Question in Project:

PaCo - Mechanisms of panel conditioning in longitudinal surveys: Questions on social desirability, gender roles, and environment (English Version)

Question Topic:

Environment/ Environmental knowledge & perception

Construct:

Environmental knowledge: Energy per transport vehicle

General Information:

Note: This item was tested in German. This is an English translation of the original German wording.

Question Text:

Which mode of transport do you think consumes the most energy on average per person and per km?
[Was glauben Sie, welches Verkehrsmittel verbraucht durchschnittlich pro Person und pro km am meisten Energie?]

Answer Categories:

Commuter train/ regional rail *[Nahverkehrszug/Regionalbahn]*
Subway *[U-Bahn]*
Tram *[Straßenbahn]*
Omnibus *[Omnibus]*
Car *[Auto]*
Don't know [Weiß nicht]

Cognitive Techniques:

Category Selection Probe, Confidence Rating, Specific Probe

Findings for Question:

Do the test persons have difficulties in to understand the questions?

Of the ten test persons, half (n = 5) chose the correct answer option ("Car"). One test person each selected the options "Omnibus" (TP 08) and "Commuter train/regional rail" (TP 04). Three indicated that they did not know the answer to the question:

- *"I would have guessed subway, but I'm very unsure due to that. I really don't know. I have not yet dealt with it and did not want to answer wrongly."* (TP 02; Answer: "Don't know")

- *"I really don't know. And it is too obvious to immediately condemn the car and credit the other things. I don't know what consumes the most energy per person."* (TP 06; Answer: "Don't know")

- *"I don't know, I wouldn't know what to take due to. The regional train? I really don't know. Car, I don't know."* (TP 07; Answer: "Don't know")

None of the ten test persons show difficulties in understanding the question.

Do test persons understand that per person and per kilometer is the maximum number of passengers?

Of the five test persons who selected the correct answer ("car"), all referred in their justification to the maximum number of persons that can be transported in the means of transport:

- *"Because I think that the car, if you calculate it per person and per kilometer, consumes the most fuel, because it can transport so few people and because it consumes a lot of energy in the process behind it, I would say in the extraction of fuels or in the production [...]."* (TP 01)

- *"Because the car carries the fewest people."* (TP 03)

- *"Often there's only one person in a car like that, and that goes for me, too. If there are two, three, four or five people in it, then it's naturally less in proportion. But that starts with the streetcar. It runs on electricity - which of course has to come from coal or somehow. But more people use it. So the less energy is consumed per person."* (TP 09)

Those test persons who chose one of the wrong answer options (TP 04, 08) justified it by the frequency of trips or the size of transport means:

- *"Because the trains and trains, regional trains very often and frequently and also drive long distances. This is the first thing that came to mind when I think of the railroads."* (TP 04; Answer: "Commuter train/regional train")

- ∎ *"I chose it because it's a bigger vehicle than the car. [The] streetcar has more to do with electric. If [the] airplane were included, I would say airplane."* (TP 08; Answer "Omnibus")

How sure are the test persons that their answer is correct?

As can be seen in the table for probing question N2_F7, the test persons' perceived confidence in answering the question varied. Those test persons who had selected the correct answer ("car") were "very certain" or "rather certain" (TP 01, 03, 09, 10). Test persons who had chosen one of the other answer options were "rather uncertain" (TP 04, 08). Test person 05 was "rather uncertain" despite the correct answer. The test persons who had not selected an answer ("Don't know") were not asked for their assessment.

How difficult (for the general public) do the test persons think the question is?

The Confidence Rating was followed by Specific Probing, which asked for an assessment of the difficulty of the question in a "real" survey. Nine of the ten test persons gave such an assessment. Test person 06 was not able to make an assessment and justified this by not knowing the correct answer to the question herself: "*I can't judge that. Probably many, which then makes it even more embarrassing for me.*" Four of the nine test persons estimated a value which was above 50 percent (TP 01, 03, 09, 10).

The original answer of these test persons to question 7 corresponded to the correct one ("Auto"). In addition, these test persons were "rather" or "very certain" that their answer was correct. The indicated value of the remaining five test persons was below 50 percent (TP 02, 04, 05, 07, 08). These include those who were "rather uncertain" of their answer (TP 04, 05, 08) and test persons who did not know the answer to question 7 (TP 02, 07).

Recommendations:

Questions: No changed recommended.

Response options: No changed recommended.

Question documented in ZIS (DOI):

https://zis.gesis.org/DoiId/zis38