

DOCUMENT RESUME

ED 287 879

TM 870 629

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 TITLE The Use of Mail Questionnaires as a Method of Data Collection.  
 PUB DATE Sep 87  
 NOTE 13p.  
 PUB TYPE Information Analyses (070)

EDRS PRICE MF01/PC01 Plus Postage.  
 DESCRIPTORS Data Collection; Questioning Techniques; \*Questionnaires; \*Research Methodology; Research Problems; Response Style (Tests); \*Surveys; Test Construction

IDENTIFIERS \*Mail Surveys; \*Response Rates (Questionnaires)

ABSTRACT

This brief review of research examines the mail questionnaire as a research tool. Major topics reported are the advantages and disadvantages of mail surveys response rates, and questionnaire construction. Among the advantages reported are ease of distribution and tabulation, the possibility of a large sample and geographic range, low cost, uniformity of questions, convenience of response, and reduction of bias. Among the disadvantages are impersonal feelings, possible low rate of response, inability to interact with respondents, and lack of assurance as to the actual respondent. Strategies for increasing response rate are identified. Personalized correspondence, pre-contact letters, special delivery mailing, and emphasis on benefit to the respondent tend to increase response rates. Design of the questionnaire, clarity of instructions, simplicity of response, and quality of cover letter are considered to be important. A pilot test of the questionnaire to detect possible problems is recommended. (MDE)

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The Use of Mail Questionnaires  
as a Method of Data Collection

by

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## INTRODUCTION

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For years mail questionnaires have endured as one of the most popular tools of educational research. In view of the many advantages they offer researchers, there are sound reasons why the use of questionnaires has continued to flourish as a method of data collection. However, attention must also be given to the deficiencies of mail surveys. In addition to the plusses and minusses of surveys other aspects of their use, such as questionnaire construction and cover letter design, must also be examined. The purpose of this paper is to present some of the considerations a researcher must face when utilizing a mail questionnaire.

## ADVANTAGES AND DISADVANTAGES

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The appeal of questionnaires may stem from the many advantages they present to the researcher when deciding upon a data collection method. Long and Cognition (1978) list several advantages of using a mail questionnaire including the relatively low cost, the possibility of reaching a large number of respondents, and the insurance that all respondents will receive exactly the same questions. Humphries (1983) includes the opportunity to cover a wide geographic area, the ability to communicate with hard to reach subjects, the possibility of a large sample size, and the low cost as being

good reasons to use a mail questionnaire. Moreover, Francis, Frey, and Harty (1979) also discuss the ability to cover a wide geographic area, cost effectiveness, and the insurance that all respondents will receive the same questions as advantages to using a mail survey. They go on to add that convenience of response, ease of tabulation, and reduction of bias, because there is less pressure on respondents of mail surveys than there is in an interview situation, are other advantages.

Although there may be many advantages to using a questionnaire as a tool for data collection, the researcher should also be aware of the shortcomings which may occur as a result of their use. Long and Cognition (1978) include the possibility of a low response rate, the inability to clarify questions, and the impersonal feeling many people receive from a mail questionnaire. Humphries (1983) also lists the possibility of a low response rate as a shortcoming of mail surveys. He also includes the possibility of the actual respondent not being the one for whom the questionnaire was intended, and that no item can be considered independent from other items because respondents can read all questions before answering as added drawbacks. Francis, Frey, and Harty (1979) discuss the chance of a low response rate as well as the possibility that answers to some items may be influenced by other items as being detriments to mail surveys.

## FACTORS AFFECTING RESPONSE RATES

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A common assumption, by many researchers, is that the greatest weakness in the use of a mailed questionnaire to gather data is the low rate of response (Berdie, 1975). A low response rate may occur if the researcher has ignored the fundamental considerations that have been proven to have an effect upon the return rate of a mailed questionnaire such as: personalizing correspondence, making pre-contacts, and the use of multiple follow-up contacts. Heberlein and Baumgartner (1978) state that, "The skilled researcher can successfully use the mailed questionnaire, but unlike the interview, which has the power of a face-to-face personal contact to stimulate response, the mailed questionnaire must rely on other techniques to assure response."

A procedure that has been shown to increase the response rate of mail questionnaires is the personalizing of each correspondence. Throughout the literature findings indicate that the more "personalized" a survey appears to a potential respondent the more likely he or she is to return it. In one study, Champion and Sear (1969) found that a higher response rate occurred as a result of using a common postage stamp as contrasted to machine printed postage permits. Similar results occurred in a study by Robin (1965) in which he states, "Research on this has shown that this is most effective, if slightly more expensive, when an actual stamp rather than a postal permit or a metered stamp is used."

Carpenter (1975) conducted a study in which he compared the response rate of three groups of respondents. Each group received questionnaires which differed only in the degree to which they were personalized. He found the return rate of the group receiving the questionnaires which were the most personalized to be significantly higher than that of the group whose questionnaires were the least personalized. In another study (Linsky, 1975) it was found that personalizing contacts in mail surveys by addressing the respondents by name and hand signing letters increased the response rate.

The use of a pre-contact letter has also been shown to have a significant effect on the response rate of mail surveys. Linsky (1975) suggests that the use of pre-contacts which identify the researcher, explain the purpose of the study, and request an individual's participation will increase the rate of response. As part of his procedure, Robin (1965) sent a pre-contact letter to potential participants. The letter explained the overall study, its importance, and possible applications. The letter also informed the respondents that they would be receiving a questionnaire shortly. In 10 independent samples he found his procedure to produce response rates ranging from 66% to 95%.

A third technique that has produced significant results by increasing response rates is multiple follow-up contacts. Linsky (1975) states that, "Follow-up letters or postcards sent to individuals who initially fail to respond almost

invariably result in additional responses." The literature suggests that contacts may either be made by mail or by phone. Heberlein and Baumgartner (1978) recommend that three contacts with the third being by phone are optimum. In another study (Robin, 1965) a minimum of two and a maximum of five contacts, all by mail are recommended. Also, follow-up contacts via mail do not appear to have to be in the form of a letter. Sletto (1940) and Linsky (1975) both found postcards to be as effective as letters in stimulating response from initial non-respondents.

Two other procedures having a significant effect on the rate of response which a mail survey produces are the type of postage used, and the style of cover letter which accompanies the questionnaire. In their study, Champion and Sear (1969) used two types of cover letters. The first group received an egoistic type of letter which emphasized the benefit the study would have to the respondent. The second group received an altruistic style letter which highlighted the individual's response as benefiting the researchers. They found that a significantly higher number of those receiving the egoistic style letter returned the questionnaire than did those receiving the altruistic type cover letters. In the same study (Champion and Sear, 1969) it was also found that a significantly greater number of surveys were returned by respondents receiving them by special delivery postage as compared to respondents receiving them through regular mail. However, it should be noted that the costs for the special

delivery were considerably higher.

A factor that many researchers may assume to have a significant effect on the response rate of a mailed survey is the length of the questionnaire. It seems plausible that the longer the questionnaire the less likely a person would be to complete and return it. However, research pertaining to questionnaire length does not support this assumption. In one study (Sletto, 1940) potential respondents were sent questionnaires of 10, 25, and 35 pages in length. The results showed that the response rates for the 10 page, 25 page, and 35 page questionnaires were 68%, 60%, and 63% respectively. Berdie (1975) distributed questionnaires of one, two, and four pages in length to 108 university professors. Although his results did show a negative correlation, i.e. as the length of the questionnaire went up response rates went down, the results were not statistically significant. In another study (Champion and Sear, 1969) questionnaires of three, six, and nine pages in length were mailed. The results of this study showed that a significantly higher number of nine-page questionnaires were returned than were three-page questionnaires. Dillman and Christenson (1974), sent out questionnaires ranging in length from 85 to 165 items. Even with the large numbers of questions that constituted their surveys they experienced response rates of 70 to 75 percent.



## QUESTIONNAIRE CONSTRUCTION

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The construction of the questionnaire itself is another important consideration for the researcher. Long and Cognetta (1978) divide the questionnaire into five parts. The first part is the heading. The heading includes the title and a statement of the purpose of the questionnaire. Second is the procedural statements. The procedural statements are brief statements that introduce formats and items. Third are the actual items. Fourth is comment space, as some room should be left for the respondents to record unsolicited points of view or attitudes. The fifth part is the procedure for return. The procedure for return presents specific directions for returning the survey which should be as easy as possible for the respondents to follow. Lastly, the authors recommend that the questionnaire be pre-tested to detect any flaws before the actual mailing of it.

In his article, Humphries (1983) also addresses questionnaire construction and format. He suggests that the researcher be familiar with many different kinds of questions. The two question types Humphries describes are open-ended and closed-ended. Open-ended questions allow for respondents to answer freely and spontaneously as there are no choices for response as is the case with close-ended questions. He describes closed questions as being easier to answer, easier to tabulate, and lessening the chance of misinterpretation. Humphries also suggests that the

questionnaire should be kept from becoming too lengthy, the responses to closed questions should be arranged vertically under each item, and questions should be clearly stated and as specific as possible. Finally, he also recommends a pilot-test of the questionnaire.

Stacey and Moyer (1982) include in their suggestions for survey design the use of concise questions, the vertical arrangement of responses to closed questions, the avoidance of irrelevant items, and the use of a brief cover letter. As well, Spitzer (1979) also suggests that questions should be kept brief and that a well-written and concise cover letter be used. He also suggests the grouping of items into categories, the use of simple and direct language, and that the first few questions should be non-threatening and easily answered. Both articles, Stacey and Moyer (1982) and Spitzer (1979), also suggests a pre-test of the questionnaire to identify any problems that may exist in its design.

#### SUMMARY

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Several advantages to using a mail questionnaire have been discussed including: the low cost involved, the opportunity to cover a larger geographic area, the possibility of reaching a greater number of respondents, and the insurance that all respondents will receive exactly the same questions. Moreover, the opportunity to communicate with hard to reach subjects, convenience of response, ease of

tabulation, and reduction of bias are also positive aspects of mail surveys.

The disadvantages of utilizing a survey consist of: a possible low response rate, the inability to consider items independent from one another, the incapacity to clarify questions, the impersonal feeling that many people receive from mail questionnaires, and the possibility that the actual respondent may not be the one for whom a questionnaire was intended.

To boost response rates the researcher should consider personalizing each correspondence, using multiple follow-up contacts and sending a pre-contact letter to potential respondents. In addition, special delivery postage and the use of an egoistic style cover both seem to increase response rates to mail surveys. Moreover, the length of a questionnaire does not appear to have a significant effect on the rate of return.

Lastly, careful consideration should be given to all aspects of questionnaire design. It has been suggested that closed questions afford easier tabulation and response. However, open questions allow the respondent to answer more freely and imaginatively. The length and complexity of each item should be kept as reasonable as possible to allow for easier completion. An emphasis should also be placed on a carefully designed and well-written cover letter to accompany the survey. Lastly, the importance of conducting a pilot test of any questionnaire to detect possible problems before it is actually mailed out is essential.

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