

Combining dictation and/or voice recordings with text to answer narrative open-ended survey questions

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Acknowledgments:

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Using voice inputs in web surveys

2 ways of answering open-ended questions orally

Dictation

Voice recording

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Voice recording

The screenshot shows a mobile survey interface with an orange header bar containing the title 'Encuesta' and a question mark icon. The main content area contains the following text:

Explica por qué **confías** personalmente **algo** en las residencias. Por favor, danos tantos detalles como puedas. En tu respuesta, menciona si piensas que hay una diferencia entre residencias **públicas** y **privadas**.

Para responder, por favor, pulsa el botón 'Dictar' y habla: tu respuesta se irá transcribiendo en un texto que aparecerá en la pantalla cuando pares de hablar. Te aparecerá probablemente un mensaje pidiendo que autorices el uso del micrófono. Es necesario aceptar para que funcione la herramienta de dictado.

Cuando acabes, pulsa 'Stop'. Puedes repetir el proceso tantas veces como quieras. Si tu dispositivo no tiene micrófono, pasa a la página siguiente.

At the bottom of the screen, there are two buttons: 'Dictar' (orange) and 'Stop' (grey).

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Dictation

Encuesta

Explica por qué **confías** personalmente **algo** en las residencias. Por favor, danos tantos detalles como puedas. En tu respuesta, menciona si piensas que hay una diferencia entre residencias **públicas** y **privadas**.

Para responder, por favor, habla: tu respuesta se grabará como texto que aparecerá en la pantalla. Te aparecerá un mensaje pidiendo que actives el micrófono. Es necesario tener la herramienta de dictado instalada en el dispositivo.

Cuando acabes, pulsa 'Stop'. Puedes repetir el proceso tantas veces como quieras si tu dispositivo no tiene micrófono, pasa a la página siguiente.

Es la experiencia que tengo

Dictando... Stop

Dictar Stop

Voice recording

Encuesta

Explica por qué **confías** personalmente **algo** en las residencias. Por favor, danos tantos detalles como puedas. En tu respuesta, menciona si piensas que hay una diferencia entre residencias **públicas** y **privadas**.

Para responder, por favor, pulsa el botón 'Grabar' y habla: tu respuesta se grabará como audio. Te aparecerá probablemente un mensaje pidiendo que autorices el uso del micrófono. Es necesario aceptar para que funcione la herramienta de voz.

Cuando acabes, pulsa 'Stop'. Puedes repetir el proceso tantas veces como quieras. También puedes borrar un audio y grabar otro si así lo deseas. Si tu dispositivo no tiene micrófono, pasa a la página siguiente.

Grabar Stop

Using voice inputs in web surveys

2 ways of answering open-ended questions orally

Dictation

The screenshot shows a mobile application window titled "Encuesta" with a question in Spanish: "Explica por qué **confías** personalmente **algo** en las residencias. Por favor, danos tantos detalles como puedas. En tu respuesta, menciona si piensas que hay una diferencia entre residencias **públicas** y **privadas**." Below the question, there is a text input field containing the text "Es la experiencia que tengo". At the bottom of the input field, there are two buttons: "Dictando..." and "Stop". Below the entire input area, there are two large buttons: "Dictar" (orange) and "Stop" (grey).

Voice recording

The screenshot shows the same mobile application window titled "Encuesta" with the same question. Below the question, there is a recording interface. At the top of this interface, there are two buttons: "Grabar" (orange) and "Stop" (grey). Below these buttons, there is a section titled "Grabaciones" which includes a progress bar showing "0:00" and a speaker icon, and a "Borrar" (orange) button. At the bottom of the recording interface, there are two large buttons: "Grabar" (orange) and "Stop" (grey).

Expected benefits and limitations

Researchers

Participants

Disadvantages

Researchers

Participants

Benefits

Expected benefits and limitations

Researchers

Disadvantages

Participants

Longer/richer answers

More spontaneous

Emotions, etc.

Researchers

Benefits

Reduced time/effort to
provide information

No need for writing skills

Participants

Expected benefits and limitations

Researchers

Technical problems

Selection bias

Data protection/ethical issues

Disadvantages

Participants

Privacy issues

Context not conducive to speaking

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Longer/richer answers

More spontaneous

Emotions, etc.

Benefits

Participants

Reduced time/effort to provide information

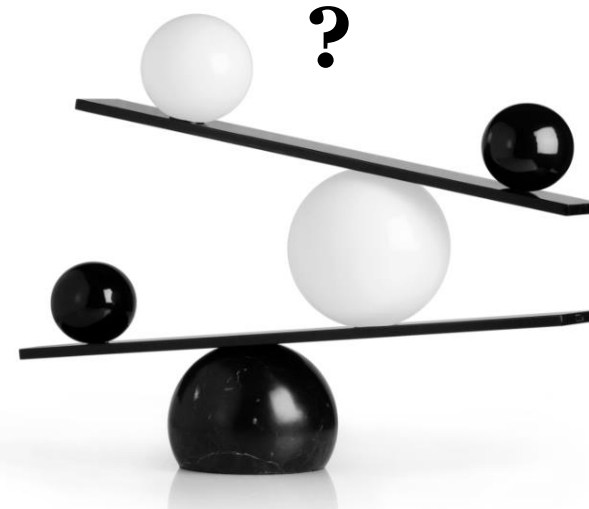
No need for writing skills

Expected benefits and limitations

Researchers

- Technical problems
- Selection bias
- Data protection/ethical issues

Limited research to date but not enough to evaluate relative importance of benefits and limitations



Researchers

- Longer/richer answers
- More spontaneous
- Emotions, etc.

Disadvantages

Participants

- Privacy issues
- Context not conducive to speaking

Benefits

Participants

- Reduced time/effort to provide information
- No need for writing skills

This study



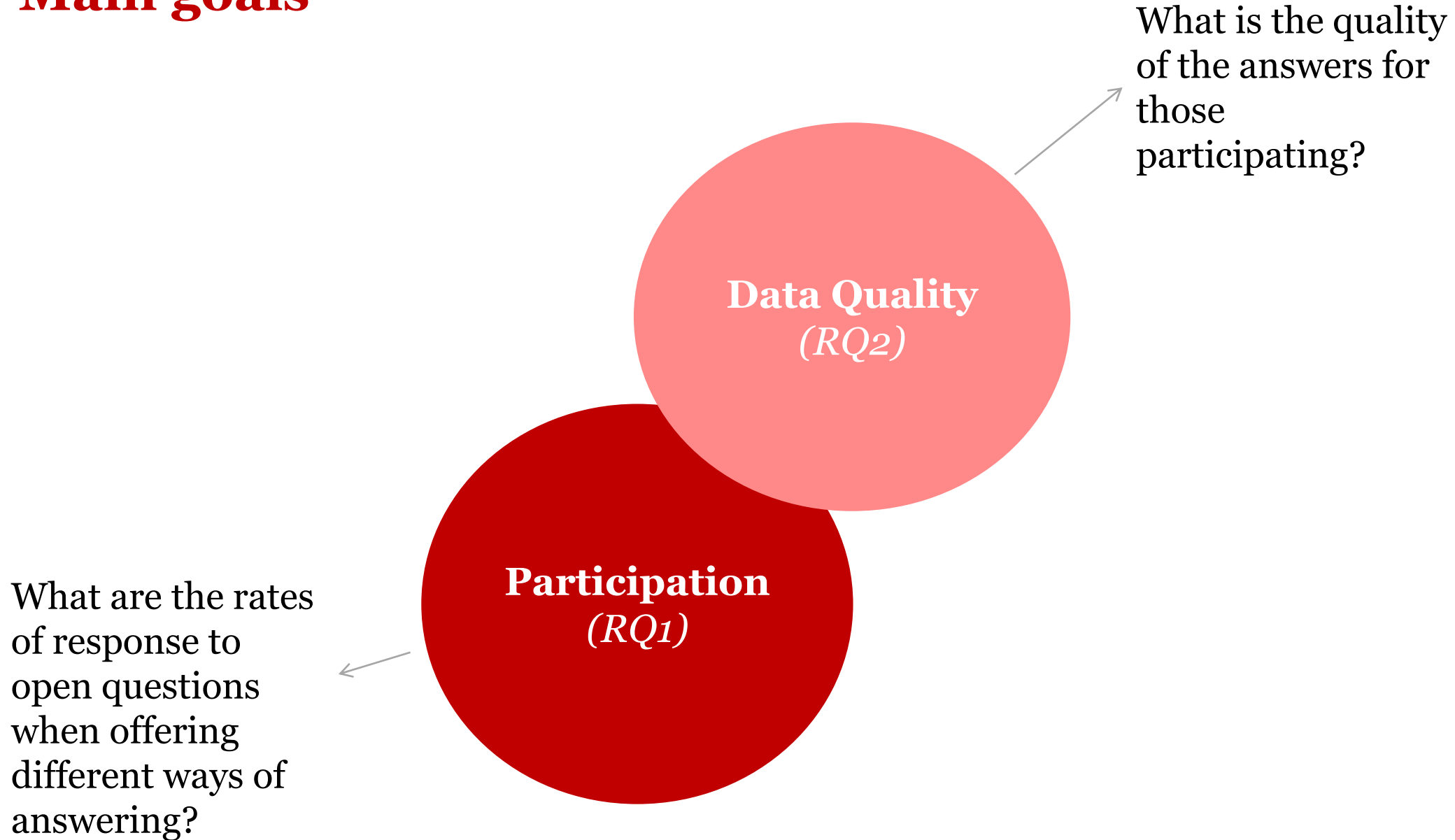
Main goals

What are the rates of response to open questions when offering different ways of answering?

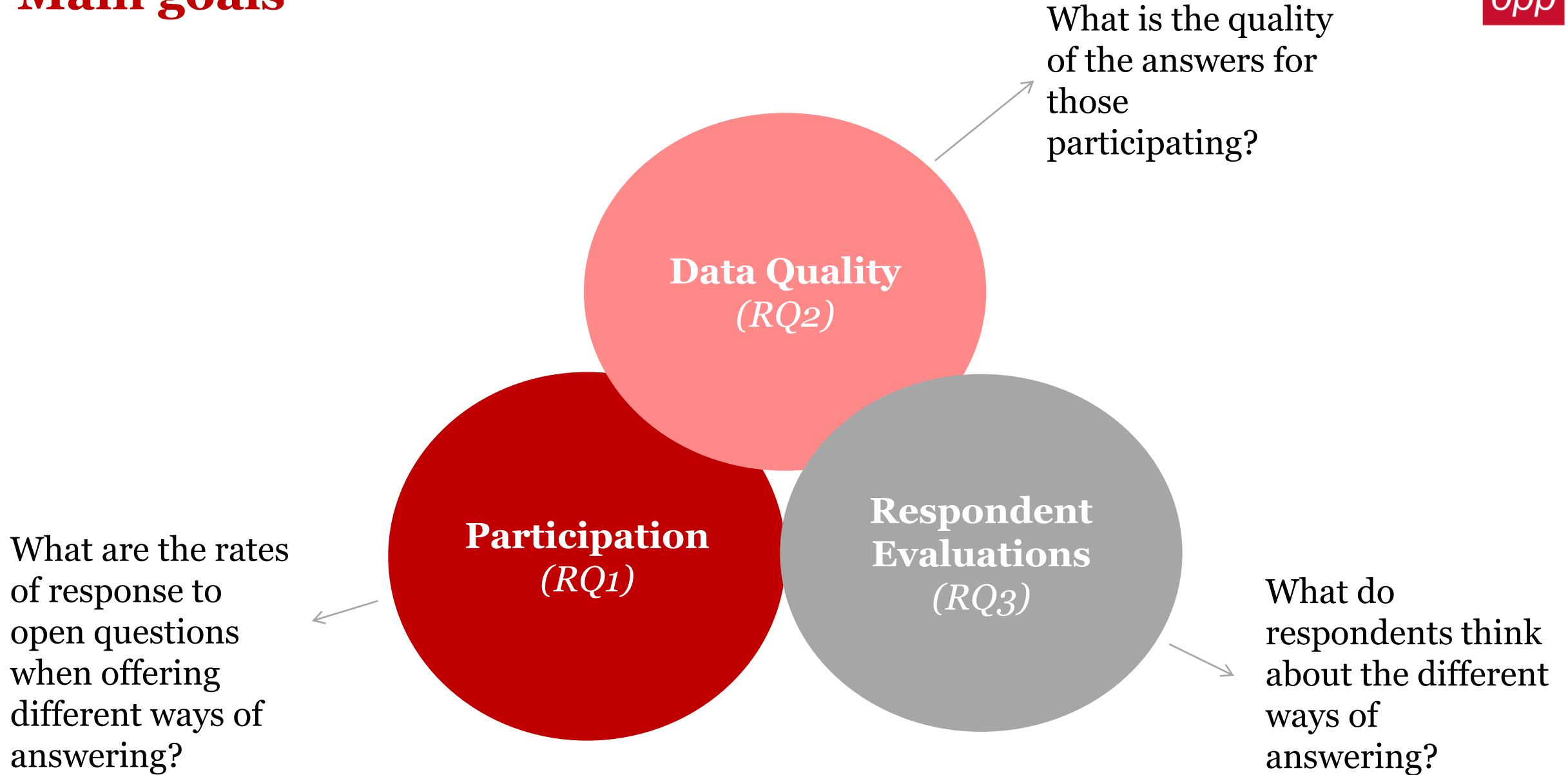


Participation
(RQ1)

Main goals



Main goals



Contribution

New tool
(WebdataVoice)

Different topic

Android + iOS



**Text
alternative
always available**

Mobiles + PCs

THIS STUDY

Survey about perceptions of nursing homes in Spain



Max of 82 questions → 2 experimental = our focus

Survey about perceptions of nursing homes in Spain

Max of 82 questions → 2 experimental = our focus



WHY TRANSP

Explain why you think that nursing homes provide [*no information at all/very little/some/a lot of/a huge **amount of information***] about the implementation of their services.



WHY TRUST

Explain why you personally [*not at all/very little/somewhat/very much/completely*] **trust** nursing homes.

Survey about perceptions of nursing homes in Spain

Max of 82 questions → 2 experimental = our focus



WHY TRANSP

Explain why you think that nursing homes provide [*no information at all/very little/some/a lot of/a huge **amount of information***] about the implementation of their services.



WHY TRUST

Explain why you personally [*not at all/very little/somewhat/very much/completely*] **trust** nursing homes.



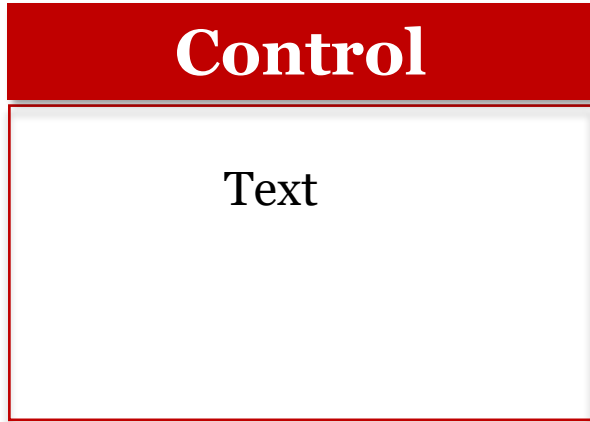
Please give as much detail as you can. In your answer, mention if you think there is a difference among **public** and **private** nursing homes.

THIS STUDY

Design for the 2 experimental questions



Design for the 2 experimental questions



Design for the 2 experimental questions

Control

Text

PushDictation

- 1) Dictation
- 2) If no answer: + Text



Design for the 2 experimental questions

Control

Text

PushDictation

- 1) Dictation
- 2) If no answer: + Text



“You have not provided any answer to our previous question. This is a key question for our research. **Please, consider again answering it. If you cannot or do not want to use the dictation function, you can type in your answer in the textbox below.**”

Design for the 2 experimental questions

Control

Text

PushDictation

- 1) Dictation
- 2) If no answer: + Text

PushRecording

- 1) Recording
- 2) If no answer: + Text



“You have not provided any answer to our previous question. This is a key question for our research. Please, consider again answering it. If you cannot or do not want to use the dictation function, you can type in your answer in the textbox below.”

Design for the 2 experimental questions

Control

Text

Choice

- Text
- Dictation
- Recording

PushDictation

- 1) Dictation
- 2) If no answer: + Text

PushRecording

- 1) Recording
- 2) If no answer: + Text



“You have not provided any answer to our previous question. This is a key question for our research. Please, consider again answering it. If you cannot or do not want to use the dictation function, you can type in your answer in the textbox below.”

Data: fieldwork and target population

Data collection

Netquest opt-in online panel in Spain
February/March 2023

Population of interest

Adult online population living in Spain

Quotas

Gender & Age + Education + Autonomous community

THIS STUDY

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THIS STUDY

Data: number of participants



1,170

Answered first question after all filters

Data: number of participants

1,170

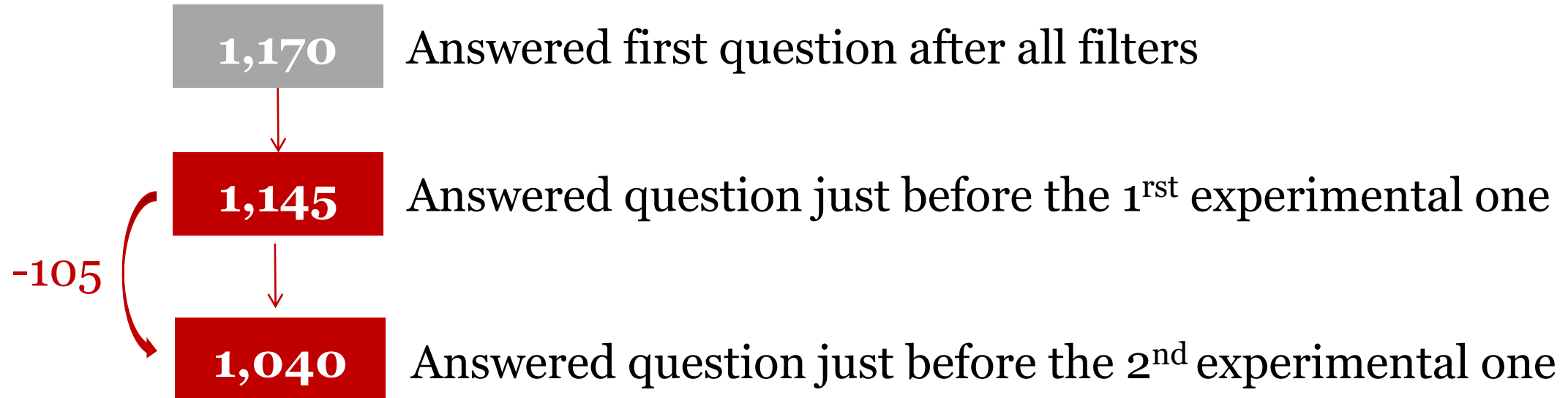
Answered first question after all filters



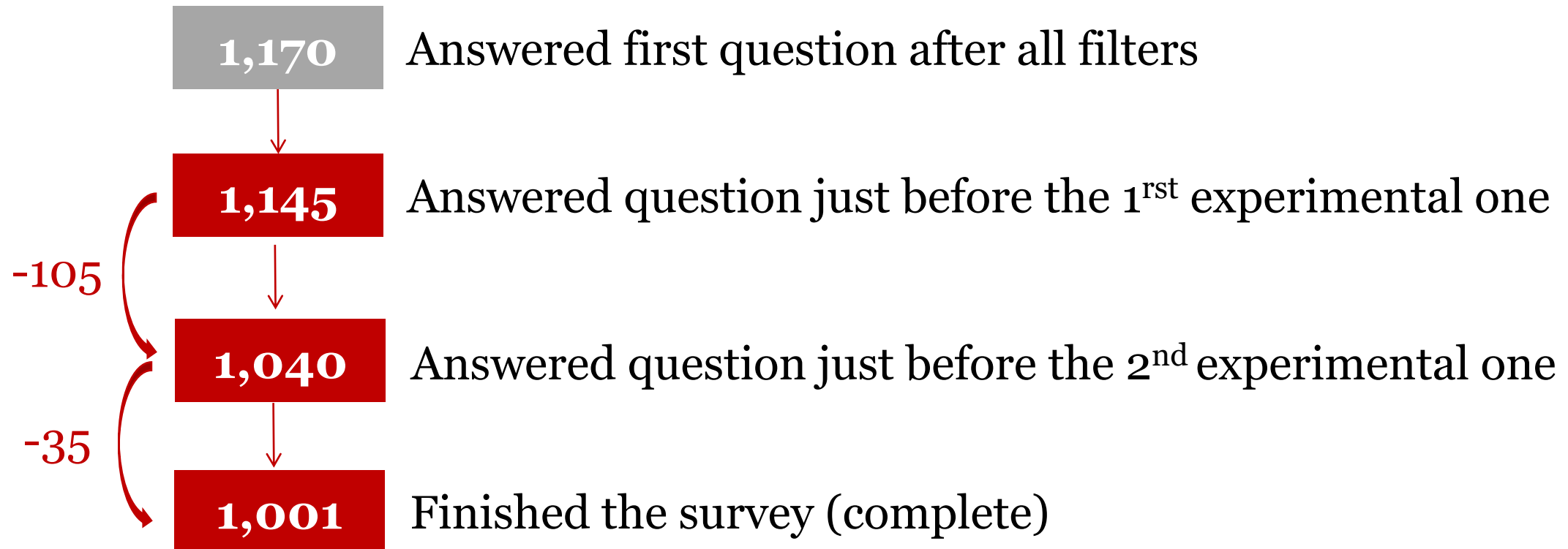
1,145

Answered question just before the 1^{rst} experimental one

Data: number of participants



Data: number of participants



Participation
(RQ1)

Data Quality*
(RQ2)

**Respondent
Evaluations**
(RQ3)



For each experimental question:

- Breakoff
- Item non-response
- Response
- Voice Response




Participation
(RQ1)



For each experimental question:

- Breakoff
- Item non-response
- Response
- Voice Response



Data Quality*
(RQ2)

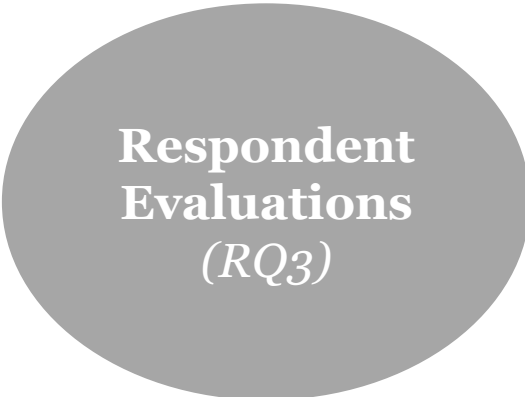


For those finishing the survey:

- Valid answers (WHY TRANSP)

For valid answers:

- Number of characters
- Number of themes



**Respondent
Evaluations**
(RQ3)




Participation
(RQ1)



For each experimental question:

- Breakoff
- Item non-response
- Response
- Voice Response



Data Quality*
(RQ2)

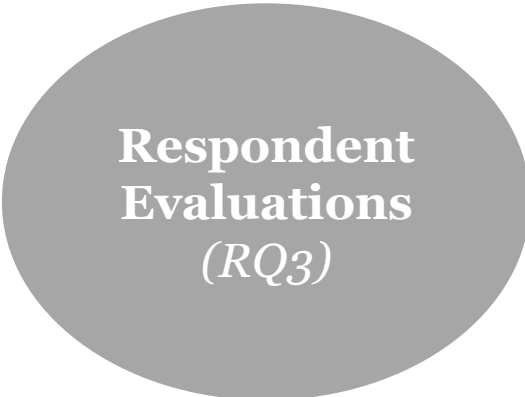


For those finishing the survey:

- Valid answers (WHY TRANSP)

For valid answers:

- Number of characters
- Number of themes



Respondent Evaluations
(RQ3)

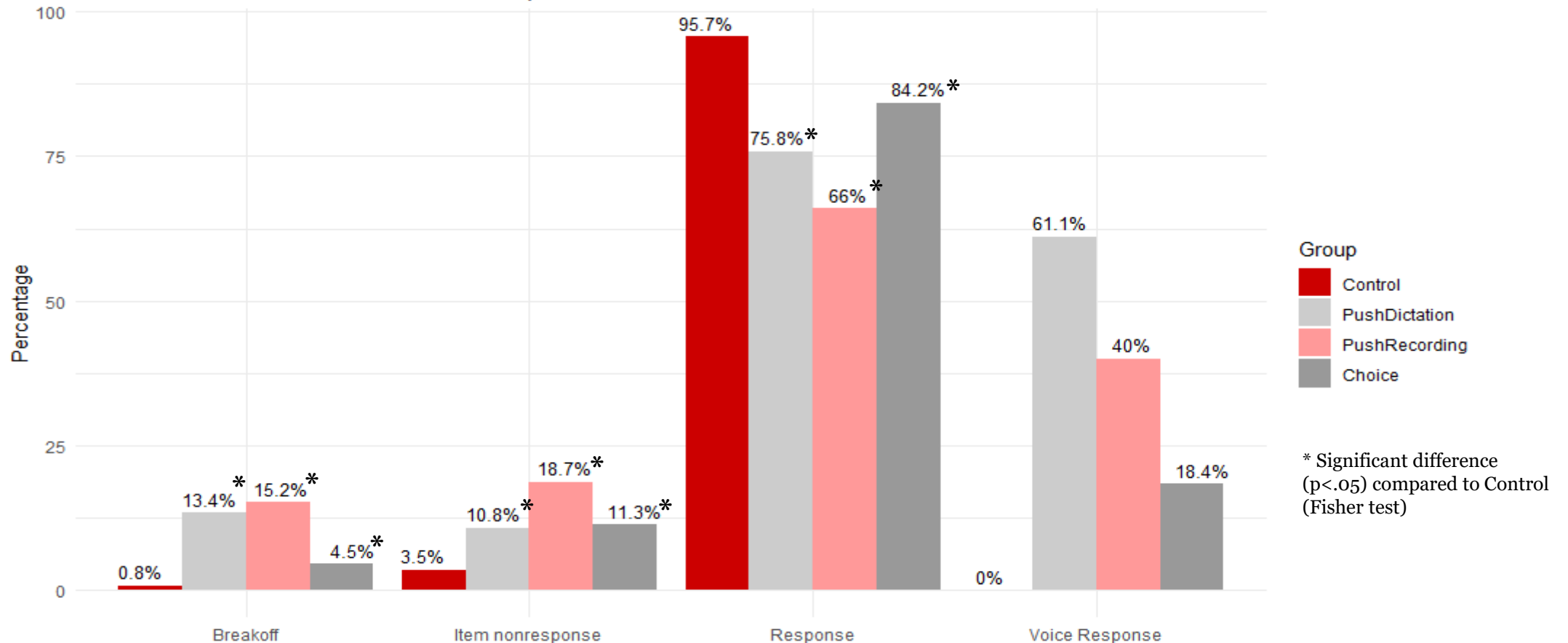


For those answering:

- Difficult/easy
- Dis/liked

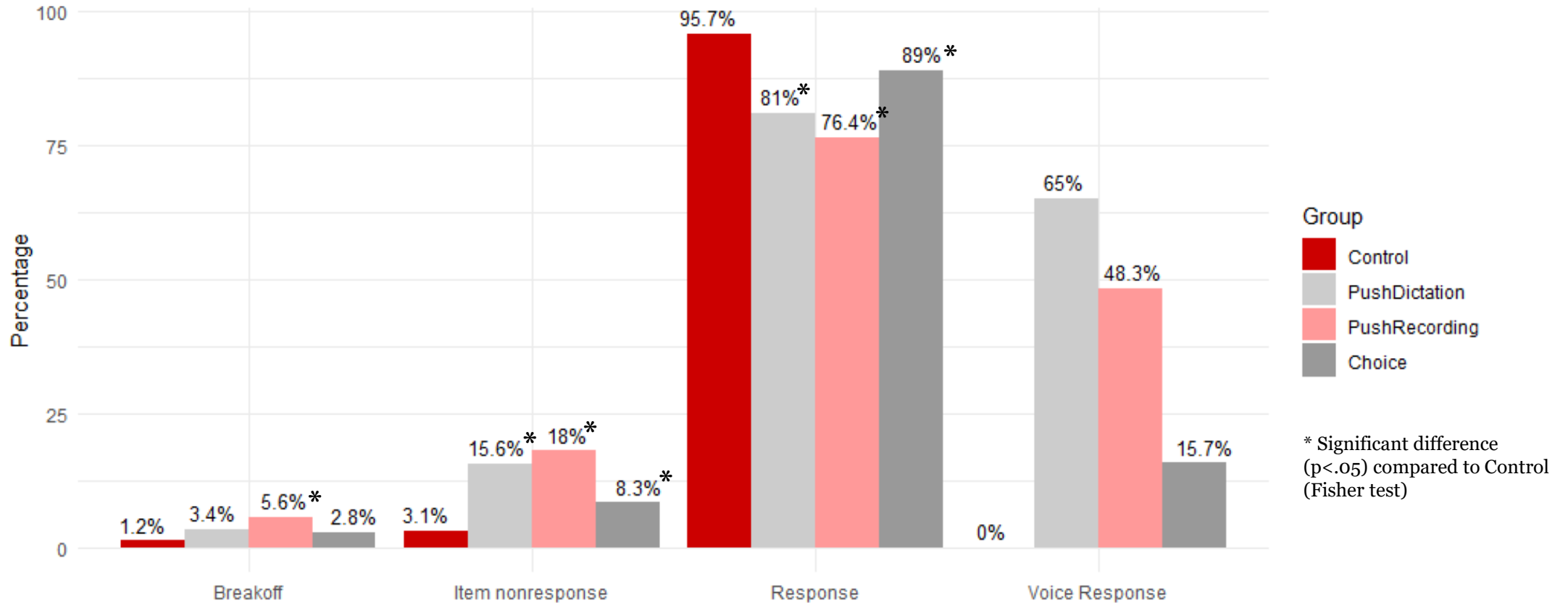
Main results

Participation (RQ1): WHY TRANSP



- ➔ Lower participation in all treatment groups, even if Text was always offered
- ➔ Follow-up with Text increases participation; majority in Choice use Text

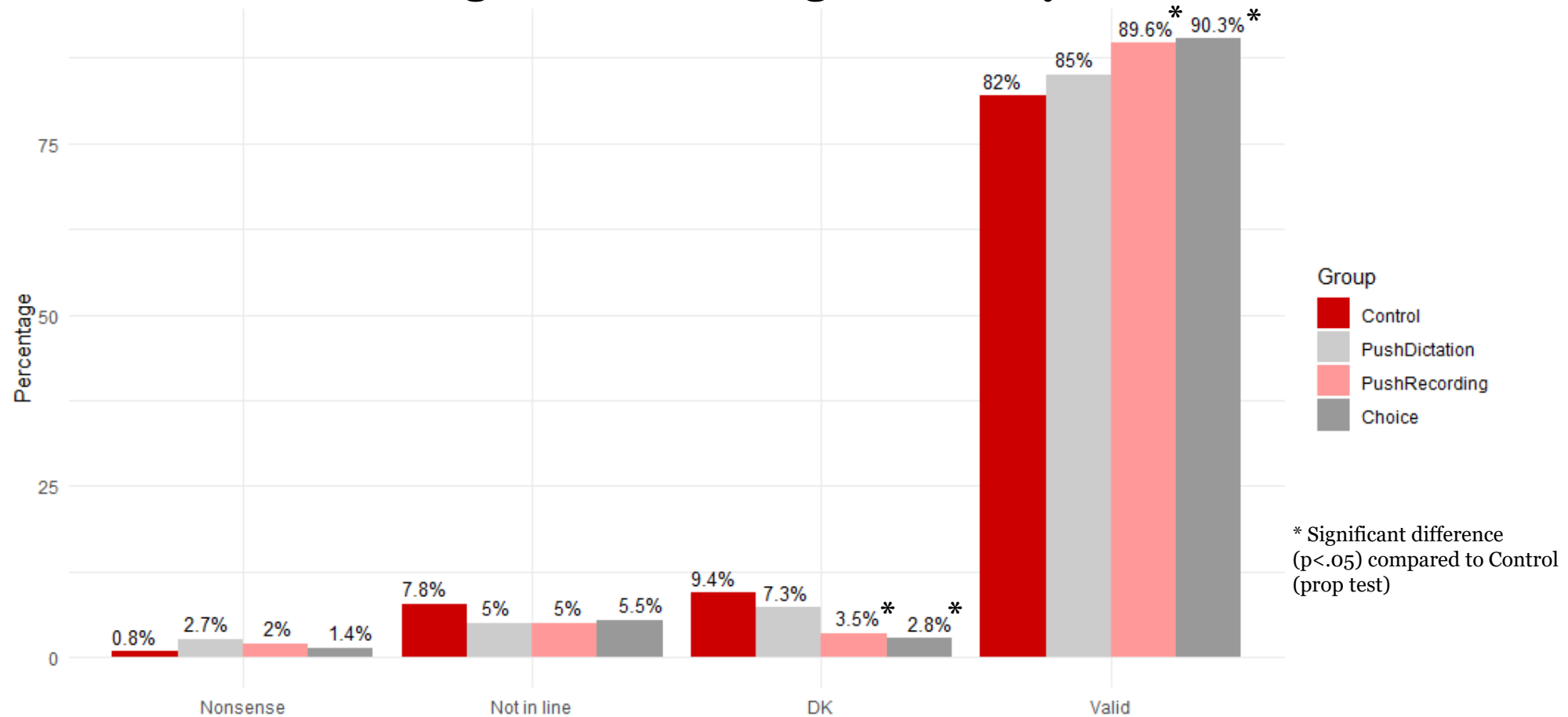
Participation (RQ1): WHY TRUST



➔ Lower breakoff in general; still non-trivial item non-response in voice input groups

Data Quality (RQ2): Valid answers WHY TRANSP

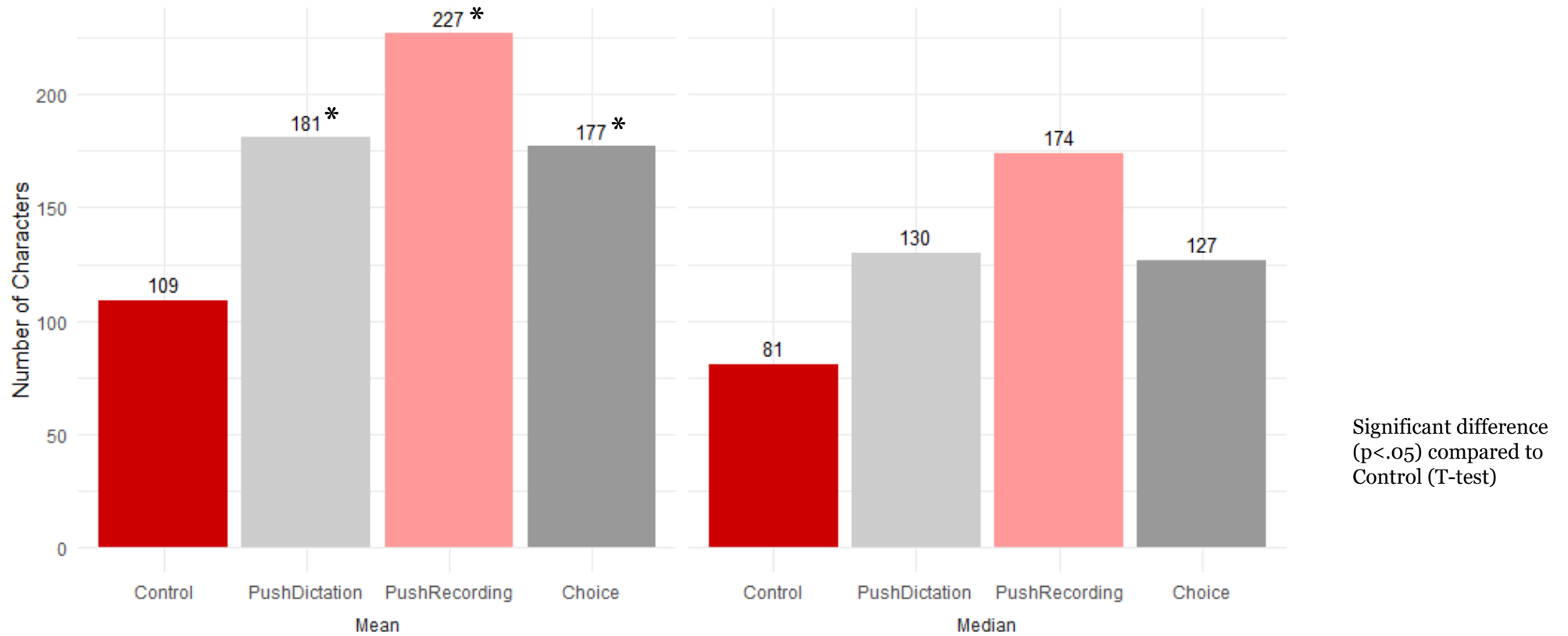
Among those finishing the survey



➔ More valid answers in voice input groups (significant for PushRecording/Choice)

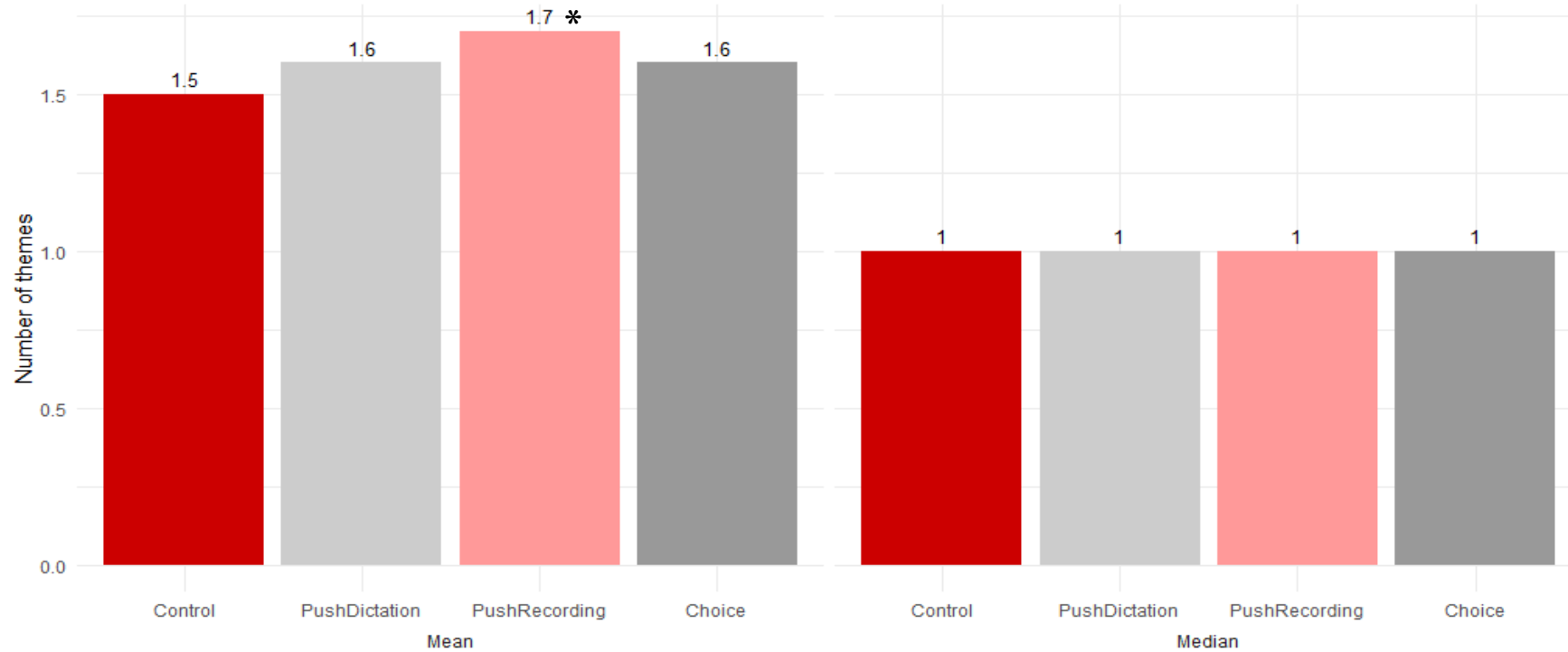
Data Quality (RQ2): Number of characters WHY TRANSP

Among those providing valid answers



➔ More characters in the groups offered voice inputs, especially PushRecording

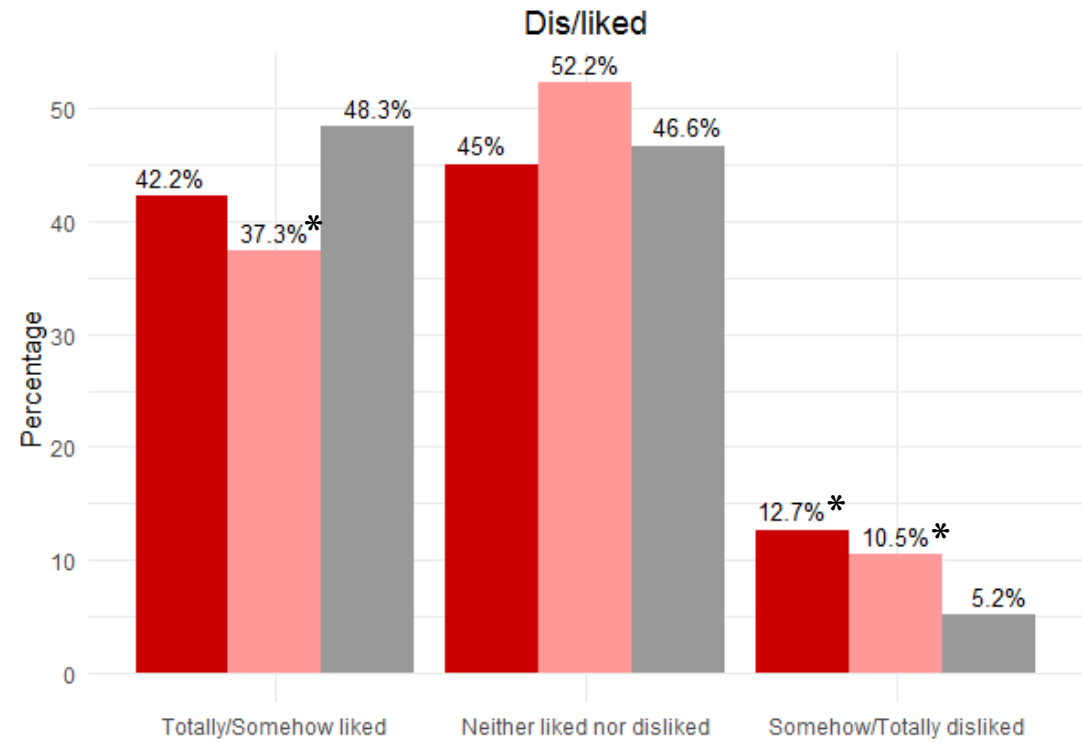
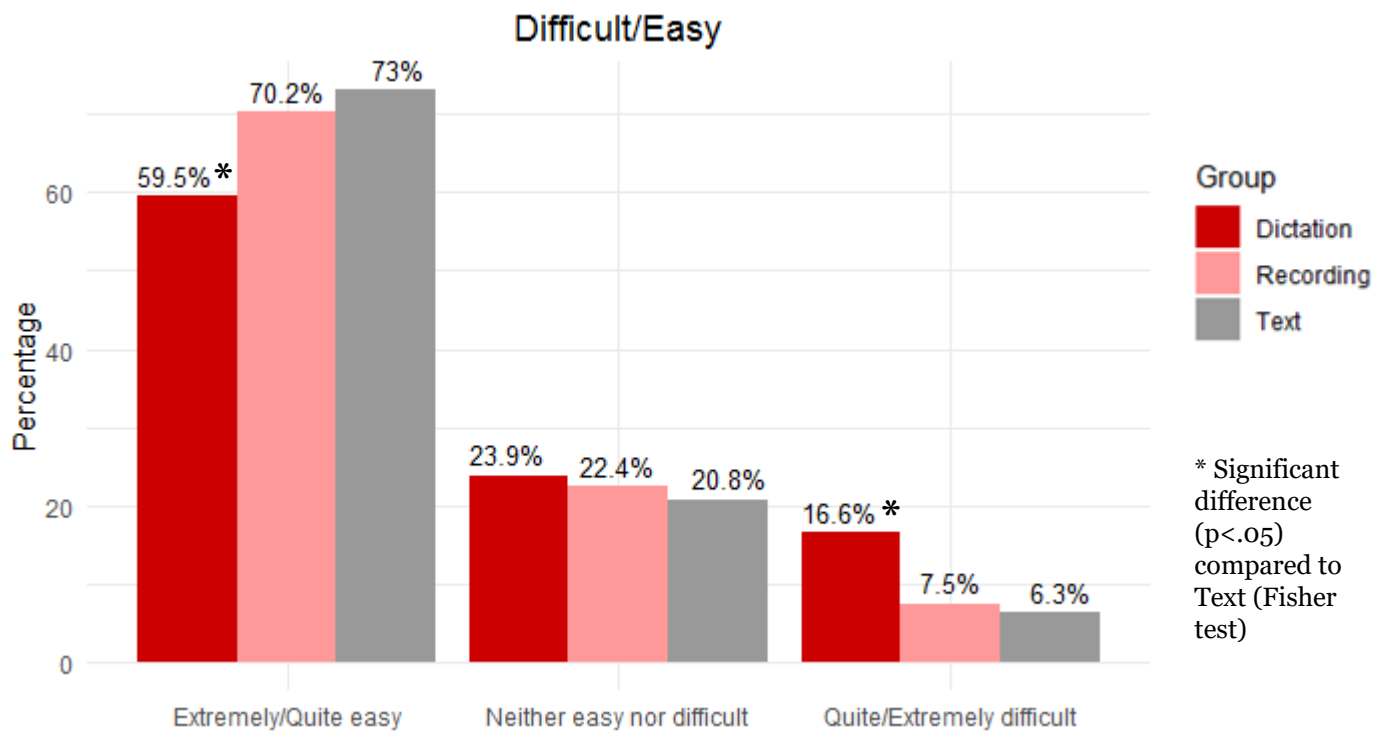
Data Quality (RQ2): Number of themes WHY TRANSP



* Significant difference (p<.05) compared to Control T-test)

➔ Average number of themes higher for PushRecording

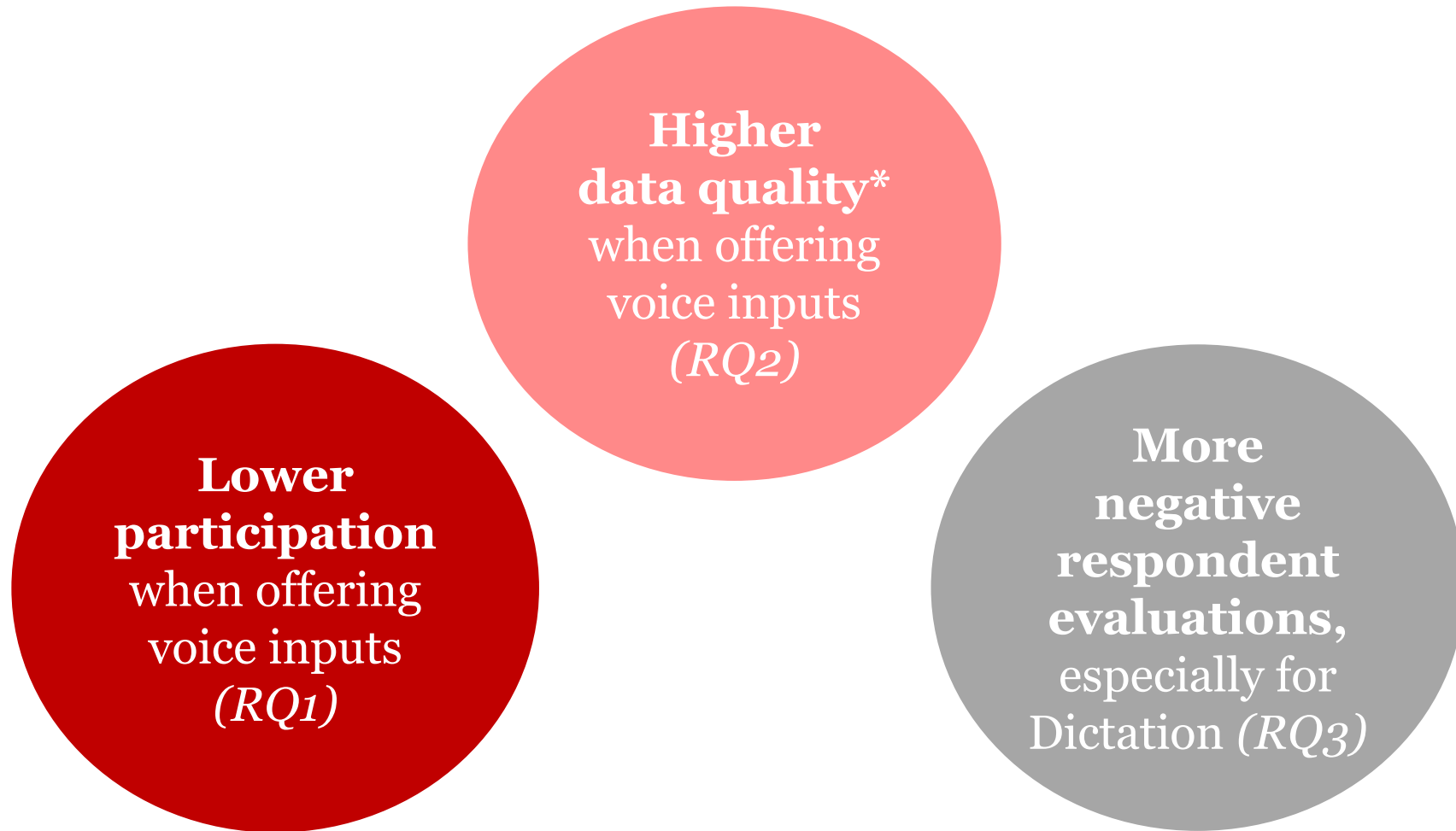
Respondent Evaluations (RQ3)



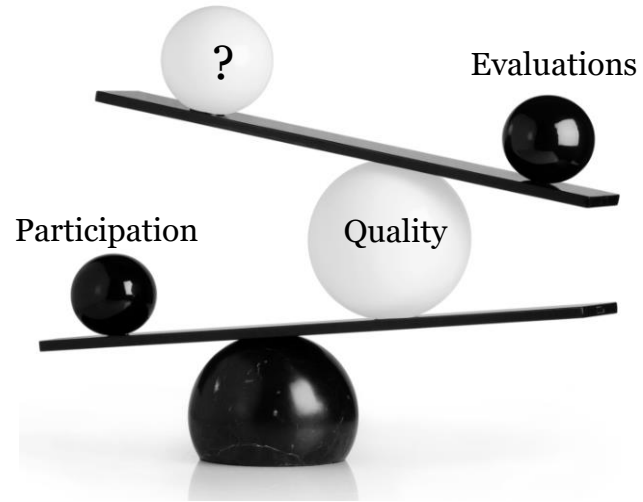
➔ Dictation: more difficult and more disliked (for those using it)

Conclusions

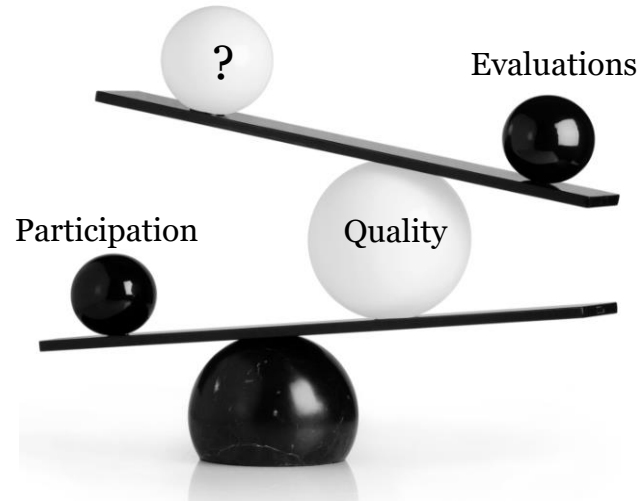
Summary of results



Not a clear balance



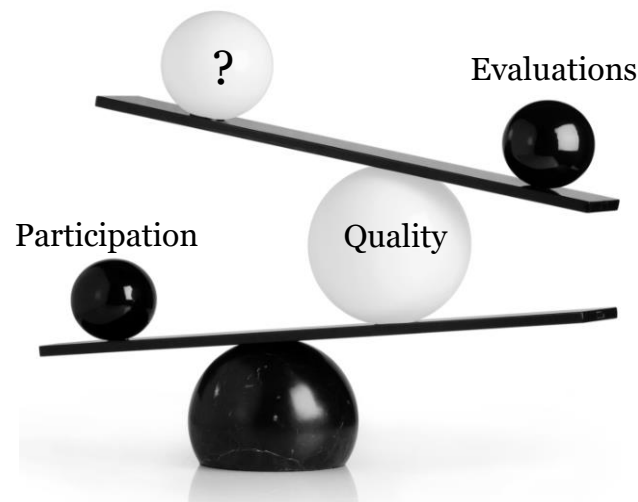
Not a clear balance



More research needed!

Results presented today still preliminary, more analyses are underway

Not a clear balance



More research needed!

Results presented today still preliminary, more analyses are underway

Practical implications?

Trying to improve voice input to increase uptake (across several studies) is proving to be very difficult. Even when offered a text alternative, it does not work as well as hoped → Think carefully before offering such options!

Thanks!

Questions?

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<https://www.upf.edu/web/webdataopp>



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