

Questionnaires and Interviews in Educational Researches

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Abstract: *The aim of this study is to deal, through a broader explanation, with the methods of questionnaire and interview, which are not so commonly used both in theory and in practice in Turkey. Hence, the advantages and disadvantages of the methods of questionnaire and interview in the investigation of a scientific and social fact in educational researches are presented in detail. In our country, questionnaires and interviews, which are qualitative research methods, have recently began to be rarely used in educational researches; as a result, meticulous studies have come out. One other thing to be focused on in this study through a comparison between a questionnaire and an interview is also the advantages and disadvantages of these methods over each other. A large number of researches conducted through these methods in the field of education are cited here as examples. The use of each method with a different result in the same study in social sciences is of special importance in terms of the validity of the results obtained. This study is expected to guide or highlight the researches to be conducted in the field of social and educational sciences.*

Key Words: *Education, questionnaire, interview, qualitative research*

Eğitim Araştırmalarında Anket ve Mülakatlar

Özet: *Bu çalışmanın amacı, Türkiye’de hem teoride ve hem de pratikte çok yaygın kullanılmayan anket ve mülakat metodlarını geniş bir biçimde ele almaktır. Bu bağlamda, eğitimle ilgili araştırmalarda bilimsel ve sosyal bir gerçeği araştırırken mülakat ve anket metodlarının avantajları ve dezavantajları detaylıca sunulmaktadır. Ülkemizde, niteliksel araştırma metodlarından olan mülakat ve anketler eğitim araştırmalarında son dönemlerde azda olsa kullanılmaya başlanmıştır. Bunun sonucunda çok ciddi çalışmalar ortaya çıkmıştır. Ayrıca bu çalışmada ele alınan bir başka konu da şudur: Mülakat ile anket arasında bir karşılaştırma yapılmış ve bu iki metodun hangisinin diğerine göre daha avantajlı ya da dezavantajlı olduğu üzerinde durulmuştur. Eğitim alanında bu metodlar kullanılarak yapılan çok sayıda araştırma burada örnek olarak sunulmaktadır. Sosyal bilimler alanında yapılan aynı çalışmada bu iki metodun farklı sonuçlar vermesi, elde edilen sonuçların geçerliliği açısından özel bir önem taşımaktadır. Bu çalışmanın sosyal ve eğitim bilimleri alanında yürütülecek araştırmalara ışık tutacağı umulmaktadır.*

Anahtar Kelimeler: *Eğitim, anket, mülakat, nitel araştırma*

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I. Introduction

Questionnaires and interviews are used in educational researches to collect information that is not directly observable such as, feelings, motivations, attitudes, accomplishments, and experiences of individuals (Gall, et al., 1996). One of the most important phases of a research in educational field is data collection. However, there exist a number of methods or types of data collection. Mc Kernan (1996) divides data collection methods into two main groups; observational and narrative techniques, and non-observational survey and self-report research techniques. This article deals with the advantages and disadvantages of the use of questionnaires and interviews in educational researches as non-observational data collection methods.

II. Questionnaires

Drever (1962) explained the questionnaire as; “a series of questions dealing with some psychological, social, educational, etc., topic or topics, which is/are sent or given to a group of individuals, with the object of obtaining data with regard to some problems; sometimes employed for diagnostic purposes, or for assessing personality traits”. Likewise, Gall et al. (1996) define questionnaire as “documents asking the same questions to all individuals in the sample”. However, according to Oppenheim (1992), a questionnaire should be viewed as an important instrument of research and a tool for data collection as well.

A. Types of Questionnaires

According to Oppenheim (1992), in administration exist three types of questionnaires used for data collection in educational researches.

a. Mail (Postal) Questionnaires: This type of questionnaire is posted to the respondent for answering and return.

b. Self-Administered Questionnaires: This type of questionnaire is presented to the respondent by someone in an official position, such as a teacher. The purpose of the research is explained, and then the respondent is left alone to complete the questionnaire. After that, they are taken back.

c. Group-Administered Questionnaires: This type of questionnaire is self explanatory and is given to groups of respondents assembled together, such as school children. Under the control of one, two or more persons (depending on the group size and literacy level of the questionnaire), respondents fill in the questionnaire and take help from those persons where needed (in an indirect way, without affecting or leading respondents` feelings and decisions). The controllers check finished questionnaires for completeness.

III. Interviews

One of the most effective data collection methods in an educational research is the use of interviews. It is not easy to define what an interview is, for there are various types of interviews. According to Patton as cited by Greenfield (1996); an interview is used

to find out what is in and on someone else's mind which can not be directly observable. Cannel and Kahn, as cited by Robson (1995), give a rather specific definition: "It is a conversation initiated by the interviewer for the specific purpose of obtaining research relevant information and focused by him on content specified by research objectives of systematic description, prediction or explanation". In other words, the interview is another research tool for obtaining rather detailed information about educational topic or topics that are not directly observable in selected individuals involved in the sample by asking questions directly to the respondent.

A. Types of Interviews

Many researchers divide interviews into various types. For example, Powney and Watts (1987) made a distinction between *respondent interviews*, in which interviewer keeps control throughout the whole process and *informant interviews*, in which the goal is to gain some insight into the perceptions of a particular person within a situation.

Robson (1995) and McKernan (1996) made another distinction in terms of the content and organisation of interviews; structured, semi-structured, and unstructured interviews.

1. *Structured interviews*; In this type of interviews, a set of specific questions are asked to the respondents and responses are recorded on a standardised list or table (an administered questionnaire can be suitable for this job) by the interviewer.

2. *Semi-structured interviews*; In this type of interviews, interviewers have a set of certain questions, but they can change their order and can give explanations and examples whenever needed. They can, also, use open-ended questions related to the context of the interview.

3. *Unstructured interviews*; In this type of interviews, interviewers give to the respondents a problem or a topic and let them raise the topic, but let the conversation develop around the problem or topic.

On the other hand, according to Gall et al. (1996), there are three types of research interviews; key informant interviews, survey interviews, and group interviews.

1. *Key informant interviews*; The interviewer collects data from informants who have special knowledge or perceptions that would not otherwise be available to the researcher. Key informants have some specific skills than other members of the population such as, more knowledge, better communication skills, and/or different perspectives

2. *Survey interviews*; Goetz and LeCompte as cited by Gall, et al. (1996) describes three types of survey interviews; confirmation survey interviews, participant construct interviews, and projective techniques.

a. Confirmation survey interviews; It is a kind of structured interviews. It confirms earlier findings and produces some evidences. These interviews are especially useful in large scale questionnaire studies where in-depth interviewing can not be carried out for all respondents.

b. Participant construct interviews; It looks like Powney and Watts` informant interviews. It is used for learning how informants describe their physical and social world.

c. Projective techniques; these techniques let researchers understand how respondents see, perceive and interpret objects and events. They use ambiguous stimuli to elicit subconscious perceptions that can not be observed in the natural setting or solicited through regular interviewing. These techniques may take the form of open ended stories, unfinished sentences, role playing, word association tests, etc.

3. Group interviews; In this interview technique, questions are asked to a group of respondents selected for a specific purpose. The respondents are selected because of their enough amount of knowledge about the research topic. For example, Lewis, et al. (1996), used group interviews in their study. The approach of the investigation was young people`s attitudes to the new genetics. The study focused on young people reaching the end of their compulsory schooling. The sample of students was selected from twelve comprehensive schools in the west Yorkshire region of England. Most of the students (84 per cent) were in their final year of compulsory schooling (aged 15-16). All the participating schools taught science in classes which were grouped by ability. It was this group which was selected to use for data collection.

Another approach to interviewing is *telephone interviews*. In this interview technique, the same items are used with the personal face-to-face interviews. The differences are presented later in this text.

In this paper, from the point of view of content and organisation of the interviews, Robson`s (1995) and McKernan`s (1996) typology is used as; *structured, semi-structured* and *unstructured interviews* and from the point of view of administration, the terms of *face to face interviews, group interviews and telephone interviews* are used as the article typology.

IV. Advantages and Disadvantages of Questionnaires And Interviews in Educational Researches

A. General Advantages and Disadvantages of these Methods

One of the most commonly used methods of an educational research is the questionnaire due to its benefits in the collection of both closed and open-ended information from a specific sample. For example, Smeby (1996) used this method because of the above purpose in his study which is about examining to what extent there are differences between fields of learning in the amount of time that faculty members of a university use for teaching and supervision, and discussing whether such differences may be explained by genuine characteristics of disciplines at some universities in Norway.

Interviews can be preferably used in some special situations or for some problems. However, it is not possible for any one of you to claim that the use of interviews in educational researches always works well or always fails. Information collection, for

instance, from the adults educationally handicapped, such as respondents who have reading or language difficulties, from very old or very young respondents (children under the age of ten) might make interviews necessary. The respondents with such characteristics above are quite likely to lack necessary motivation for data collection by the use of any other method for data collection, such as questionnaire, even though the statements are clearly written. For example, for this purpose Daun (1997) conducted a large survey to find out the relationships between pupil success and certain pupil variables (ethnic affiliation, father's occupation, language used in various instances) and teacher variables (educational level, level of training, experience) in Guinea-Bissau. Daun interviewed the respondents by means of an extensive questionnaire because respondents are lower primary school students.

In the case of questionnaire, respondents record a written response to each questionnaire item and they control the data collection process; they can fill out the questionnaire at their convenience, answer the item in any order, complete it in more than one sitting, make specific comments, skip questions, or give unique responses (Powney and Watts, 1987; Brenner et. al., 1985; Bryman, 1989; Wiersma, 1991; Oppenheim, 1992; Robson, 1995; Greenfield, 1996; McKernan, 1996; Gall, et. al., 1996).

In the case of an interview, professional interviewers take the most advantage of an interview because they never miss or disregard any data. However, it is not easy at all for untrained and inexperienced interviewers to choose the method of data recording and information preservation. The most usual methods for preserving the information collected from an interview are known to be note-taking and tape-recording. Nowadays, videotaping is also used for the same purpose. The interviewer can use one of those methods.

If the interviewer uses the method of note taking, it might disrupt the effectiveness of the communication between interviewer and respondent. If sensitive or confidential questions are asked to the respondents, note taking may distract them from giving information they otherwise might have given. In this case, the interviewer should consider delaying note taking until after the interviewer has completed and the respondent has left the setting. The risk is that the interviewer may forget important details, particularly those that contrast the interviewer's expectations.

The use of tape recorders reduces the tendency of interviewers to make an unconscious selection of data favouring biases, provides complete verbal record which can be studied much more thoroughly than data in the form of interviewer notes, speeds up the interview process, and two or more trained persons can analyse the data independently so that the reliability of their frequency counts or ratings can then be determined. The main disadvantage of tape recording in an interview is that the presence of tape recorder can change the interview situation. Respondents can be unwilling to express their feelings freely if they know their responses are being recorded. Sometimes, researchers can not analyse the responses, especially in groups interviews, some respondents' answers may not be distinguished because of too much noise or bad recording. Even the bad recording

affects face to face interview (Powney and Watts, 1987; Brenner et. al., 1985; Bryman, 1989; Wiersma, 1991; Oppenheim, 1992; Robson, 1995; Greenfield, 1996; McKernan, 1996; Gall, et. al., 1996). For example, Griffiths and Heath (1996) conducted an interview with 26 high school students in Canada to find out high school students' views about technology. Each respondent interviewed individually and their responses were tape recorded. Because of tape recording difficulties, four of these students were eliminated from the study.

The advantages of the use of a videotape in an interview are almost similar to those of the tape recording method, but videotaping method can provide you with a chance to repeatedly watch and observe the respondents' behaviours after the interview has been completed. However, the disadvantages of this method are that videotaping has a more adverse influence on the respondents than tape recording. Some respondents might disagree with recording on a videotape. For example, Kamen (1996) used videotaped interviews in his study about an elementary teacher's implementation of authentic assessment strategies in her science classes. Three administrators -the assistant superintendent, the science co-ordinator and the school principal- were interviewed. The school principal did not accept to be videotaped, so notes were taken.

B. Advantages and Disadvantages of Questionnaires over Other Types of Questionnaires

Self-administered and group-administered questionnaires have some advantages over the postal (mail) questionnaires; in self and group administered questionnaires, the researcher or someone in an official position such as a teacher who gives some explanation for completing the questionnaires can correct the misunderstandings without comment for misleading and control the incompleteness. They, therefore, ensure a high rate of reliability of data. For example, Hendley and Lyle (1996) carried out a questionnaire study to find out the perceptions of pupils in South Wales of the National Curriculum subject of design and technology. They gave the questionnaire to 1675 pupils at 33 schools in the South Wales region. The questionnaire was administered by the class teacher. Pupils sat on their own, no discussion was permitted amongst pupils before or during the completion of the questionnaire. The class teacher explained the nature of the task carefully to each group of the pupils and ensured that everyone knew what was expected of them. There were no spoiled questionnaires.

Group administered questionnaires have some more advantages over mail and self administered questionnaires. For example, all the respondents answer the questions in the same order and time. The one disadvantage of group administered questionnaires is contamination through copying, talking or asking questions.

C. Advantages and Disadvantages of Interviews over Other Types of Interviews

The use of semi-structured interviews in educational researches involves asking a series of structured questions, similarly with the structured interviews, and then probing

more deeply using open form questions to obtain additional information, so that the use of semi-structured interviews gives greater freedom to the interviewer and the respondents in the sequencing of questions and in the amount of time, and attention given to the different topics and greater depth can be obtained from the use of structured interviews.

The use of unstructured interviews does not involve a detailed interview guide. Instead, the interviewer asks questions that gradually lead the respondent to give desired information. Usually, the use of unstructured interviews is difficult for the respondents to express or is psychologically sensitive. For this reason this format is highly subjective and time-consuming.

Telephone interviewing is much less expensive than face to face interviews, especially when the sample is geographically dispersed. They are only about one-half to one third expensive. Although relatively low cost is the greatest advantage of telephone interviews, they have other significant advantages as well (Powney and Watts, 1987; Brenner et. al., 1985; Bryman, 1989; Wiersma, 1991; Oppenheim, 1992; Robson, 1995; Greenfield, 1996; McKernan, 1996; Gall, et. al., 1996);

1. Respondents can be selected from a greater accessible population, so that travel time to individual respondents can be eliminated.

2. Data collection can be centralised because all the interviewers can work from a central location.

3. In telephone interviews with the central data collection, facility, monitoring for quality control is easier. There is little likelihood of data being faced by the interviewer.

4. There is no cost if there is no answer to the call, making frequent call back feasible.

5. Only little time and money can be lost because of the refusals in telephone interviews than if a potential respondent does not keep a face to face interview appointment

6. Many groups, such as school personnel and parents, are easier to reach by telephone than by personal visit.

7. Telephone interviews provide safe access to dangerous locations and access to restricted locations where interviewers might not be admitted.

8. If in-home interviews are conducted, some potential respondents may be threatened by a visit from a stranger, while a telephone call would not be threatening

9. According to Graves and Kahn (1979) as cited by Gall et al. (1996) there is some evidence that telephone interviews can be used to collect sensitive data. One study found that for non-threatening questions respondents` distortions were slightly higher for telephone interviews than face to face interviews.

10. Automatic data entry is possible if any computer assist the telephone interviews, so that the data are ready for statistical analysis as soon as all the interviews are completed. Response accuracy can also increase with such computer assisted interview technique,

because the interviewer can concentrate on responses rather than worry about question to ask next (All of the appropriate questions listed related to the respondents answers).

Because of some advantages mentioned above Cownie and Addison (1996) conducted a telephone interview with 94 respondents who were members of the English Language Teaching Unit at all Institutions which have such unit in the UK to discover factual information about the provision of language support to international students. Their reasons for using telephone interviewing are to achieve a higher response rate, relatively economical than face to face interviews, suitable for this set of respondents who are professional people, less effective than face to face interviews in eliciting answers to sensitive questions.

Despite the advantages, there are some disadvantages of the telephone interviews over the face to face interviews;

1. Although the telephone is more effective in locating hard-to-reach respondents, refusal rates for telephone interviews is slightly higher than for face to face interviews.

2. The telephone number of each selected individual is needed for telephone interviews. It is necessary to determine the phone numbers in some way, such as city telephone directory can be useful but it may not be found unlisted numbers, or some individuals, especially those with low incomes, do not have telephones. Eliminating individuals selected for the sample should be avoided because their telephone numbers are unlisted or they have no telephone. To do so it would create a biased sample, and thus, it would weaken the generalisability of the research results (Powney and Watts, 1987; Brenner et. al., 1985; Bryman, 1989; Wiersma, 1991; Oppenheim, 1992; Robson, 1995; Greenfield, 1996; McKernan, 1996; Gall, et. al., 1996).

One great advantage of the group interview in educational researches is that it might be used by involving teachers in the interview without creating any disruption to their normal teaching procedures. In group interviews, respondents can permit a discussion to develop any topic in order to collect a wide range of responses, but in the case a larger group size, it is difficult to administer, such as some individuals do not have the opportunity to speak, it is difficult or impossible to follow up the views of individuals, when one or two persons dominate they do not let others to contribute. In contrast, one to one interviews are easy to manage, issues can be kept relatively confidential, and analysis is more straightforward.

Group interviews work best when all members are on an equal basis, for example, all the teaching staff of a school. If the school principal is included, the teachers may not share their actual perceptions of the phenomena being investigated because group dynamics or power hierarchies affect the speakers and what they say. When interviewing individuals, you can arrange to meet with each respondent at your mutual convenience. In group interviews, however, all respondents must be assembled at the same time and place. This is not an easy task and so you will need to follow systematic procedures to ensure that it is accomplished successfully.

D. Advantages and Disadvantages of Questionnaires over Interviews

In educational research, the questionnaire as a means of data collection is generally easy to manage. Any trained interviewer is not needed. But, this advantage of questionnaires can turn into a disadvantage in the absence of someone who can explain the items in the questionnaire which look unclear or obscure to the respondents. Researchers have to prepare the questionnaire items by clearly and unambiguously expressing the items in a simple language to prevent misunderstanding. In this case, questionnaires can take rather longer time to prepare than interviews. Questionnaires provide anonymity important to respondents who do not want to be recognised. In interviews, respondents can not hide their identities. Although interviewers never reveal their names and just use the responses that they give, some individuals can refuse conducting interviews with them.

The questionnaire provides direct responses of both factual and related information. The respondents cannot deal with unrelated information. Therefore, analysing the data takes almost no time because of such information. On the other hand, the major advantage of interviews is their flexibility and adaptability to find things out. Professional interviews can follow up respondents' answers by using in-depth probing to obtain more information, but questionnaires can not probe deeply into respondents' opinions and feelings. If you try to probe into respondents' opinions and feelings in a questionnaire, this can affect the respondents' answers and they can try to produce correct response. And this situation causes to reduce the standards of validity and reliability. You need to keep in mind that questionnaires and interviews are forms of measurement and, as such, they must meet the same standards of validity and reliability as applied to standardised tests and other measures used in researches (Gall, et. al., 1996).

Sometimes, filling out a questionnaire takes much less time than the conducting an interview, because interviews are much more costly in terms of time and effort than questionnaires. In filling a questionnaire, respondents lose much less time, and it can reduce the refusal rate.

If the questioning order is well designed, the respondents can fill in the form without too much effort. On the other hand, analysing the questionnaire items can take a long time. Analysing is not always difficult but interpretation can be problematic, especially in using open ended questions. Because, in using open ended questions respondents give a wide range of information including their feelings about the questionnaire items. Therefore, responses require more time and thought in interpretation as a variety of responses are possible. In the use of closed ended questions you can make data processing easy because respondents can not give as wide information as in using open ended questions. If researchers arrange the codes to be keyed in a coding column and pre-assign a data file location for each data item, the data processing can be easier (Powney and Watts, 1987; Robson, 1995; Greenfield, 1996; McKernan, 1996; Gall, et. al., 1996).

Interviewers complete their researches more successfully than researchers who use questionnaire. What I mean is that the interview yields more complete information than the

questionnaire. We need to keep in mind that the success of each interview is dependent on the skills of the interviewer and willingness of the respondent. In educational researches, the researchers, such as research students, research assistants have to carry on their own interviews by themselves because of the low budget. Most of them are untrained and have limited or no interviewing experience, which affects the performance of interviews (Bryman, 1989; Wiersma, 1991; Oppenheim, 1992; Robson, 1995; Greenfield, 1996; McKernan, 1996; Gall, et. al., 1996).

1. Advantages and Disadvantages of Mail Questionnaires Over Interviews

Mail questionnaires are a cheaper way of data collection than interviews, especially when there is a large number of respondents who are geographically dispersed. Postal questionnaires are much less expensive, even when postage provided for their return. If respondents are far apart from each other the cost of interviewing would be even greater, because of the cost of travel between respondents. The telephone interviewing is much less expensive than face to face interviews but it is still much more expensive than postal questionnaires.

The cost factor also includes the data-processing stage; coding operation in interviews is costly in terms of time and money because interviewers use many open-ended questions. Most of the studies in which interviews were used may take weeks or months and the coding may take longer. In postal questionnaires, the time required to collect data typically is much less to conduct and to process. The time needed to code and analyse responses is also short.

In the use of mailed questionnaires, there is no control over the order in which questions are answered, and there is no check on incomplete responses, incomplete questionnaires or the passing on of questionnaires to others. On contrary, interviews can build trust and rapport with respondents thus making it possible to obtain information that the individual probably would not reveal by any other data collection method.

In the case of postal questionnaire, because there is no interviewer, there can be no interviewer bias. However, sometimes respondents can interact with the questionnaire and may project some kind of person or organisation behind the questions, and this may bias their responses.

Because the contact between interviewer and respondent are face to face and may be intensive, there is ample opportunity for bias occurrence. Interviewers are human beings so they have their own perspectives and biases. In an interview, the interviewer should try to obey the rules and standardise the interview. Although the standardisation of the interview situation is difficult, it must be scheduled since they involve an interchange between two people so that the interviewer does not influence the respondent to answer a question in a certain way. Characteristics of the interviewer, such as age, education, socio-economic status, race, religion, sex, etc. affect the respondents' answers. Perceptions, attitudes, expectations and motives of the interviewer affect the respondents' answers.

Unintentionally, interviewers may give clues to their own attitudes and values and even the kinds of answers they would like to receive from the respondents. Behavioural factors, such as incorrect reading, recording, probing of the questions etc. also affect the respondents' answers. Many of untrained and inexperienced interviewers may not appreciate the difference between a probe and a prompt, where to use check list, where to keep silent. If the interviewer reflects after the respondents' answers, such as 'Good', 'Oh really', 'I do agree', these reflections will inform the respondents about the interviewer's own position and can cause bias. To collect unbiased data the interviewers should pre-test the interview in a smaller number of samples. After piloting, interviewers will yield reasonably unbiased data and also, can check wording of the interview items (Powney and Watts, 1987; Brenner et. al., 1985; Bryman, 1989; Wiersma, 1991; Oppenheim, 1992; Robson, 1995; Greenfield, 1996; McKernan, 1996; Gall, et. al., 1996).

On the other hand, it is not possible to correct the items in the questionnaire that are unclear when the questionnaires are distributed to the respondents or after they are sent to respondents.

In mail questionnaires, the response rate is generally lower. According to Backstrom and Hursh-Cesar as cited by Haney et. al. (1996), survey response rates typically range from as low as 10 per cent for a general population to as high as 80 per cent for a well motivated sub-sampling of the population. The authors conveyed that 70 per cent response rate is extraordinary.

Interviews generally have a higher response rate than a questionnaire has. For example, Donnelly, et al.(1996) reported in their study, about 'Creation and Implementation of the First Attainment Target for Science within the National Curriculum for England and Wales', that they sent 3 different questionnaires to the schools. After that, the response rates of them were 47 per cent, 53 per cent and 61 per cent. On the other hand, they completed all of the planned interviews. Therefore, we can say, if the interview is granted there is no problem with non-response.

The reason for low response rates in postal questionnaires may be the fact that respondents do not know anything about the researcher, and may be addresses that the questionnaires are sent are wrong. For example, Haney, Czerniak, and Lumpe (1996) carried out a survey about identifying the factors influencing science teachers' intentions to implement the four standards (inquiry, knowledge, conditions, applications) of the state of Ohio's (The USA). Competency based science model into their classroom. In one part of their survey, they sent 800 mailed questionnaires to randomly selected teachers across the state. They obtained 52.5 per cent response from the study. They said that this response rate was adequate. They also accepted that the response rate was little bit lower and they discussed the reasons of low response rate as; "this was a state wide mailing and therefore the respondents may have been unfamiliar with the authors of the survey. The questionnaires addressed to 'teacher of science' rather than by individual teacher names, because no such list exists in the state".

On the other hand, in postal questionnaires, the response rate can be increased. To do this, you should:

- *Precontact the Sample*; the pre-contact can take the form of a letter, postcard or telephone call. The telephone contacts are the most effective (Linsky as cited by Gall et, al., 1996).

- *Writing a Cover Letter*; it should be designed carefully. It should be brief but must convey certain information and impressions. The purpose of the study should be explained so as to influence the respondents that the study is significant and that their answers are important.

- *Follow up with Non-respondents*; A few days after the time limit specified in the cover letter, it is desirable to contact non-respondents by sending a follow up letter, along with another copy of the questionnaire and another self addressed envelop (Heberlein and Baumgartner as cited in Gall, et al., 1996). Figure 1 shows the pattern of responses reported in a review of 98 experimental studies on this problem.

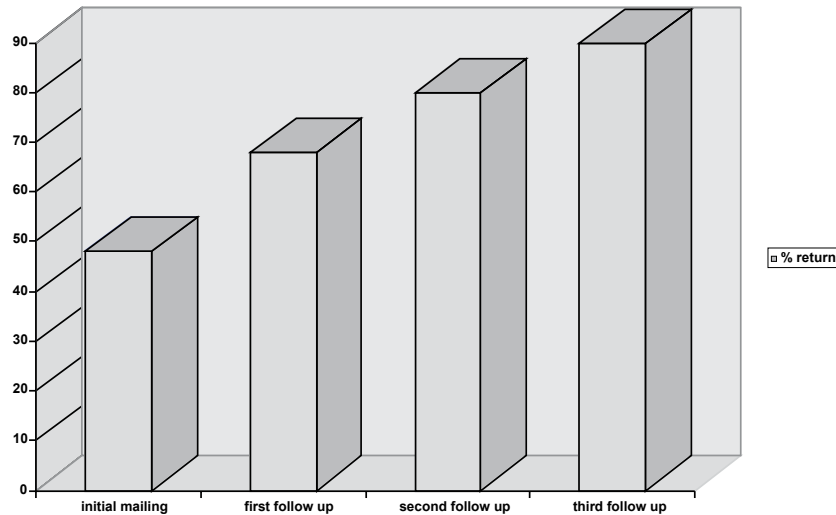


Figure 1: A synthesis of research findings on response rates for initial mailing and different numbers of follow ups (Adapted from Heberlein and Baumgartner, 1978 by Gall, et al., 1996).

Interviewers can present an amount of information as to the study with the respondents to emphasise the importance of the study. The more convincing the explanation is, the better and the more factual the responses will be. Provided the respondents cannot understand any part of the interviews, the explanation made might be a guide to check it immediately in a way.

2. Advantages and Disadvantages of Self-administered Questionnaires over Structured Interviews

The advantages and disadvantages of self-administered questionnaires over structured interviews instead of interviews in general are studied here because there is little or no difference between self-administered questionnaires and structured interviews.

The chief similarities between the two methods are based on data gathering on fairly to very large numbers of respondents. In many respects, the structured interview is simply a questionnaire that is administered in a face to face setting. The aims of both data collection methods are to make people's responses as comparable as possible, but there are also some advantages and disadvantages of self-administered questionnaires over interviews.

One another advantage of self-administered questionnaires is that they are cheaper, like mailed questionnaires, than interviews when there are a large number of respondents.

Self-administered questionnaires are quicker for the researcher than interviews. Copies of the questionnaire could be distributed in a school (where the number of respondents could be 100 to 1000 or more). Respondent forms could be completed and returned to you in about the same amount of time that it takes to complete a single structured interview. But researchers can never be certain who have answered a self-administered questionnaire, when the questionnaires are sent to a private school, for example, it is impossible to know whether the person to whom it was sent has answered it. As a result, there may be a good deal of variety in the roles and statuses of respondents, a factor that may have implications for the comparability of the data.

Because there is no interviewer present in self-administered questionnaires, characteristics of interviewers, such as their age, appearance, race, gender, and social class, can not affect negatively respondents' answers.

If respondents need to ask some questions, research workers may in this way utilise the help of some one in an official position who is not a professional interviewer. They may, with the best intentions, introduce fatal biases, so that the respondents can make wrong responses because of the misunderstanding.

Respondents can read the whole questionnaire, and then start to answer the first question, so that answers to early questions may be influenced by their knowledge of the later ones, perhaps making answers more consistent than they would otherwise be.

If you go to a school carrying out a self-administered questionnaire, you cannot observe each respondent individually. Maybe you can not stay in each places where questionnaires filled in, from beginning to end. Maybe you can observe nothing in such small amount of time because of much amount of work to done. Therefore, you can not collect such additional material that an interviewer can collect during the face to face interviewing.

3. Advantages and Disadvantages of Group-administered Questionnaires over Interviews

Depending on the size of the group and its level of literacy two or more persons will observe the administration of the questionnaire. They also control the finished questionnaires for completeness, In this way, this type of questionnaires have nearly the same amount of response rate as interviews do. On the other hand, if the number of respondents is overcrowded, the researcher or someone who helps the researcher may not control the group to avoid contamination through copying, talking or asking questions.

In contrast to the use of other types of questionnaires and interviews (except group interviews), sometimes, variations in procedure may take place. For example, empty booklets may be given to the respondents; some slides or a film may be shown; some questions which are about the slides or the film may be read aloud, one at a time, while the respondents write their answers in the booklets next to the question numbers. In this way, all the respondents answer the questions in the same order and they all have the same amount of time to do so.

V. Conclusion

As mentioned before, questionnaires and interviews are used in educational researches to collect data which are not directly observable, such as feelings, motivations, attitudes, accomplishments, and experiences of individuals. A wide range of educational problems can be investigated with questionnaires and interviews.

Some researches distinguish the use of questionnaires and interviews as; questionnaires are more commonly used in quantitative research because of its standardised and highly structured design, and interviews are more commonly used in qualitative research, because of its permission open ended exploration of topics and responses. However, both methods can be used in either type of research.

On the other hand, there is no exact answer to the question 'which data collection method is better, questionnaire or interview?', because neither is always good or bad. Researchers can prefer one of them related to their purpose of study. The choice of the method is also affected by some other reasons such as, costs, resources, detail and complexity of data which should be collected successfully. If researchers have low budget and limited time, such as a research student, they must keep main cost low. They can use postal or self completed questionnaires, because the use of interviews for geographically dispersed sample needs much more money and time than the use of questionnaires.

If they need detailed information about a problem or circumstance or the topic is too complex to need in-depth probe, they can use face to face interviews in a particular place, such as a school, or they can use telephone interviews which can be cheaper than face to face interviews. If they have enough amount of time and money, there is no problem with the choice. They can conduct face to face interviews, if they want or need, because

they cover complex topics and achieve higher response rates than questionnaires and telephone interviews.

Researchers do not have to choose one of the methods to collect data. They can use both methods in the different stages of a study. For example, Morais and Miranda (1996) used both methods to find out the students' understandings of teachers' evaluation criteria and the relation of that understanding with social class, social context of the school, teachers' conceptual demand, teachers' explicitness of criteria, and science achievement. Data on students' social class were obtained through questionnaires answered by parents, recognition and realisation rules in the assessing context were investigated by means of a semi-structured interview with students.

One of the both methods can be used for supporting the other. For example, Haney et al. (1996) used both methods in their study, which was mentioned before, in this purpose. They conducted 13 structured interviews with teachers representing a diverse population and sent 800 mailed questionnaires to randomly selected teachers across the state of Ohio (US). Both methods are used for examining the factors influencing teachers' intent to implement the strands, a structured interview was needed to access teachers salient believes regarding the direct factors that influence their intentions.

They use one of the methods or both, the main important things are; the method/ methods have to be clearly related to the objectives of the study, the questionnaire items have to be tested by a pilot application, and the validity and reliability issues have to be established. Otherwise, the use of questionnaires and/or interviews in educational researches will be a waste of time.

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