

# Presenting 'don't know' in web surveys

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## Mixed-mode

- primary data collection is expensive → looking for more cost efficient data collection.
- introducing mixed mode data collection for most surveys → Web surveys will play an important role.
- drawbacks of MM data collection → mode effects must be minimized → experiments.



# Mode effects in Questionnaire design

The way in which “don’t know” is presented in the different modes can have an effect on the gathered data.

→ The present experiment.



# Method:

## Four versions of 'don't know'

### Variant 1 "Always":

*Don't know* is always presented on screen, together with the other response options.

### Variant 2 "Never":

*Don't know* is never presented.

### Variant 3 "Hidden":

*Don't know* is not presented directly. Only if a respondent tries to skip the question, the option is presented with the other response options. (Procedure is explained on opening screen)

### Variant 4 "Button":

*Don't know* is presented less visually prominent, as a button at the bottom of the screen.



**Questionnaire  
Laboratory  
Test  
2007**

## Health and Food

Have you, or has any of your family members, ever had ARTHROSIS?

explanation

- Yes
- No
- Don't know



**Questionnaire  
Laboratory  
Test  
2007**

### Health and Food

Have you, or has any of your family members, ever had ARTHROSIS?

explanation

- Yes
- No



**Questionnaire  
Laboratory  
Test  
2007**

### Health and Food

Have you, or has any of your family members, ever had ARTHROSIS?

explanation

- Yes
- No
- Don't know

This question has to be answered, before you can continue.





**Questionnaire  
Laboratory  
Test  
2007**

### Health and Food

Have you, or has any of your family members, ever had ARTHROSIS?

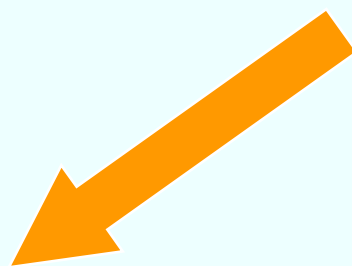
explanation

- Yes
- No



Statistics Netherlands

Don't know



# Method: Test respondents

In total 36 test respondents	
<b>Gender</b>	
Men	11
Women	25
<b>Age</b>	
17 – 35	11
36 – 50	13
51 - 68	12
<b>Education</b>	
Low	12
Middle	14
High	10
<b>Experience with computers</b>	
Little	10
Much	26
<b>Experience with web surveys</b>	
Little	20
Much	16



# Method: The experimental design

	Total (36)	Gender		Age group			Education		
		Male	Female	17-35	36-50	51-68	Low	Mean	High
Variant 1 “Always”	6	1	5	3	1	2	1	3	2
Variant 2 “Never”	6	2	4	2	2	2	2	3	1
Variant 3 “Hidden”	13	3	10	3	6	4	3	4	6
Variant 4 “Button”	11	5	6	3	4	4	6	4	1



## Method: Test Questionnaire

In order to evoke as many as possible DK-answers the questionnaire was composed of “difficult” questions on several subjects, for example:

- *What is the value of your Quetelet index?*
- *How much money was spent on medical costs this year by your household?*
- *Do you think that the present government policy has a positive or negative influence on your personal financial situation?*
- *In a family, the husband should be breadwinner and the wife should take care of the children. (agree or disagree)*
- *Having an education is more important for boys than for girls. (agree or disagree)*



# Method

## The test

- Respondents were invited to come to the office to fill in a questionnaire on the computer.
- They were asked to think out loud.
- The interviewer observed the respondent's behaviour while filling in the questionnaire, this was followed by an in-depth interview with follow-up questions.
- All interviews were recorded on video.



# Results (1)

	"Don't know" variants			
	Variant 1 "Always" (n=6)	Variant 3 "Hidden" (n=13)	Variant 4 "Button" (n=11)	Total (n=30)
Respondents that use DK	6	7	3	16
Percentage that use DK	100%	54%	27%	53%
Total number of DK's	28	25	14	67
Mean use of DK (if used)	4,7	3,6	4,7	4,2



## Results (2)

### Respondents in the variants:

	Variant 1 "Always" (n=6)	Variant 2 "Never" (n=6)	Variant 3 "Hidden" (n=13)	Variant 4 "Button" (n=11)	Total (n=36)
Preference for Variant 1 "Always"	3	2	6	9	20
Preference for Variant 2 "Never"	0	0	1	0	1
Preference for Variant 3 "Hidden"	2	4	6	2	14
Preference for Variant 4 "Button"	1	0	0	0	1



## Results (3)

Respondents deal differently with “don’t know”:

→ On the one hand those who think “don’t know” is the best answer, because it is better than guessing.

→ On the other hand those who just do not want to answer “don’t know”, because they don’t want to present themselves as being uninformed.

Researchers should always be aware of this “bias” in the data, and...





## Results (4)

And... there are different strategies to deal with it.  
For instance:

- Adding a filter question before asking an attitude question: “do you have an opinion about...”
- Adding a follow-up question, when DK is answered: “What would you say if you really had to make a choice?”
- Providing a response option: “Other, please specify: ...”
- Asking open questions.
- Informing all respondents that DK is a relevant and useful answer.
- Forcing all respondents to give an answer by never presenting DK.



## Results (5)

For Variant 1 “Always” and 2 “Never” the results are according to our expectations.

Respondents in Variants 3 and 4 can be divided into 2 groups:

- Those who know there is a DK option;
- Those who think there is no DK option.

But...



## Results (6)

But...you don't always know in advance which respondent belongs to which group, for instance:

Why has a respondent not answered DK to a question?

- Either, the respondent really does know the answer.
- Or, the respondent knows there is a DK option, but doesn't want to answer DK.
- Or, the respondent does not know there is a DK option and guesses.
- Or, the respondent is not participating seriously and is just answering at random?



# Conclusions (1)

	Advantage	Disadvantage
<b>Variant 1 “Always”</b>	<ul style="list-style-type: none"><li>• Respondents can always answer DK if they want to.</li></ul>	<ul style="list-style-type: none"><li>• Danger of DK being used as escape (satisficing).</li></ul>
<b>Variant 2 “Never”</b>	<ul style="list-style-type: none"><li>• No missing values in the data.</li></ul>	<ul style="list-style-type: none"><li>• It is unknown whether answer corresponds with respondent’s actual opinion.</li><li>• Danger of drop-out.</li></ul>
<b>Variant 3 “Hidden”</b>	<ul style="list-style-type: none"><li>• Satisficing is discouraged.</li></ul>	<ul style="list-style-type: none"><li>• Not all respondents know DK is an option, notwithstanding the announcement.</li><li>• A lot of mouse clicks in order to answer DK.</li><li>• It is unknown whether answer corresponds with respondent’s actual opinion.</li></ul>
<b>Variant 4 “Button”</b>	<ul style="list-style-type: none"><li>• Satisficing is discouraged.</li></ul>	<ul style="list-style-type: none"><li>• Not all respondents know DK is an option, because the button is too far out of sight.</li><li>• It is unknown whether answer corresponds with respondent’s actual opinion.</li></ul>



## Conclusions (2)

If for questions certain knowledge is assumed, which not every respondent will have, “don’t know” should always be presented close to the other response options.

→ In other words: for questions to which “don’t know” is a relevant response option, it should be possible to answer so.

We advice against using a hidden DK-option.



Questions?

