I would not personally change the settings on our boiler. I would not want to fiddle with it in case I got it wrong. If we thought we would want to do this, even though."

"I'd be concerned I'd do something wrong."

"It seems too complicated."



Some were happy with the current settings

"Because I am happy that they are set at their most energy saving now."

"Because it wouldn't heat the house as quick."



Some were confused about what changing the boiler temperature does

"I prefer to moderate usage at the thermostat (room) end. The boiler also heats my water and I want the temperature stable."

"I want hot water."

"There's one dial to change the rooms heating and another to change the temperature of the water from the taps."

There were also other unique responses

"I have disabilities than require me keep at a certain temperature as too hot or too cold causes issues with my health."

"Need to keep heating on for medical reasons."

"The setting have been made by my plumber to be the most efficient so don't need to."



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