SOME FIELD PROBLEMS IN RURAL SOCIAL RESEARCH WITH PARTICULAR REFERENCE TO GHANA

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I. Introduction

This article is concerned with highlighting some of the pertinent field problems and issues commonly encountered by fieldworkers in carrying out rural social research. The specific intention is to draw attention to some of the particularities and problems of rural social research and to suggest some field strategies to help to lower field error and to increase reliability and validity measurements in collected field data.

II. The Research Rationale

In Social Research the scientist uses the scientific method to discover patterns of social forms and relationships. An organised and a systematic method is used to seek information into the social composition, living arrangements, activities and views of a group of people.

The social scientist assumes the existence of the existing social situation. That there is in existence a well defined social structure and the people, within this well defined social structure, do not act in quixotic way. Rules of social behaviour exist. People relate and interact in a meaningful way to maintain a form of social cohesion.

Assuming all these positions the social scientist develops a methodology with a built in significant level of objectivity criteria, to study the nature of the existing social structure. He uses the scientific method to study the social phenomena in order to present

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an intelligible image of the system. In the research operation, the serious social scientist is dogma free except his pre-occupation with his basic assumption that through rigorous scientific methodology he will be able to discover patterns of social interaction and "meanings", social participants give to their social situations and relationship.

How do these people define the nature of their existing social reality? What meanings do they give to social action? What is the nature of the relationship between the research worker and his respondents? What method dan help to increase the efficiency level of the operational tools of measurement? What methods in sampling can be designed to increase the response rate in rural community studies?

III: Field Experience

In Ghana, according to the recent census figures, about 70 per cent of the people live in rural and outlying settlements. A few of the population (30°/o) live in the urban towns and cities. A significant majority of the people therefore, share traditional ways of life and work in traditional based institutions. Essentially, these institutions are different and the mode of life has its own situational logic. Kinship plays an important role in their social relationships. Many of the people are subsistence farmers. They work on kinship farms and return home late in the evening. A significant proportion of them consists of old people and the very young. Many of them are illiterates. They are exposed to a different style of life. They share a different belief system and their cultural ideas are quite different from what exist in the industrialized social systems.

Experiences acquired from three social surveys within the period 1972-7n can throw some light on the postulate that there is a remarkable difference between the urban response rate, among literate respondents and the rural response rate involving illiterate respondents.

In 1972, the University of Ghana Medical School Community Medicine, asked two research scientists, E.O. Boateng, ISSER and P.A. Twumasi, Department of Sociology, to conduct a social survey into "Housing Conditions and Utilisation of Health Services with Particular Reference to the Population of Achimota Village, Adabraka and Tesano in Accra". The Study was conducted during the long-vacation period from June to September 1972.

In pursuit of the research problem it was necessary to indicate the nature of the housing conditions and to show whether there is any difference in health behaviour pattern with particular reference to the population in Achimota Village, Adabraka and Tesano.

At Achimota Village we selected a homogenous group of people at Achimota Kopevi Village. They belong to a particular ethnic group. Most of them were illiterates, unemployed and those employed were mainly of the self-employed variety. Adabraka residents were fairly mixed - all types of people were found in this locality. A significant proportion of them were educated and employed in formal organization of work. The other survey area was inhabited by people from the professional class, lecturers, doctors, lawyers and other high administrative personnel. They represent a significant proportion of the resident who live at Tesano. It is a residential area.

52 medical students were selected and trained in field methods, problems involved in interviewing, measures of reliability and validity in data collection, establishment of field report and other related field issues. The important point in this training phase, was

to instil in them field skills and techniques, to acquire similar orientation in probing questions and to develop methods to help increase the response rate in the collection of relevant data.

We took into consideration the nature of the field situation. Those who were familiar with the area were selected to work in that area. The language question was also noted. The field assistants were put into groups of three. The interviewers were conversant with the particular predominant language spoken in the area. They were also introduced to the psychology of interviewing techniques, how to establish field rapport, ask the right questions at the appropriate times and measures used to increase field response rate.

Daily checks were made. The collected questionnaire schedules were checked and edited. Incomplete frames were returned and refilled. Field assistants were continually encouraged to go to the selected houses at appropriate times suitable to the respondents.

The sampling scheme adopted for the study was probabilistic. The essential argument in probability sampling as argued by Kish[1] is that we can specify for each element of the population the probability that each element will have the chance to be included in the sampling design. Each individual within the selected population universes (i.e. Achimota village, Tesano and Adabraka) had non zero chance of being included in the sampling design. What is necessary in probability sampling theory is that "for each element and its combination there must be some specifiable probability that it will be included"[2] (Selltiz, p.513).

We adhered to this principle in probability sampling because it is the only approach, in sampling methodology, that makes possible representative sampling design. This method enables the designer to check error in an organized and systematic way. It makes it possible for the designer to estimate the extent to which the collected data based

on the estimated sample are likely to be different if he were to study the entire population. In using the probability sampling frame we expect the estimated sampling mean to differ or to differ insignificantly from the expected survey population value.

In order to lower variance within each stratum of the survey universe, the sampling scheme adopted for the study was stratified sampling method. We began this scheme by systematic sampling procedure with a random start for each selected stratum.

As said earlier, the areas were stratified. There were differences however. But these differences whereas allowing us to obtain more information did not contribute significantly to the sampling error of the population mean. In fact it can be shown that differences between strata mean in the population do not contribute to the sampling error of the estimate of the population mean. Sampling error of the estimate of the population mean comes from variations among sampling units that are in the same stratum. Hence through stratification the investigator can get homogenous sampling units to lower sampling variance.

Also the nature of the sample size was taken into consideration. Where a stratum showed more variability than other areas, a larger sample size was taken, meaning that a stratum of less variability got a smaller sample size. This method enabled us to explain variability in a more meaningful way.

As indicated in Table 1, the sampling figures for the three areas were as follows: Achimota village 430 respondents, Adabraka 1,800 respondents and Tesano 370 respondents. The corresponding figures show the response and non response rates estimated in percentages. The non response rate is higher in Achimota village (13.0%); this village it must be remembered, is inhabited mainly by rural oriented, illiterate population.

Table 1

Response and Non Response Rates at Achimota Village, Tesano and Adabraka

Response	Achimota Village		Tesano		Adabraka	
Non Response	Abs.	%	Abs	%	Abs	%
Rates:						
Response rate	370	86.4	365	98.5	1760	97.5
None Response Rate	60	13.6	5	1.5	40	2.5
Total	430	100	370	100	1800	100

See E.O. Boateng and P.A. Twumasi, Community Health Report No.6 University of Ghana Medical School, Department of Community Health, Accra, 1972.

In both Tesano and Adabraka, the inhabitants are fairly well educated and work in formal institutional establishment. The response rates were significantly high. What then accounts for the high non response rate in Achimota village.

Before we attempt to explain the differences in the response rate it is equally important to look at similar differences in response rates in two other social surveys.

In 1973 the Population Dynamics Programme of the University of Ghana (in conjunction with the University of North Carolina, Chapel Hill, U.S.A.) agreed to finance a study into some traditional attitudes towards health, disease and family planning in four selected Ghanaian Communities, The Principal Investigators were Drs. G.K. Nukunya and P.A. Twumasi (both of the University of Ghana). We selected two urban areas and two relatively isolated rural communities.

(i) Nsawam - It is one of the principal towns in the Eastern Region with a population of 25,528, according to the recent census figures.

(ii) Doboro - It is in the Eastern Region. It is situated on the Nsawam-Aburi road. It is a small farming community whose inhabitants are mainly subsistence farmers. According to the census figures its population was 278. It is a rural settlement.

In the Volta Region we selected Dzelukofe and Abor.

(iii) Dzelukofe - shares the characteristics of an urban town. It is about 130 kilometres from Accra, with a a population of 5,153 people.

(iv) Abor - is a small community. By the standard definition, it is a rural in both sociological and demographic terms, with a population of 3,434 inhabitants. It is ethnically a community. The inhabitants represent 96.58% of its people.

The preceding Table 2 shows clearly the response and non response rates. The response rate is higher in the urban areas than in the rural settings (see Table 2)

Table 2

Response and Non Response Rates in Four Communities: Nsawam, Doboro, Dzelukofe and Abor

Response and Non Response Rates:	Nsawam		Doboro		Dzelukofe		Abor	
	Abs	%	Abs	%	Abs	%	Abs	%
Response rate	694	99.1	55	78.3	193	96.5	175	92.1
Non Response - rate	6	0.9	15	21.7	7	3.5	15	7.9
Total	700	100.00	70	100.00	200	100.00	190	100.00

See Dr. G.K. Nukunya and Dr. P.A. Twumasi, Traditional Attitudes Towards Health Disease and Family Planning in Four Selected Ghanaian Communities, Legon, Population Dynamics Programme Study. June, 1974.

The other social research was conducted in June 1974, by a group of principal investigators headed by Professor N.O. Addo, Director of Population Dynamics Programme, University of Ghana. The purpose of the survey was to study "The Impact of Tourism on Social Life in Ghana". This research was commissioned by the Ghana Tourist Control Board.

The sample areas included both urban centres and rural communities. All the regional capitals were included in the sample. Some villages were also included. The villages were selected, one from each region, to act as control to determine if there was a difference between rural-urban analysis of tourist behaviour pattern.

The field assistants were University of Ghana students. They were given an intensive orientation course into field psychology, acquisition of research techniques and skills to give them a meaningful insight into the nuances of fieldwork. They were distributed at the end of their training to the selected areas to interview and to assist the respective respondents to fill the questionnaire schedules.

During the fieldwork, many of the field workers complained about the difficulties met in contacting both rural and urban respondents in certain areas. Recalls were made. Substitute samples were framed. Interviewers re-entered the field. They were closely supervised. In the final analysis there was some improvement in the urban response rates where as the difficulties in reaching some of the respondents in rural areas persisted. Part of the reason was that some rural respondents were not found in their usual place of residence. This fact was borne by data from Paga in the Upper Region, Ewhia in Ashanti Region and Kato in the Brong-Ahafo Region. These communities are rural, inhabited mainly by farmers.

The data cited in the last few pages clearly throw some light on the nature of response rates in rural and urban studies. The comparative relationship between rural and urban response rates is established. It will be more meaningful to get more data from other research studies to make definitive statements. The interesting point about this analysis is that future research workers should meaningfully take into consideration the nature of this tentative observed relationship in order to improve the quality and the quantity of data in rural field research. This preposition is significant because in Ghana and in many of the developing countries in Africa a significant proportion of the people live in rural and outlying settlements. A minority reside in the urban areas.

A possible explanation is ecological. In the urban situation, we have large dense permanent settlements. The buildings are well defined. The area maps are relatively well outlined. The numbering of the houses is relatively much better outlined than found in rural environment. Secondly the rural population exhibit a different style of life. They are mainly subsistence farmers, they have different work culture and habits. They go to their farms during the best part of the day, some return late in the evening, others never return during the day. Some may choose to sleep in the farming houses or settlement especially during the planting and harvesting seasons. Some go on long ways, on footpath, to attend to kinship business and funeral arrangements. Many rural folks have been noticed to shy away from embarrasing questions. Wrong identity of the interviewer may also play a part to increase the non response rate. As indicated by one of the field interviewers, "some of us were mistaken to be tax collectors".

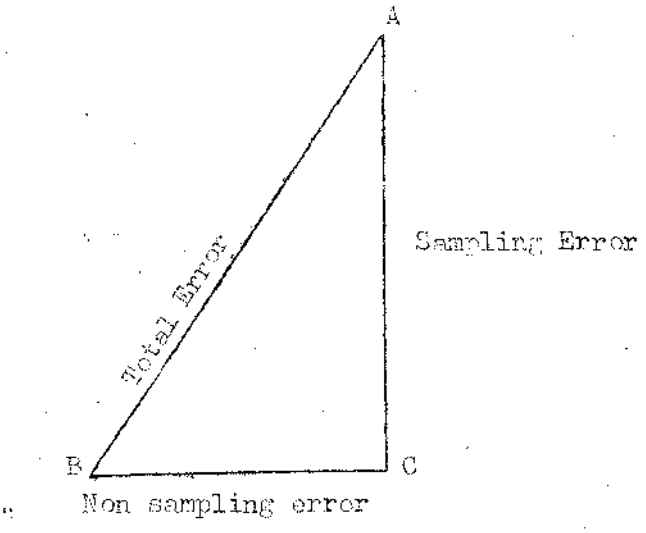
In Small-Scale Social Surveys, unlike census studies where the mass media and other government publicity media assist to prepare the local inhabitants to remain in their homes, we tend to get poor publicity. So the non response rates in small scale social surveys tend to be much higher than found in census studies.

The travelling arrangements of the rural folks, work habits and pure sensitivities about answering certain research questions do account for the higher non response rate in rural studies. The educated urbanite it must be pointed out, shares a similar orientation with the field interviewer. He understands the interviewer, tends to co-operate because he knows the meaning of these research studies. Questions about sex and other related sensitive matters are freely discussed.

Different norms and cultural idiosyncracies can effectively account for the discrepancies between the non response rates in the two cultural settings. These indications show clearly that in carrying out field research in rural cultural settings, the field scientist must of necessity use culturally relevant field methods in the collection and validation of field material.

As pointed out by Kish[3] two types of errors can be encountered in all field surveys. These errors are (1) sampling errors and (2) non sampling errors. The interaction of these two errors tend to produce total research error.

Put diagramatically the position is that of a right angled triangle, in which $AB^2 = BC^2 + AC^2$. That is to say the sq. on the hypothenuse is equal to $AC^2 + BC^2$. It means there is a functional relationship between sampling and non sampling errors, to produce interactively "Total Error".



To reduce errors therefore in social research the two legs, AC and BC must be critically controlled through rigorous scientific methodology with a view to lower errors. On the AC leg, is sampling error. In sampling design, a widely accepted model combines the variable error and the bias into the total error.

To reduce error in sampling, a meaningful representative sampling must be designed. Kish mentions three points in this regard (1) that the true value must be uniquely defined (2) that the true value must be defined in such a manner that the purposes of the survey are met and (3) where it is possible to do so consistently with the first two criteria, the true value should be defined in terms of operations which can actually be carried through.

These measures if neglected can affect sampling frames as well as the non sampling measurements. For some items the true values can be obtained relatively easily but for others difficult to obtain.

The non sampling errors can emerge from non coverage, non response, errors in observation, framing of the questionnaire and asking sensitive

questions without establishing a meaningful field rapport. Errors of non observation can also result from failure to obtain information from certain segment of the survey population.

It is in this sphere that we can distinguish between two sources of non response error. These are non coverage and non response. The former means there is a failure on the part of the designer to include some meaningful units of the defined population area in the actual designing of the sampling frame.

The non response refers to the failure on the part of the field interviewer to get information on some respondents, originally included in the sample frame. It could be due to the non coverage of area unit, that is to seeing coverage errors as a result of incomplete listing. Incomplete listing is usually an outcome of inaccessibility and difficulties in mapping the area, sufficiently. Non response rate will increase sampling error by decreasing the effectiveness of the calculated sample size and the non sampling error.

As pointed out also by Som[4] sampling bias may arise from inadequate or "faulty conduct of the specified probability sample or from methods of estimation of the universe values." This may be due to wrong selection procedures and partial or incomplete enumeration of the selected units. In sampling, the researcher must include diverse elements in the proportions in which they occur in the actual population. Size of sample alone is no proof that the estimate will be accurate. Hsin Pao Yang[5] opines that "a small sample cross-checked by various methods may under certain circumstances produce more accurate and reliable information than a large one"; if meaningfully selected, such a small size is more economical and efficient to handle than a larger one.

Definitions of operational variables must be clear and distinct. Vague concepts, unclear definitions and improper application of theory will also blur the focus of research.

Inherent in social research is the ability to develop viable methods to collect valid and reliable data. Field methods must be carefully designed and selected to suit each empirical social situation. To ascertain views and opinions about social phenomena, there is the need to reflect constantly on the issues of reliability and validity of tools of measurements.

Questionnaire construction, interviewing methods, field rapport and the possibility of designing a strategy to increase reliability and validity indexes must be given a field consideration.

The argument is that the rural population live in a different social environment. The style of life, their mannerism, work habits and value orientation must be carefully noted, evaluated and assessed before planning rural social surveys. Unlike census such surveys are not given adequate governmental publicity. Thus if inadequate preparations are made, errors can emerge to lower the response rates and these affect reliability and validity of measurement. Field procedures must be guided by its propriety and fruitfulness. The need is to seek sedulously respondents who are acute observers of the social situation. Informants can be used or a small number of such individuals can be brought together in a discussion. This method may be more useful in many instances than the formal questionnaire method especially when dealing with illiterate homogenous population.

IV. Field Strategy:

The initial problem is to select an appropriate research topic. The selection of a research topic needs some thought. Do the rural folks have answers to the research problem? Do they often shy away from discussing the essence of the topic? What methods can be used to

extract the field material? The ability to perceive in some brute experiences the occasion for a problem, and especially a problem whose solution has a bearing on the situation, is a good starting point in any field research. The ability of the social scientist is sharpened if he reads what has been done in the field of his interest, to throw some light in the area of his operational research, and to know about the sensitivity of the people in the area, to learn about relevant techniques already in use in collection of field data, and the methods used to establish rapport with the respondents in the field situation. Secondly after the selection process is finalised there is the need to specify the crucial research concepts and variables to be used in the research process. These concepts must be defined empirically and translated into local languages appropriately. Such testable indicators must have empirical based validity and reliability measurement criteria. The prevailing social mood must be assessed. The empirical definition must be relevant to the existing social mood. One way to achieve a meaningful empirical definition is to pretest the social indicators or the operational variables in the area of research, to learn or to discover "how the people in the social situation" define and give meaning to the concepts under consideration.

Thirdly the methodological tool for data collection must receive some considerable thought. In the rural society, the majority of the people are illiterates, cannot read and write in the official English language. Sensitive questions must be carefully framed to avoid misunderstanding and preferably only asked when the necessary field rapport has been established between interviewer and the interviewee. In making the decision about the particular field technique, the researcher must keep in mind the nature of the social situation, the types of people and the nature of the field problem.

The most predominant techniques used however are the field interviewing technique, properly constructed and meaningfully translated questionnaire, the participant observation, the structured observation technique and the panel discussion method. It is important to use more than one method in collecting field data. Then in entering the field, the researcher must give a proper account of himself. He introduces himself to the power structure of the community, the legitimate chief, his elders, other prominent leaders of the community etc. in order to gain a legitimate entry into the community. The aim of the project must be given together with its applied implications. If these introductory discussions are clarified then unnecessary suspicion will be discarded. This formality can give the field researcher the passport to enter into the chosen community.

Then he must settle down to do some serious fieldwork. His life style and general approach to the fieldwork must be meaningful to the people in the localities. He must be aware that he is dealing with a gemienschaft society. They act in a friendly manner. Kinship relationship plays an important part in the day to day activity of the people. The researcher must be careful not to offend any person in this situation. He must be fair and objective in his relationship and social interaction. Any word discussed with a particular household will be known by others in other households. If he has the use of a motor vehicle, for example, he may be asked to give "lifts" to people in the village who may urgently need such an assistance. If he does a favour to one section of the community, he must be prepared to do likewise to others in order to maintain good field relationship and rapport.

In all collected field data, the question of reliability and validity issues should also be determined. Reliability refers to consistency of field answers, i.e. consistent data; are the answers reliable and how relevant are the answers in respect to the research

problem? The latter question addresses itself to the issue of validity. It is precisely in this direction that at least two methodological tools must be used to check for consistency and reliability of the field data. Furthermore the interviewer must have a built-in checks, by introducing certain questions which can help him to detect errors in data collection in a systematic and in an organised way. For example in the area of age of respondents, specific life incidences must be referred to. This will give an illiterate respondent a focus to remember the age in which he was born etc. Also through lengthy conversations, an implicit contradictory statement can be discovered and corrected. In other words if formal questionnaires are used among illiterate folks, the researcher must remember to check his answers by supplementing data collection process with informal interviews to discover the mood of the situation, and to correct ambiguities and other irregularities.

This is the position of the researcher who goes to the field in a rural area. It represents the commitment on the part of the researcher to actively collect reliable and valid data. It means precisely that the researcher must be intimately acquainted with the aspirations of the people must understand the language of the people, the meaning of their life styles and must learn to view the social world of his respondents from the way they structure such experiences and view their experiences. It means that the researcher must be humble enough to mix with the people he is studying. This is so because being from a different social background he should be extremely careful not to impose his values and orientation on the social situation. Many of the research workers are usually recruited from the University population. The point to be remembered in this regard is that the observer is in a relatively different social position when he goes to the field. He must not act in any way different to reflect that he looks down upon the people he is observing. He must in all humility

learn to accept and to collect data meaningful in the social environment he finds himself.

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