Fighting nonresponse in telephone interviews: successful interviewer tactics

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Fighting Nonresponse in Telephone Interviews; Successful Interviewer Tactics[1]

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Abstract: In telephone interviews interviewers have far less time to persuade sampling units to cooperate than in a face-to-face interview. Furthermore, they also have less information to tailor their behaviour due to the limited channel capacity of the telephone. Nevertheless, experienced telephone interviewers have a 'tool box' of tactics, which they apply expertly. In this paper we describe the tactics to fight nonresponse as reported by experienced telephone interviewers at Statistics Netherlands.

Keywords: survey participation, cooperation, telephone interview, persuasion, interviewer role, concept mapping

1   Introduction

Telephone survey interviews have become more and more popular in the last thirty years. Main advantages of the telephone interview, as compared with the face-to-face interview, are less costs and stricter interviewer control (De Leeuw 1992). Like all data collection methods, telephone surveys also suffer from nonresponse, which forms a serious threat to the quality of the data.

To successfully fight nonresponse, knowledge about causes of survey (non)participation is needed. In their comprehensive theoretical review on survey participation Groves, Cialdini and Couper (1992) stress the importance of the interviewer-respondent interaction. During the initial moments of contact the interviewer is the initiator and dominant actor in this interaction, and much depends on the interviewer's ability to persuade the potential respondent. Empirical research shows that there is a considerable variation in response rates between telephone interviewers (Lyberg and Dean 1992; Collins et al. 1988; Oksenberg and Cannell 1988).

While nonresponse research in telephone surveys has focussed more on the technological and administrative aspects (e.g., optimal timing, the challenge of the answering machine), research regarding the face-to-face interview has centered on the human interaction and persuasion strategies. For instance, Morton-Williams (1993) analyzed tapes of 'door-step' interaction in relation to respondent cooperation. Interviewers who deviated from the prescribed 'script' were more successful in persuading reluctant respondents than interviewers who rigidly followed the introductory script. Morton-Williams emphasizes the importance of social skills to perceive and adapt to individual doorstep situations. In their theory of survey participation, Groves et al. (1992) emphasize the importance of 'tailoring' this is the use of different approaches - in words, behaviour and strategies - for different sampling persons. They also highlight the concept of 'maintaining interaction.' Maintaining interaction means that successful interviewers avoid a hard refusal by stepping back and keeping the opportunity open to contact the respondent again. There is some empirical evidence of the importance of these factors (cf. Campanelli et al. 1997; Groves and Couper 1994). Snijkers, Hox, and De Leeuw (1996) identified eight factors that experienced interviewers use to obtain cooperation in a face-to-face survey. Among these were, projecting a positive image by social skills, tailoring the introduction, and maintaining communication.

Telephone interviews and their introductions differ on important points from the face-to-face interview. First, face-to-face interviewers have more opportunities to collect the information about the respondent that is necessary for successful tailoring. They can use both the visual and auditive channels of communication (cf. De Leeuw 1992), both before the attempted interview (neighbourhood, type of housing) and during the introduction (appearance of respondent, body language, and verbal cues) (cf. Couper and Groves 1996). In telephone interviews only the auditive channel is available, limiting the interviewer to receive and transmit information using verbal and paralinguistic cues only. It all depends on what is being said and how it is said (e.g., the tone of voice). Second, telephone interviewers have far less time to convince a reluctant sampling unit. Typically, in face-to-face interviews initial interaction is completed within five minutes, while in telephone interviews the majority of the decisions to cooperate or refuse, are made within one minute (Groves 1992).

In sum, telephone interviewers have fewer clues, fewer means, and less time to tailor than face-to-face interviewers. Still, there is variation in response rate between telephone interviewers. Several studies have attempted to identify characteristics of successful interviewers. Oksenbergh and Cannell (1988) address the limited channel capacity of the telephone interview, focussing on interviewer vocal characteristics. They found that interviewers rated as speaking rapidly, clearly and loudly and perceived as sounding confident and successful, had lower refusal rates. Others focussed on the verbal respondent-interviewer interaction. For instance, Maynard, Schaeffer, and Cradock (1993) used conversational analysis on telephone introduction and discovered that refusals occur when

interviewers fail to address questions adequately. Houtkoop-Steenstra and Van den Bergh (1994) found in an experiment that a 'conversational' introduction in which interviewers were allowed to use their own words, produced fewer refusals than scripted standard introductions. Both studies suggest that adequate tailoring may work in telephone introductions. This was confirmed by Couper and Groves (1996), who showed that tailoring increased the likelihood of cooperation in telephone surveys. They also present evidence that after a negative statement of the respondent tailoring may increase the likelihood of cooperation.

Pondman (1998), following Smit and Dijkstra (1991), takes this one step further and concentrates on what elements make for successful tailoring. She identifies four rules: (1) avoid asking 'why', (2) avoid repeating the refusal, (3) offer to call back when refusal states lack of time, and (4) react to other refusals by giving positive, relevant information about the interview.

In this study we broaden the approach and portray the tactics used by experienced telephone interviewers. Our main goal was to identify successful strategies that would be trainable to new, inexperienced interviewers. We used a highly structured interviewer debriefing study to draw upon the knowledge and wealth of experience that interviewers have (cf. Campanelli, Martin and Rothgeb 1991). In addition, we wanted to contrast these strategies with strategies described by successful face-to-face interviewers (Snijkers et al. 1996), thereby providing more insight in the special nature of telephone introductions.

In the next section we first give a short description of the group of experienced telephone interviewers who acted as informants and we outline the procedures used in concept mapping. We continue with the major results and end with a summary in which the similarities and dissimilarities of successful strategies for telephone and face-to-face interviews are discussed.

2   Method

2.1   Group studied

During the months March-May 1996 a field experiment was carried out at Statistics Netherlands using mixed-mode computer assisted data collection. This experiment was part of a larger implementation study for the redesign of the continuous survey on living condition (POLS).

Thirteen very experienced CATI-interviewers were selected for this task. Selection criteria were among others, good social skills, research minded, a generally high response rate and good interviewer performance as evaluated by their supervisors (cf. De Leeuw et al. 1996).

The interviewers were specially trained for the POLS study, but no special training in nonresponse reduction and persuasion of respondents was given. After completing the field experiment, the interviewers took part in a special evaluation and debriefing study.

2.2   Procedure

Part of the debriefing study was a focus group on successful tactics to obtain cooperation in a telephone survey. The knowledge of interviewers and the information on what defines successful strategies is often rather diffuse and unstructured. Therefore, to obtain structured and usable information we used the technique of 'concept mapping'. Concept mapping is a qualitative, but highly structured method to extract information from a group. A comprehensive system for concept mapping has been developed by Trochim (1989). The major advantage of this method is that it quickly leads from fuzzy knowledge to an interpretable conceptual framework, in our case on interviewer tactics to persuade the potential respondent. Furthermore, this framework can be expressed in a graphical representation, which shows all major ideas and their interrelationships. For an introduction on concept mapping see Trochim (1989).

Concept mapping in focus groups consists of five steps: (1) preparation and *developing the focus*, (2) *statement generation* by the group, (3) *statement structuring* and *rating* by the group, (4) statistical analysis and *statement representation* as a cluster tree and concept map, and (5) *interpretation* of the results by the group.

Step 1 or the preparation phase should result in two separate products: the primary focus or domain of interest for the brainstorming session with the focus group, and the rating scale needed for the structuring of statements in step 3. We decided on the following focus for the brainstorming session: "What is effective to obtain cooperation in a telephone survey: What can YOU do as an interviewer, Which tactics work, What can we as Bureau do to help you". The rating focus concerned the effectiveness of the tactics, and was stated as follows: "For each tactic mentioned, give a rating of its effectiveness. Use the following response categories:

- **- 1**   This tactic could backfire
- **0**   This tactic probably has no effect
- **+ 1**   This tactic works a little
- **+ 2**   This tactic works well
- **+ 3**   This tactic works very well
- **+ 4**   This tactic works almost always"

Step 2 or statement generation. During a one hour brainstorming session statements were generated with the members of the focus group. The focus statement described above constituted the prompt for the brainstorming. An informal introduction stated "you are all very experienced interviewers, what would you advice a novice to reach high response rates, what is the golden tip". This was added to compensate for the rather abstract formulation of the focus and to emphasize the practical applicability of tactics and strategies we wanted to elicit.

The usual rules for brainstorming applied, such as, encourage lots of statements, and emphasize the importance of no criticism or discussion during the generation of statements. The statements were recorded on a whiteboard by the moderator. The wording was checked with the group members, and if necessary the text was adjusted. The final text was entered into a laptop computer by one of the team members, who was seated behind a one-way mirror. Participants knew that this was happening and the moderator openly addressed the 'recorder' at certain moments to make sure that the statements were entered correctly.

In step 3, structuring, the individual participants were instructed to sort cards on which the statements were printed into different piles ' the way it makes sense to you'. Restrictions were: each statement can only be placed in one pile, all statements may not be put in one large single pile, and all statements may not be put into a pile of one, although a small number of piles of one statement are allowed. After this card sort the individual participants were asked to rate the statements as to effectiveness, using the six-point rating scale described above.

Step 4 is the analysis or 'statement representation' phase. The individual sorts were combined into a group similarity matrix. This similarity matrix is the input for a multidimensional scaling procedure and cluster analysis. The two-dimensional plot of points created by the MDS may be viewed as a representation of the 'emerging concepts' of group knowledge, hence the name concept mapping. The cluster solution is superimposed on the map of points to facilitate interpretation by the group members. Furthermore, the mean group ratings for each statement are computed. It is possible to overlay the ratings onto the concept map.

Step 5 is again a group activity. The participants discussed possible meanings and acceptable names for each cluster of statements. This last step attempts to identify relations between tactics in the form of a group-approved map.

3   Results

3.1   Generated statements

The brainstorming resulted in 37 different statements. Each statement was thought to be an effective tactic by at least one group member. Each statement was individually rated on effectivity to gain cooperation. Table 1 lists the statements in order of perceived effectiveness.

Table 1:   Most effective interviewer tactics

Given is average group rating (scale:-1,0,1,2,3,4), text of generated statement and number of order in which statements were generated.

3.23	use practical arguments why survey is important (23)
3.15	quiet work environment (better attention, faster reaction) (34)
3.15	if hesitant because of privacy indicate such questions may be skipped (37)
3.08	voice friendly and with much intonation (16)
3.08	good ergonomic work environment to stay attentive and enthusiastic (35)
3.00	be convincing (19)
3.00	more good background information about CBS[1] (14)
3.00	know the topic of the study well (13)
3.00	tell how much time is needed for interview (5)
2.92	advance letter should give more and better information (31)
2.85	use simple concepts in introduction that are close to the language of the respondent (15)
2.85	CBS should inform the public what they do with the data (30)
2.69	react to respondent (11)
2.69	project enthusiasm (18)
2.69	show understanding (2)
2.62	assure resp. that it is no trouble to call back later (3)
2.62	use information from background based on initial reaction respondent and experience (22)
2.54	react to the type of person that is on the phone (10)
2.54	react/use what respondents say (1)

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[1]   CBS is the abbreviation of Central Bureau voor de Statistiek (Statistics Netherlands)

2.54	in a short interview, mentioning the duration, prevents the need to make appointments (they answer directly) (6)
2.46	figure out who (what kind of person) you are talking to (e.g., elderly) (9)
2.46	it ONLY takes five minutes (way you stress the short duration) (7)
2.33	have toll-free telephone number available for information (32)
2.33	specific questions stimulate break off (e.g., date of birth, age is easier, less official/threatening) (36)
2.31	reassure, remove concerns about government and misuse of information (big brother) (28)
2.23	the words you use in the introduction are especially important (choosing the right words, e.g, 'ONLY a few questions') (8)
2.23	make clear that you too believe in the study (21)
2.23	CBS should be better known by public (29)
2.23	if they did not receive advance letter, start with giving them information yourself, reassure that letter was only a short announcement (33)
2.15	reassure you are NOT selling, remove concern about commercial interest (27)
2.00	give everyone the feeling they are the first and very special (17)
2.00	offer opportunity for 'time-out' (step back) (4)
1.85	keep the conversation going with open questions (12)
1.85	communicate from person to person (25)
1.85	'may I start asking the questions' works better than 'do you want to answer the questions' (24)
1.38	if respondent is reluctant draw them out with specific remarks (that is exactly what we are interested in, would be a pity if person like you..) (26)
1.18	response depends also on interviewers mood (20)

When we look at Table 1, we should remember that interviewers were asked to mention successful tactics to gain cooperation. Every statement is therefore successful in the opinion of at least one experienced interviewer. This does not mean that everybody completely agrees on every statement, there is some variance among the interviewers. When we look at the total range of the effectiveness ratings and the standard deviation, we notice that experienced interviewers strongly disagree on certain statements. Prime examples are statement number 20 ('influence own mood'), and number 36 ('question stimulates break-off').

On the other hand, there were tactics that every interviewer rated as either works well or works very well. Examples are statement number 5 (inform about time needed), number 13 (know the topic of the study well), 16 (voice), and 34 (work environment/concentration).

3.2   Interrelationship of statements

Analyses based on the similarity matrix of sortings resulted in ten clusters. These clusters were discussed and named by the group. Table 2 lists the statements grouped by named cluster; for each cluster the average cluster rating on effectiveness is given in parentheses. The clusters are ordered in descending effectiveness.

Table 2:   Statements grouped by cluster

Cluster names and average effectiveness ratings based on interviewers opinion. Most effective clusters are named first.

Cluster 9: *Work environment (3.12)*
   34   quiet work environment (thus better attention, faster reaction)
   35   good ergonomic work environment to stay attentive and enthusiastic

Cluster 6: *Persuasion (2.95)*
   23   use practical arguments why survey is important
   13   know the topic of the study well
   22   use arguments from background information based on initial reaction

Cluster 5: *Audibly positive (2.75)*
   19   be convincing
   16   voice friendly and with intonation
   18   project enthusiasm
   21   make clear that you too believe in the study

Cluster 4: *Time (2.67)*
    6   in a short interview mentioning the duration prevents need for appointments
    5   tell how much time is needed for interview
    7   stress that it takes ONLY a few minutes

Cluster 7: *Public relations (2.67)*
   14   more and better background information from CBS
   31   advance letter should give more information
   30   CBS should inform public what they do with the data
   32   have toll-free telephone number available for information
   29   CBS should be better known by public

Cluster 3: *adapt language (2.59)*

15	use simple concepts in introduction
2	show understanding
8	using the right words is especially important in the introduction

Cluster 8: *Legitimacy (2.54)*

37	if hesitant because of privacy indicate such questions may be skipped
28	remove concerns about government or misuse of information (big brother)
27	remove concerns about commercial interests (no selling)

Cluster 10: *(2.33)*

| 36 | specific questions stimulate break-off |

Cluster 1: *Keep interaction going (2.11)*

11	react to respondents
1	react to what respondents say
10	react to the type of person that is on the telephone
9	figure out what kind of person you are talking to
33	if they did not receive the advance letter, start with giving general information
12	keep the conversation going with open questions
26	is respondent is reluctant draw them out with specific remarks
20	the response depends also on the interviewers mood

Cluster 2: *Establish a relationship (2.06)*

3.	assure respondents that it is no trouble to call back later
4.	offer opportunity for 'time-out' (step back)
17.	give everyone the feeling they are the first and very special
24.	'may I start asking the questions' works better than 'do you want to answer the questions'
25.	communicate from person to person (avoid feeling of institute/agency calling respondent, give feeling of person (interviewer) communicating with respondent

If we concentrate on the most effective clusters, we see that besides a good work-environment, the use of adequate arguments in reaction to the respondent and the emphasis on using voice characteristics are seen as the most effective strategies. Also, when applicable, the short time needed to complete the interview was emphasized. The interviewers are well aware of the advantages and disadvantages of the telephone as 'medium' and try to use this medium as effectively as possible. They recognize the need to concentrate on what the respondent says and react to it. The emphasis on an ergonomic work environment probably also reflects the 'sub-optimal' telephone facilities at the time of our data collection. There are now new and pleasant facilities for telephone interviewing. Nevertheless, ergonomics

remains very important, a happy interviewer is more motivated and projects a positive image. Also, in order to 'tailor' the introduction, an interviewer should be able to concentrate on the respondent. Ergonomic adaptation to the work-floor, such as noise absorbing isolation, good chairs, etc, will help interviewers in achieving a good performance.

4   Summary and discussion

We identified ten clusters of response improving techniques. Some clusters (i.e., cluster 4, 5, 8, and 9) were typical for telephone interviews. Cluster 4 (time) exploits the advantage of telephone interviews; arguments emphasizing the short duration are used to persuade reluctant sampling units. Clusters 5, 8, and 9 all center round the limited channel capacity of telephone interviews.

Cluster 5 (audibly positive) stresses the extra effort telephone interviewers have to make to compensate for the absence of the visual channel of communication. They cannot use smiles or gestures, they have to **sound** enthusiastic and convincing. What is interesting to note is that face-to-face interviewers when asked by Snijkers et al (1996) named a cluster of strategies that was also focussing on the projection of a positive image, with statements such as be likeable, friendly, project enthusiasm, etc. This also relates to the 'social skill' mentioned by Morton-Williams (1993) as necessary for successful interviewers. The same concepts are used by both face-to-face and telephone interviewers in their introduction. They only differ in the way they implement the resulting strategies, with telephone interviewers of necessity strongly focussing on the voice as sole means of communication. Although a completely different research method was used, these results partly replicate and underscore the importance of the findings of Oksenberg and Cannell (1988), who pioneered research into the effect of voice characteristics on nonresponse.

Cluster 8 (legitimacy) centers around the special problems telephone interviewers have to establish that they are conducting a legitimate survey, that they are not selling anything, and that individual information will not be misused. In face-to-face surveys interviewers have more means to establish legitimacy and do use those. They show or hand-over their official ID, have copies of introductory letters or leaflets to show and can project by nonverbal means a non-threatening and reassuring image (cf. Morton-Williams 1993, chap 7).

Connected with the need to establish legitimacy is the emphasis on good public relations of the agency. Although a good P.R. was also mentioned by the face-to-face interviewers investigated by Snijkers et al, the telephone interviewers in this study not only rate P.R. in general as more effective and helpful, they also name more P.R.-related strategies. A main concern of the telephone interviewers was a well-known and positive image of the agency, in

combination with informative (advance) letters and a widely advertised toll-free telephone number for information.

Cluster 9 (work environment) is typical for the telephone situation and highlights the importance of an ergonomical work environment with a low noise level. In order to adequately react to respondents and tailor their arguments, interviewers have to concentrate on slight changes in the tone of voice of respondents, and pick up general para-linguistic signals. In cluttered and noisy surroundings a good auditive communication of interviewer and respondent is jeopardized, and unnecessary break-offs or refusals may result.

In face-to-face interviews the importance of 'tailoring' and 'maintaining interaction' are emphasized (Morton-Williams 1993; Groves et al. 1992). Snijkers et al. (1996) replicated their findings for Dutch interviewers, using a different research method. The interviewers investigated were not specially trained in doorstep techniques. The same is true for the experienced telephone interviewers in this study. However, also these telephone interviewers named strategies for tailoring and maintaining interaction in the clusters 3 (adapt language), cluster 6 (persuasion), and cluster 1 (keep interaction going). The main difference between the telephone and the face-to-face interviewers is that the telephone interviewers not explicitly mentioned the strategy to offer to call (come) back, when time-problems were mentioned by the respondents. Afterwards, we explicitly asked our telephone interviewers why they had not referred to this strategy. Their main reaction was surprise and they told us that offering to call-back and making appointments are basic strategies. It is mentioned as one of the first things in their training, and every interviewer knows this. During this debriefing session the interviewers again stated that mentioning the short duration (cluster 4) often prevents the need to make appointments. They stressed that this only works with really short interviews and that they often start with offering a call back, but mention in the same breath that it will only take.

This study replicates the effectiveness of important theoretical concepts about nonresponse reduction: tailoring and maintaining interaction (cf. Campanelli et al. 1997; Groves et al. 1992; Groves and Couper 1994; Morton-Williams 1993; Snijkers et al. 1996). This is now replicated across countries (USA, UK and Holland), across research methods (interaction coding, focus groups, interviewer questionnaires and concept mapping), and across interview modes (face-to-face and telephone), which gives rise to great trust in the utility of 'tailoring'. Professional competence, tailoring of introduction, and maintaining the interaction are key concepts for a successful doorstep approach in surveys AND for a telephone survey introduction.

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