CHAPTER V

THE PROCEDURE

Survey - meaning, purpose, characteristics and classification

Many research problems require systematic collection of data from populations or samples of populations through the use of personal interviews or other data-gathering devices. These studies are usually called surveys, especially when they are concerned with larger or widely dispersed groups of people. Normative survey deals with 'What is'. Its scope is very vast. It describes and interprets what exist at present. In a normative survey one is concerned with conditions and relationships that exist, practices that prevail, viewpoints that are held, procedures that are going on and influences that are being felt and trends that are developing. Thus educational survey is a research activity which aims at collecting data about various aspects of educational programmes and procedures.

George J. Mouly writes that 'No category of educational research is more widely used than the type known variously as the survey, the normative survey or descriptive research'.

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Pestinger has rightly remarked that 'The survey instrument is not specific method of any one social science discipline, and it is broadly applicable to problems in many fields. It is this capacity for wide application and broad coverage which gives the survey technique its great usefulness in the behavioural sciences. The survey technique is used only when the desired information cannot be obtained more easily and less expensively from other sources'.

Main characteristics of the survey method can be briefly summarised as follows:

1. The survey method gathers data from a relatively large number of cases at a particular time,
2. It is essentially cross sectional,
3. It is not concerned with the characteristics of the individuals,
4. It involves a clearly defined problem,
5. It involves definite objectives,
6. It requires expert and imaginative planning,
7. It requires careful analysis and interpretation of the data gathered,
8. It requires logical and skillful reporting of the finding,

9. Surveys vary greatly in complexity,
10. It does not seek to develop an organised body of scientific principles,
11. It provides information useful to the solution of local problems.

Surveys must do more than merely collection of data. They must interpret, synthesize, and integrate these data and point to their implications and inter-relationships. While the factfinding aspects of the survey are occasionally semi-clerical in nature, there is ample opportunity for the investigator to display ingenuity and scholarliness in his interpretation of the data and in his understanding of their strengths and weaknesses.

A survey is generally criticised on the ground that it does not test a hypothesis or relate to any underlying theory. However such criticism is irrelevant to many surveys eg. surveys of straightforward factual inquiries. According to C.A. Moser, 'In the narrower sense implying the testing of postulated relationship between two or more variables, the formation of hypothesis is irrelevant to and impossible for many fact collecting inquiries'.

Survey studies can be divided into many categories, depending on the basis and purpose of classification. Most

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common classification, is to separate them into 'Descriptive Studies' which are oriented toward the description of the present status of a given phenomenon and 'Analytical Studies' in which phenomena are analysed in terms of their basic components. However survey studies can also be classified according to the instruments and techniques used eg. questionnaire, interview, observation etc.

Present study 'An investigation into the secondary teacher education programme in Orissa' is a normative type of survey meant to investigate into the secondary teacher education programme on a critical and constructive basis.

Tools used

Research programme postulates sufficient reliable and valid facts. Such facts are obtained through a systematic procedure. Relevant data adequate in quantity and quality both, are to be collected. For collecting data for the study of any problem, various devices can be used. For a particular research programme, one needs certain instruments to gather new information. These instruments are called Tools. A research worker may use one or more of the tools in combination for collecting necessary data. Some important tools of research are:

1. Inquiry Forms: Questionnaire, schedule, checklist, rating scale, score-card, attitude scale etc.
2. Observation.
3. Interview
4. Sociometry.
5. Psychological Test: Intelligence, achievement, interest, inventory etc.

The investigator in order to collect relevant data, has used a few tools in the present study viz. Questionnaire, Interview and observation. He would like to present the theoretical background that was kept in mind while using these tools in order to collect data.

Questionnaire, Schedule and Interview guide

Inquiry forms are a group of data-collecting devices. The most important tool in this group is the questionnaire. The word questionnaire refers in general to a device for securing answers to questions by using a form which the respondent fills in himself. Schedule is the name usually applied to a set of questions which are asked and filled in by an interviewer in a face to face situation with another person. An interview guide, is a list of points which an interviewer must cover during the interview. Here flexibility is permitted as to the manner, language and order in which the investigator puts the questions.
Each of these three tools contains a set of related items i.e. a set of questions, logically interconnected to the main problem. The questionnaire and the schedule are based mainly on structured items, whereas the interview guide is based greatly on 'open-ended' or unstructured questions. Mrs. S. P. Sukhia and others have referred to a few characteristics of a good questionnaire which are listed below:

1. A good questionnaire deals with a significant topic and it is so considered by the respondent.
2. It seeks information which is not obtainable from other sources.
3. It is as short as possible, though comprehensive and clear enough for securing all the essential information.
4. It is attractive in appearance, neatly arranged and clearly printed.
5. It contains direction which are clear and complete. Each question deals with a single idea in unambiguous terms so that it is valid and reliable.
6. Items are arranged in categories to ensure easy and accurate responses.
7. It contains questions of an objective nature without any leading suggestions as to the responses desired.
3. It presents questions in a good order, proceeding from general to more specific responses.

9. It avoids annoying or embarrassing questions.

10. It is easy to tabulate and interpret, based on pre-constructed tabulation sheet and visualised final analysis of data.\(^4\)

G. Goode has said that 'The important thing to bear in mind is that every item in a questionnaire ideally constitutes a hypothesis, or part of a hypothesis in itself. That is the inclusion of every item should be defensible on the grounds that the researcher can logically expect the answer to be significant for his central problem. This obviously requires the fullest possible knowledge of the area in which he is working.'\(^5\)

While constructing questionnaires the investigator has tried to layout the logical implications of his problem and then draw upon his own experience and the literature for questions. He consulted colleagues, friends and acquaintances to get their thinking on the problem in hand. This process resulted in a larger number of questions and brought to level many omissions and ambiguities, and helped to give a shape to


a preliminary set of arranged questions. This preliminary draft was given to a few experts in the field for their opinion and comment. On the basis of such opinions the investigator could give a final shape to the questionnaires. The investigator has taken care of the following points while constructing these questionnaires:

1. Only significant items were included,
2. Responses expected were simple,
3. Responses were in Yes/No or check forms,
4. Questionnaires were made short and less time-consuming,
5. Questionnaires contained some items to obtain depth in response in order to avoid superficial results,
6. Questionnaires were meant to elicit definite responses,
7. Questionnaires were not meant to put respondent in any embarrassing situation. It was not meant to develop any kind of suspicion in the minds of respondents,
8. Questionnaires were not restrictive and narrow in scope,
9. Items were framed in a manner so that they may elicit true answer as far as possible,
10. Double negatives were avoided,
11. Double barrelled questions, were avoided,
12. Items were framed in a manner that they remain appropriate for all respondents.

Questionnaires were used to obtain the base data from different categories of respondents. The investigator in the present study has made use of three different kinds of questionnaires, one meant for each of the following:

1. The student-teachers of Teacher Education Institution,
2. The faculty members of the Teacher Education Institution,
3. The office of the Teacher Education Institution.

All these questionnaires contain two kinds of items - the closed form and the open-end or unstructured form. The closed form provides Yes/No, a short response or just a check from the list of suggested responses, whereas the open form calls for a free response in the respondent's own words. An example for both the forms can be cited here. Item number 7 of questionnaire 2, meant for faculty members indicates a closed form -

eg. Are you engaged in any private tuition? (Yes/No.)

Item No. 25 of the same questionnaire represents an open form eg. Give some concrete suggestions for improvement of internal assessment in your institution.
For all such open-ended questions a considerable amount of space was provided in the questionnaires.

Questionnaire number 1, meant for the use of offices of T.E.I.s contains items to give information related to, Nature of T.E.I.s, Governing Body, Facilities extended, working days, Programmes of T.E.I.s, Institutional Planning, Idea of comprehensive colleges, Input-Output, Financial position, Special features, Important landmarks and innovations etc. It contained 76 items in all. The second questionnaire was mainly to find out the views of faculty members towards teaching learning process and their problems. It contained 46 items in all both closed and open, related to Professional Commitment, Research and Innovative potential, opportunity for professional growth, Assessment policy, Teaching methods followed and suggestions for improvement of the programmes of T.E.I.s etc.

The third questionnaire meant for student teachers included items related to personal vita, Educational background, professional training, cocurricular activities, Alumni associations, Information bureau, problems and viewpoints related to different aspects of Teacher Education Programme. In all it contained 70 items having both the forms i.e. closed and open.

Different items of all these three questionnaires may
be grouped conveniently under the following categories:

A. Nature and organisation of T.E.I.s

Items 1 to 3 of questionnaire 1 were meant to give factual information about the T.E.I. Items 9 to 18 in the same questionnaire were related with the constitution and function of Governing Body of the T.E.I. Items 23 to 32 of the questionnaire 1 were concerned with the actual instructional days of the T.E.I.

B. Curriculum and methods of teaching

Item 8 of questionnaire 1 was meant for the medium of instruction and item 9 of questionnaire 1 for the tutorial system. Again items 27 to 30 of questionnaire 2 were meant for getting the details of tutorial work and the suggestions for the improvement. Item 11 to 14 of questionnaire were related to the flexibility and suitability of the curriculum. Items 10, 16 and 59 of questionnaire 1 were meant to find out whether Physical Education, Audiovisual education and community work were included in the curriculum or not. Item 18 of questionnaire 1 was meant to find out the number of method subjects opted by a student teacher, item 19 the medium of instruction in practising schools and item 20 to ascertain the number of lessons required for practice-teaching.
Items 23 to 31 of questionnaire number 1 were connected with Practice Teaching/Internship programme, demonstration lessons and supervision of practice teaching. In questionnaire number 2 meant for faculty members, items 31 to 41 were related with the existing system of practice teaching and ways and means to improve upon the same. Item 42 of questionnaire 2 was meant to find out the methods used in teaching theory papers in the T.E.I.s under investigation. Items 60 to 63 of questionnaire 1 were related with evaluation pattern followed in the teacher education institution. Items 31, 44, 45 and 46 of questionnaire 2 were connected with the system of evaluation of teaching practice, pass percentage and divisions obtained by a student-teacher. Item 18 of questionnaire 2 was designed to find out the place of 'Work Experience' in the curriculum and to ascertain the feasibility of implementing the activities of work experience. Item 19 to 26 of questionnaire 2 were meant to find out the existing position of internal assessment with a view to get concrete suggestions for improvement.

C. Student Teacher

Items 1 to 5 of questionnaire 3 were to collect the factual information along with academic and teaching background of a student-teacher. Item 6 of questionnaire 3 was to find out the procedure of selection of student teachers.
Items 46 to 59 of questionnaire 1 were related with selection criteria, sanctioned strength of student-teachers, enrolment, reservation of seats, output and wastage.

D. Faculty Members

Items 1 to 6 of questionnaire 2 were to collect details of information related with designation, nature of appointment and teaching experience etc. Items 10 and 11 of the same questionnaire were meant to find out the academic achievements and areas of specialisation of faculty members. Items 12 and 13 were made to find out the workload of a faculty member. Items 14 to 17 of the same questionnaire were concerned with professional growth of faculty members. Item 67 of questionnaire 1 was meant to get details of staffing pattern in a tabular form.

E. Facilities

Items 20 to 26 and 36 to 46 of the questionnaire 1 were related with various facilities extended to student-teachers and faculty members of T.E.I.s. The aim was to collect details of library, laboratory, hostel, quarters, medical facilities etc. Items 20 to 22 of questionnaire 3 were to find out the facilities available in practicing school. Items 32 to 42 of
questionnaire 3 were to get the details of other facilities such as common room, cycle stand, social, literary and cultural organisations etc. Items 50 to 58 of questionnaire 3 were to ascertain the existing position of cocurricular activities in the T.E.I.s. Items 64 to 70 were meant to get an information of such facilities like Information Bureau, Guidance Programme, Alumni Association etc. Items 74 and 75 of questionnaire 1 and items 8 and 9 of questionnaire 2 were to ascertain the teacher's associations found in T.E.I.s and their major activities.

F. Finance

Items 68 to 72 of questionnaire 1 were related with the financial position of T.E.I.s. The investigator tried to find out per capita expenditure after getting recurring and non-recurring expenditures of these T.E.I.s. Only recurring account was taken into consideration for such calculations. Items 42 to 49 of questionnaire 3 were concerned with the stipend/other financial aid of the student-teacher.

G. Problems and Trends

Item 19 of questionnaire 1 was to find out proper machinery to implement or tryout new practices and innovations in teacher-education. Item 34 of the same questionnaire was meant to get information of institutional plan of the T.E.I.s. Items
33 and 35 of the same questionnaire were to get a reaction to the idea of 'Comprehensive Colleges' and school complex' etc. Item 76 of the same questionnaire was designed to find out the important landmarks, innovations and publications etc. of the T.E.I.s.

Administration of the questionnaires

The investigator has made out three questionnaires in consultation with his colleagues and experts. All the three respondents i.e. student-teacher, faculty member and office superintendent were chosen as they possessed required information. In order to ensure better returns, the request for getting responses was made through the Principal (administrative head) of the T.E.I. To induce the respondent for the compliance, the investigator sent a courteous, carefully constructed covering letter explaining the purpose of the study. A vigorous follow up procedure was adopted to expedite the return of questionnaires. Courteous reminder, personal letters and personal visits were made to collect the questionnaires.

Sample

Other things being equal, the larger the sample, greater the precision and accuracy of the data it provides. Truly speaking sample size must be related to such questions as the nature of survey, the instruments to be used and the means of access to the
population as well as to the particular sampling design. In the present study the investigator has made efforts to get responses from the total population, concerned with the problem in hand. The table below shows the distribution and collection of questionnaires.

**TABLE No. 6**

**Showing collection of questionnaires**

<table>
<thead>
<tr>
<th>Questionnaire number</th>
<th>Number distributed</th>
<th>Number collected</th>
<th>Percentage of response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Office of T.E.I.s</td>
<td>6</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>2. Faculty Members</td>
<td>46</td>
<td>34</td>
<td>74</td>
</tr>
<tr>
<td>3. Student-teachers</td>
<td>893</td>
<td>766</td>
<td>86</td>
</tr>
</tbody>
</table>

**Interview**

The interview as a research tool is unique in the sense that it involves the collection of data through direct verbal interaction between individuals. Interview is a two way method which permits an exchange of ideas and information. Thus in an interview through an oral type of questionnaire or schedule the subject elicits needed information in a face to face situation. It is therefore based on a process of communication or interaction between the interviewer and the respondent or interviewee.
The investigator has kept the following fundamental points in mind while making preparation for the interview related with the research study in hand.

1. To decide category and number of persons to be interviewed.
2. To have a clear conception of the purpose and the information required.
3. To prepare a clear guide-line of the items that will bring out the desired information.
4. To decide the type of interview to be used i.e. structured or non-structured.
5. To have a well thoughtout method for recording the responses.
6. To fix up the time well in advance.

While executing an interview the investigator was friendly and courteous and tried to maintain a free atmosphere. He tried to listen patiently to all opinions without any surprise or disapproval. He wanted to keep the direction of the interview in his own hands and tried to avoid irrelevant conversation. The questions were repeated slowly when respondent gave an indication that he failed to understand. The investigator using abbreviations tried his level best to note down the responses elicited during the process of interview. He expressed his thanks in recognition of the respondent's generosity in sparing time and efforts.
The interviews were arranged with the Principal and two faculty members of each Teacher Education Institutions. The form used was Non-Directive i.e., the interview guide contained items of the open-ended form and allowed much freedom to the interviewee to talk freely about the problem under survey. A sample of interview-guide is given in the appendix.

Reliability of questionnaire data

The question of reliability of the questionnaire is often ignored partly because it is difficult to establish it with any degree of precision. Usual procedures for calculating the reliability were difficult to apply. Split-half reliability was out of question because of the relative independences and non-additivity of the component items. The Test-Re-Test method was the only feasible approach to establish the reliability of the questionnaire. Individuals who had answered the questionnaire were asked to take it again, and their answers were compared for consistency. The procedure is not taken as foolproof no doubt, since on the retest the respondent probably attempts to remember and duplicate his early responses. For this reason such evidence of consistency can hardly testify to the validity of the instrument and is a questionable measure of its reliability.
The Validation of Questionnaires

It must be kept in mind that although the whole instrument is oriented towards the whole problem, the questionnaire is comprised of relatively independent questions, each dealing with a specific aspect of the overall situation. Thus as a matter of fact, it is the validity of the items rather than the total instrument that is to be taken into consideration. The validation of a questionnaire uses the same principles and procedures as the validation of any instrument of testing.

The questionnaire must have content validity i.e. each question must be related to the topic under investigation, there must be an adequate coverage of the overall topic and there should be no ambiguity in questions.

The investigator made use an adequate approach to validate the questionnaires constructed for the study. He checked the agreement between responses elicited by the questionnaires with an external criterion. Factual questions such as age, educational background, pay-scale etc. were checked up against the records obtained from the T.E.I.s. With regard to the question of opinion and views, the investigator had to rely on an interview to see whether the responses of the questionnaire actually represent the respondents viewpoint.
Observation through personal visits

The investigator visited all the six Teacher Education Institutions under study to collect first-hand information related to the teacher education programme in general and the physical conditions of internal things in particular. Facilities extended to student-teachers and faculty members in shape of living accommodation, building, common room, play-ground, hostel, library, laboratory, staff quarters etc. were recorded by the investigator on a planned basis.

The following points were kept in mind for making observations:

1. To obtain prior knowledge what to observe.
2. To examine objectives of the study in hand to determine what to observe.
3. To devise a method of recording observations.
4. To establish various levels of categories or ratings to be used in observation.
5. To observe carefully and critically.

The investigator kept in mind the following essentials for making observations:

1. Good eye-sight.
2. Alertness.
3. Ability to discriminate.
4. Ability to evaluate.
5. Good physical condition.
6. Immediate recording.
7. Unbiased mind.
8. Emotional disinterest.

Analysis and interpretation of responses

Data obtained by the three questionnaires had been tabulated by making tallies against each item of the questionnaire. The data are expressed quantitatively on the basis of the percentage of responses for each item of the questionnaire. Refinement of results in tabular form in totals, percentages or averages (mean, median or mode) is sometimes required. Calculation of co-efficient of correlation may be done in order to suggest probability of relationship among data.

Narrative data on different items of the questionnaire are little hard to analyse. However the investigator tried to digout and record the descriptions contained in the information collected in shape of brief notes. Such responses were categorised and tabulated though the process was a little tedious one.

The interpretation of the data analysed and the formulation of conclusions was based on the percentage of responses received. The report of the investigation thus included this percentage.
Sufficient thought was given by the investigator to interpret the responses noted at the time of interview. He tried his level best to record the actual words of the respondent at the time of interview using common abbreviations. Recording of the responses was done on the spot while evaluation of responses was done later on when the interview was over. Through personal visits to all the six Teacher Education Institutions, the investigator made efforts to collect first-hand information with regard to physical facilities existing in these institutions. Observations were recorded on the spot and were interpreted later on.

Obstacles of the study

Questionnaire studies generally suffer by a relatively high percentage of non-returns. Sometimes an investigator does not like to report the percentage of returns perhaps because the inadequacies therein. The investigator was confronted with the same problem of non-returns in the initial stages of the study. However from a number of follow ups, he could overcome this obstacle, as is evident from the fact that minimum percentage of questionnaires received back was 74. In sending out follow up letters the investigator thought it wise to send a set of second copy of questionnaires.
The validity of questionnaire data depends in a crucial way on the ability and willingness of the respondent to provide the information requested. To get their whole-hearted co-operation was another difficulty experienced by the investigator. To hold interview, on a pre-planned basis, was quite a difficult task, specially with the Heads of Teacher Education Institutions, who happened to be very busy persons. Note taking during the interview was a problem for the investigator, with a fear of distortions and omissions in mind. However, such difficulties could be overcome by proper planning on the part of the investigator.