# THE USE OF THE TELEPHONE INTERVIEW IN OBTAINING INFORMATION OF A SENSITIVE NATURE: A COMPARATIVE STUDY

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More and more researchers are turning to the telephone as a means of gathering information. Often, it is more economical, quicker, and easier to administer than the personal interview or the mail questionnaire. However, researchers are often worried about using the telephone for gathering data of a complex and/or sensitive nature.

Few studies have been conducted comparing the telephone interview with other methods of gathering data. Rogers (4) found the telephone equally as effective as the personal interview in obtaining complex attitudinal data. Wiseman (6) compared the telephone with the mail questionnaire and personal interview, and found that the responses to these three methods were quite similar except for two sensitive issues. The mail questionnaire elicited more socially undesirable responses than the telephone and personal interview for the questions dealing with legalizing abortion and making birth control information readily available to unmarried people.

Hochstim (2), on the other hand, found no major significant differences in the quality of responses among the three methods in the gathering of health data. However, some minor differences were found: 1) More women admitted to discussing their intimate problems with their husbands in the mail strategy than in the other two strategies. 2) More women admitted to drinking alcoholic beverages in their responses to the mail questionnaire and telephone interview strategies than in the personal interview strategy. Locander, et al (3) compared four data collection methods-- personal interview, telephone, self-administered questionnaire, and random response-- and achieved the highest rate of response via the telephone. However, none of the data collection methods tested was found superior regarding the actual responses to threatening questions involving such areas as drunken driving and bankruptcy.

Colombotos (1), in a survey of physicians, found that the telephone interview method elicited fewer socially acceptable responses than did the face-to-face method of gathering data. Thus, research to date, taken collectively, seems to indicate little agreement as to the effectiveness of the telephone in gathering sensitive and/or complex information.

The purpose of the current study was to determine whether the responses would differ, using three methods of gathering data, on topics that are relatively complex and ego-involving. White subjects in predominantly white neighborhoods were polled regarding their attitudes towards Blacks, using three data collection methods: 1) anonymous mail questionnaire, 2) personally-delivered, self-administered, anonymous questionnaire, and 3) telephone interview.

## METHOD

Subjects for the three data collection techniques were systematically sampled from the current telephone directories of two suburban areas in the greater New York Metropolitan area. According to latest census figures, these areas are almost exclusively white.

Six hundred subjects received the mail questionnaires. In the cover letter, the sponsor of the survey identified himself as a student doing research regarding the public's attitudes toward various ethnic groups.

The questionnaire consisted of the Warner & DeFleur (5) Attitudes Toward Negroes Scale. This scale is composed of sixteen statements about Blacks, such as "Negroes seem to learn a little slower than whites," and "I would be willing to have a Negro as my supervisor in my place of work." Each item was scored on a five-point Likert scale going from strongly agree to strongly disagree. Total scores ranged from 16 (a "perfect" bigot) to 80 (a "perfect" non-bigot). According to Warner and DeFleur, this scale has a split-half reliability coefficient of $r=.84$. The coefficient was .97 after the application of a correction factor, the Spearman-Brown Prophesy Formula. For the current study, the corrected split-half reliability coefficient was .91.

The same questionnaire was personally delivered to 74 subjects who were requested to express their "honest opinions" to the 16-item attitude scale. To ensure confidentiality, and to minimize bias due to socially acceptable responses, subjects were instructed to fill out the questionnaire in private, enclose the completed questionnaire in an envelope provided by the interviewer, and to personally seal the envelope before returning it to the interviewer. Fifty-nine subjects agreed to participate in the study.

In the telephone phase of the study, as in the personally-delivered, self-administered questionnaire phase, the telephone interviewers introduced them-

selves as students conducting a confidential, anonymous survey regarding people's attitudes towards various ethnic groups. A total of 47 subjects, out of 61 contacted, cooperated.

## RESULTS

After two weeks, the mail survey yielded a total of 179 returns, a response rate of 30%. This rate was felt to be explainable in terms of the sensitive nature of the survey and the fact that no follow-ups were sent.

Table 1
RESPONSE RATES AND MEAN SCORES FOR THE THREE GROUPS

| | Personally-delivered, Self-administered, Anonymous Questionnaire | Telephone Survey | Mail Survey |
|---|---|---|---|
| Response Rate | (59/74) 80% | (47/61) 77% | (179/600) 30% |
| Mean Attitude Score | 56.81 | 57.55 | 64.93 |
| Standard Deviation | 12.07 | 9.50 | 10.37 |

The first part of Table 1 shows the rate of response for the mail questionnaire compared to the other data collection methods studied. Both the personally delivered, self-administered questionnaire and the telephone interview yielded similar rates of response, which were both found, via chi-square tests, to be significantly higher than that of the mail questionnaire. The chi-square values were 72.5 and 54.1 respectively, with one degree of freedom ($p<.001$).

Table 2
ONE-WAY ANALYSIS OF VARIANCE FOR THE ATTITUDE SCORES

| Source | Sum of Squares | d.f. | Mean Square | F-ratio |
|---|---|---|---|---|
| Among groups | 4,050.10 | 2 | 2,025.05 | 17.99* |
| Within groups | 31,798.32 | 282 | 112.58 | |
| Total | 35,798.32 | 284 | | |

*$p<.001$

The current study demonstrated that for a sensitive, ego-involving issue such as Caucasions' attitudes towards Blacks, there was no significant difference in the mean attitude scores between the personally-delivered, self-administered questionnaire and the telephone interview (Table 1). However, the significant difference in the ANOVA (Table 2) clearly points to the difference between the responses given in the mail questionnaire and the other two data collection methods. A Scheffe's contrast indicated that the mean attitude score for the group responding to the mail questionnaire was significantly different from those of subjects responding to either the telephone interview or the personally-delivered, self-administered questionnaire. The mean scores for the latter two groups were statistically equivalent.

## DISCUSSION AND CONCLUSION

The findings of the current study lend support to previous research (3,6) indicating the reliability of telephone interviews in gathering data of a complex and sensitive nature. The telephone method yielded responses similar to the personally-delivered, self-administered questionnaire. The latter is probably the most reliable method of obtaining information of a complex, embarrassing, ego-involving, or sensitive nature. It has the advantage of minimizing the bias of response arising from the tendency of subjects to give socially acceptable responses, a problem associated with personal interviews. Unfortunately, of the three methods,studied, it is the most expensive.

The anonymous mail survey yielded more liberal (unbigoted) attitudes than those obtained by the two other methods. This may be due to the relatively low response rate (30%) to the mail survey. This limitation makes it difficult to generalize about the results of the mail survey. The rather high score,(mean= 64.93) obtained from the mail survey, to the Attitudes Toward Negroes Scale may indicate that bigoted individuals chose not to respond to the survey. Thus, unless follow-ups and incentives are used to obtain higher rates of return, the mail questionnaire may not be the most reliable method for obtaining complex, personal, and ego-involving data.

The previously mentioned objection that subjects are more likely to refuse to divulge sensitive information over the telephone did not prove to be true in the current study. The mean attitude score obtained via the telephone was statistically similar to that of the personally-delivered, self-administered questionnaire. Thus, in conclusion, besides being relatively inexpensive, the telephone method may be relied upon to obtain data of a complex, embarrassing, personal, ego-involving, and sensitive nature.

## FOOTNOTE

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## REFERENCES

1. Colombotos, John, "The Effects of Personal vs. Telephone Interviews on Socially Acceptable Responses," Public Opinion Quarterly, 29 (Fall 1965), 457-458.

2. Hochstim, Joseph, "A Critical Comparison of Three Strategies of Collecting Data from Households," Journal of the American Statistical Association, 62 (September 1967), 976-989.

3. Locander, W., Sudman, S., and Bradburn, N., "An Investigation of Interview Method, Threat and Response Distortion," Journal of the American Statistical Association, 71 (June 1976), 269-275.

4. Rogers, Theresa F., "Interviews by Telephone and in Person: Quality of Responses and Field Performance," Public Opinion Quarterly, 40 (Spring 1976), 51-65.

5. Warner, L.G. and DeFleur, M.L., "Attitudes as an Interactional Concept: Social Constraint and Social Distance as Intervening Variables Between Attitudes and Actions," American Sociological Review, 34 (1969), 153-169.

6. Wiseman, Frederick, "Methodological Bias in Public Opinion Surveys," Public Opinion Quarterly, 36 (Spring 1972), 105-108.