SHORT COMMUNICATION

Preliminary observations on the telephone survey as a research tool in New Providence

William J. Fielding & Denise Samuels
Research Unit, Moss Road, College of The Bahamas, Oakes Field, Nassau

ABSTRACT

This paper describes our experiences from using the telephone survey as a research tool in New Providence. Gender specific surveys may be complicated by the fact that females are more likely to answer the telephone than males. Respondents often seem suspicious of telephone callers, and so might be uncooperative. The large proportion of telephone lines "not in service" means that many numbers are dialled unsuccessfully. Variation between exchanges in the proportion of completed calls could result in uneven survey coverage of the island. This variability appears to be related to socio-economic factors that could bias survey results.

INTRODUCTION

Surveys are a common means of collecting information in many types of investigation. In The Bahamas participants have been selected by convenience samples (Fielding & Mather, 2000), cluster sampling (The College of The Bahamas, Research Unit, 2000), and postal surveys (Samuels, 2001). Fielding and Mather (2000) managed to obtain a sample with similar gender and economic characteristics as the general population in New Providence, but this does not guarantee that future convenience samples would be representative. Postal surveys in The Bahamas have been found to result in low response rates (about 20%) and long response times.

In countries where most households have telephones, market research companies carry out household surveys by telephone. This survey method is relatively cheap, compared with face-to-face interviews, and an immediate response is obtained, compared with postal surveys. The characteristics of

https://doi.org/10.15362/ijbs.v11i0.41

the telephone survey have been described, by among others, Zikmund (1994, p. 242). For the method to be useful to the researcher, respondents must be willing to communicate information to an unknown person. Even in countries where the technique is often used, the telephone survey can produce resentment from those called. Finney (2001), himself a statistician, provides an extreme response.

The method is usually expected to capture a cross-section of the target population so that the results can be considered "representative" in some sense. This requires those contacted to be "representative" of the population under investigation. In The Bahamas, not all residential telephone subscribers are listed in the telephone directory ("ex-directory" numbers). This requires the use of randomly selected four or three digit numbers for each telephone exchange to ensure that ex-directory numbers might be included in the study (Batelco, undated). However, the use of randomly generated numbers will result in unassigned numbers, as well as business numbers, being dialled. Some households have more than one telephone number so it is possible to contact the same household more than once, although this should be rare. Some telephone lines are connected to dedicated facsimile machines, which would also reduce the number of completed calls.

The purpose of this paper is to report the findings associated with a telephone survey in New Providence in order to provide some preliminary information about its applicability in the Bahamian context.

METHOD

A study was being undertaken to obtain the attitudes of dog owners to sterilizing their pet dogs (Fielding, Samuels & Mather, 2001). A short questionnaire was used which required no more than 20 answers. Typically the questionnaire, based on a study by Blackshaw and Day (1994), could be completed within a few minutes. The information related to a mixture of facts (e.g.: How many dogs do you own?) and attitudes (e.g.: Did the respondent "agree", "disagree", "do not know" with "I think of my dog in human terms").

Residential telephone numbers were selected in a systematic fashion from the 2001 Bahamas telephone directory. Apart from a few exceptions, each functioning number was contacted several times with the objective of speaking to the dog owner. Messages were not left on answering machines, but repeat calls were made to these numbers. Repeat calls were not made when facsimile tones were heard. When the dog owner was out, permission was sought from the respondent for a follow-up call to be made. Most calls were made in the evenings or at weekends.

The initial interview technique explained the purpose of the study and asked respondents if they had dogs, if they did so, their permission was sought to ask the survey questions. Data on the exchange, ability to contact a resident, the gender of the first person answering the call, and willingness to co-operate were recorded.

RESULTS

Overall, the study dialled 352 numbers and obtained information on dogs from 21% of them; however, we recorded detailed information only on 292

Table 1: A summary of the telephone numbers called, by exchange, together with the result of the calls, and the gender of the first adult responding (percentages within each exchange area).

Exchange	Area	Number of calls	% females responding§	% uncooperative§	% "Not in ¶ service"	% no answer¶
324	Camperdown	30	80	5	3	30
364	Camperdown	19	80	0	26	21
361	Carmichael	21	85	18	10	38
322	Central Nassau	15	67	38	20	20
323	Central Nassau	22	56	29	36	23
325	Central Nassau	39	67	9	10	26
326	Central Nassau	19	80	11	26	21
328	Central Nassau	8	71	0	13	0
356	Central Nassau	14	60	38	14	14
362	Coral Harbour & Lyford Cay	15	91	0	0	27
327	Delaporte	11	86	20	18	18
363	Paradise Island	3	0	0	0	100
392	Pinewood Gardens	21	64	0	19	14
393	Soldier Road	29	67	8	7	10
394	Soldier Road	11	67	0	64	9
341	South Central	13	73	20	8	8
	OVERALL	**292**	**72.5**	**11.2**	**16.1**	**21.2**

Note: § Percentage of completed calls.
¶ Percentage of dialled calls
Location refers to the location of the exchange (Batelco, n.d.).

cases. A summary of these calls is tabulated in Table 1. Sixty-two percent of all calls (292) resulted in contacting an adult and 51% of all those contacted were considered co-operative (irrespective as to whether or not they could contribute to the dog study).

Respondents

The majority of respondents (the first adult answering the call) were females (73% of 182 respondents). In several cases where the study required information from a male owner, this was never obtained, as he could not be contacted, even after repeat callbacks. Some females could give no indication as to when the required male respondent would be at home.

Several people were concerned as to how their number had been obtained. Other respondents seemed unfamiliar with the concept of being asked information by telephone. Overall, we did not feel that older rather than younger people were less reluctant to answer questions. However, older people with hearing difficulties proved hard to interview; one man gave his interviewer a lecture on to how to speak into the telephone!

A difference in the level of cooperation from household members was noted; so depending upon who answered the call, the household might be considered co-operative or not. In one case, a younger, adult woman was content to answer the questions, but when an older woman wanted to know the nature of the call, she was heard to admonish the respondent "You cannot go giving information out to strangers."

Non-co-operation

From Table 1, it can be seen that many listed numbers were "not in service" (16% of 292 calls) and that about 10% of respondents (of 182 completed calls) simply refused to co-operate at all; e.g. potentially useful data could not be collected. Reasons for not cooperating included "I think you have the

wrong number", "these questions are not relevant to your study", while some people simply got cold feet and terminated the interview by hanging-up. We also felt that some people said that they had no dogs, simply to end the conversation and so avoid disclosing any information.

Interview technique/question phrasing
The initial interview technique (described in the previous section) was modified during the survey. Instead of asking if the respondent had dogs, we assumed that the respondent owned dogs ("May I ask you some questions about your dogs?") and so forced a more definite response ("We have no dogs"). This change was adopted to discourage respondents from lying to the previously used question "I wondered if you might be a dog owner?" A more direct approach was sometimes needed with phrasing, as it was apparent that some respondents could not envisage neutral statements over the telephone. Therefore statements such as: "The thought of fixing my dog upsets me" became "Does the thought of fixing your dog upset you?" The order of the questions was also varied according to the response of the individual being interviewed. Some respondents were very helpful and chatty, while others clearly considered the call intrusive, even though they answered the questions.

Some respondents considered the telephone call as a personal conversation between the caller and themselves. Thus, when asked a question such as "Can I ask you some questions about your pet dogs?" respondents would say that they did not own any dogs, but when asked a follow-up question "Does anyone own dogs in your household?" a positive answer was obtained. This response is important when the use of products, which may be specific to individuals rather than households, is being assessed. It also demands alertness and tactful probing on the part of the interviewer to ensure that the appropriate respondent within the household is interviewed.

Discussion

Our experiences obtained from this telephone study have been reported in order to inform other researchers who might be considering using this research tool. It should be noted that we had not intended to describe the use of the telephone survey when then our study commenced, hence the incidental nature of our observations. Clearly, a more formal study of the telephone survey as research tool would benefit from more detailed demographic data of respondents and allow our impressions to be verified.

We understand that relatively few telephone surveys are carried out on the general public and so the notion of informing a stranger about facts and opinions is relatively novel. Therefore, we were concerned about the quality of the answers and of the survey process. It is clear that some people are unwilling to talk to a "stranger" on the telephone, and so almost any question can appear threatening. The ability of the respondents to participate in a telephone study requires them to concentrate and understand the questions. We would suggest that short, direct questions be posed in a telephone interview rather than obtaining reactions to statements.

Our overall success rate was less than that obtained with pet related telephone studies in North America. Patronek, Beck and Glickman (1997) reported a telephone survey of households that gave a success rate of 75.3 %.

Manning and Rowan (1992) reported a telephone survey with a success rate of only 21% when no screening was made of business telephone numbers. Blankenship, Breen & Dutka (1998; p.125) suggest that an 80% success rate should be possible, given sufficient redials .

The overall percentage of "not-in-service" numbers and the percentage of unanswered numbers were in keeping with that reported elsewhere (Churchill, 1996; p. 291 & p.293). However, these percentages vary between exchanges. Table 1 also indicates that the level of non-co-operation varies from exchange to exchange, and so depending upon the socio-economic attributes associated with households within an exchange, the results could be subject to bias. For example: we gained the impression that non-Bahamians were more comfortable with this research technique than Bahamians. This feeling is strengthened by the observation that exchanges associated with predominantly non-Bahamian communities (e.g.: Lyford Cay) resulted in the lowest percentage of uncooperative calls (Table 1). This bias might be compounded by the variability in the proportion of numbers not in service at different exchanges. If telephone lines have been disconnected due to non-payment of bills, then biased survey data can result. For example: the Camperdown and Lyford Cay exchanges (which we regard as being in wealthier areas) had fewer numbers "not in service" (Table 1). A more extensive study is required to ascertain if the variability between exchanges is merely random or systematic.

Our interviews gave us the impression that men were less likely to give reliable responses than women (probably because men, more than women, think that they have to have something to hide concerning the topic being studied). As it is easier to refuse to be co-operative on the telephone than in a face-to-face interview, we feel that the very people whom the survey might aim to include could be missed. This idea is enhanced by the fact that face-to-face street interviews have indicated that close to 40% of households have dogs (Fielding & Mather, 2001). If those who refused to co-operate owned dogs, then the number of dog owning households would be closer to the previously reported figure.

The fact that a disproportionate number of females answered the phone first means that interviewee selection must try to overcome this bias. Vanderpool (2002) indicated that random selection of respondent failed to overcome this bias, and this may be due to the difficulty in making contact with males.

When the same questions about the dogs were asked in face-to-face interviews, it was observed that some respondents liked to read the questions themselves. In addition, it is possible for an interviewer to respond to the body language of the respondent and to act accordingly. These options are not available in a telephone survey, and so one is less able to ensure that the respondent has understood the questions. This poses the additional burden on interviewers to be sensitive to the interviewee's responses and inflexions in order to assess how best to conduct the interview so that reliable data are collected.

The telephone survey is considered to be a cheap data gathering method, however, this may not always be so. In studies where any household mem-

ber can provide the information the technique may be considered a useful option. When seeking responses from individuals with specific characteristics, the method can result in many wasted calls and so might be more time consuming than anticipated. This problem is exacerbated by telephone numbers that are "not in service" and those, which, even after repeated dialling, elicit no response. Although the use of random digit dialling will capture numbers not in the telephone directory, many non-residential numbers will be dialled. This will result in wasted effort, and will require calls to be made both inside and outside office hours so that one can distinguish between non-responding businesses and households.

The apparent unfamiliarity of the public with telephone surveys poses a circular problem for researchers. Until the public is exposed to telephone studies respondents will continue to feel uncomfortable with this survey method. While researchers feel that telephone surveys cannot provide them with the information they require, they will be unwilling to collect data via telephone. The only suggestion that we can offer to break this cycle is that the public should be advised via the media that a telephone study will be carried out and that their cooperation is requested.

Although this incidental study has bought some aspects of using the telephone survey as a research tool in New Providence to our attention, there is much to be gained by a formal investigation into characteristics of respondents and the implications these have for reaching the desired target population. It is clear that a sampling strategy needs to be devised which will include a larger proportion of male respondents, yet at the same time, ensuring that other characteristics of the sample remain intact.

---

1 Two postal surveys made by The Research Unit in 2001 resulted in response rates of 20% and 22%, and replies came in up to four months after the forms were sent out.

2 In a telephone poll carried out on the referendum in 2002, random digit dialling resulted in 77% of the numbers being discarded (Vanderpool, 2002)

3 The only other telephone poll about which we know is that described by Vanderpool (2002), which was informed by this study.

4 With up to six redials, 17% of selected participants could not be contacted in one poll (Vanderpool, 2002).

5 This is because men, rather than women, are involved in dog breeding (Fielding, Samuels and Mather, 2001), probably as a supplementary source of income.

References

Batelco. (n.d.). Bahamas code routing guide. Nassau: Bahamas Telecommunications Company.

Batelco. (2001). The Bahamas telephone directory. Nassau: Bahamas Telecommunications Company.

Blackshaw, J. K. & Day, C. (1994). Attitudes of dog owners to neutering pets: demographic data and effects of owner attitudes. Australian Veterinary Journal, 71 (4), 113-116.

Blankenship, A. B., Breen, G. E. & Dutka, A. (1998). State of the art marketing research. (2nd ed.). Chicago, IL: NTC/Contemporary Publishing Group.

Churchill, G. A. (1996). Basic marketing research. (3rd ed.). Orlando, FL: Dryden Press.

The College of The Bahamas, Research Unit. (2000). PAHO nutrition research. Unpublished manuscript.

Fielding, W. J. & Mather, J. (2000). Stray dogs in an island community: A case study from New Providence, The Bahamas. Journal of Applied Animal Welfare Science, 3 (4), 305-319.

Fielding, W. J. & Mather, J. (2001). Dog ownership in the West Indies: A case study from The Bahamas. Anthrozoös, 14 (2), 72-80.

Fielding, W. J., Samuels, D., & Mather, J. (2001). Attitudes and actions of West Indian dog owners towards sterilisation: A gender issue? Manuscript submitted for publication.

Finney, D. J. (2001). Should information be free? RSS News, 28 (9), 5.

Manning, A. M., & Rowan, A. N. (1992). Companion animal demographics and sterilisation status: Results from a survey in four Massachusetts towns. Anthrozoös, 5,192-201.

Patronek, G. J., Beck, A. M., & Glickman, L. T. (1997). Dynamics of dog and cat populations in a community. Journal of the American Veterinary Medical Association, 5, 637-642.

Samuels, D. (2001). Survey of science and technology indicators. Unpublished manuscript, Economic Commission for Latin America and the Caribbean, Port of Spain, Trinidad and Tobago.

Vanderpool, J. (2002, April). Reflections on public opinion polling in The Bahamas: Academic and research perspectives. Paper presented at the Research Edge, The College of The Bahamas, Nassau, Bahamas.

Zikmund, W. G. (1994). Exploring marketing research. (5th ed.). Fort Worth TX: Dryden Press.

William Fielding has been studying the dog population in New Providence since 1998. He has provided reports on dog populations for the Department of Agriculture, Nassau, Bahamas and Humane Society International, Washington, D.C., as well as writing research papers and giving presentations, both nationally and internationally, about these studies. He is currently a researcher at The College of The Bahamas.

Denise Samuels is a senior research assistant at the Research Unit of The College of The Bahamas. Formerly, she was employed as Assistant Co-operative Officer, Department of Co-operatives, Ministry of Agriculture and Fisheries. She holds an M.P.A. degree from Georgia State University and a B.A. degree from Barry University, Miami Shores, Florida.