SCHOOL OF SCIENCE AND TECHNOLOGY
SENIOR FOCUS ELECTIVE
BSN 6125

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SCHOOL OF SCIENCE AND TECHNOLOGY
BANGLADESH OPEN UNIVERSITY
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Unit 1: An Overview of a Research Study

Lesson 1: Understanding the Course Objectives

1.1. Learning Objectives

On completion of this lesson you will be able to-

- state the course objectives
- describe what you are expected to do for each course objective
- state and explain which type of research will be the best for attainment of the objectives.

1.2. The Course Objectives

The objectives of this course require that the learners, at the end of the course, will have the ability-

1. To identify a problem in the chosen area for an in-depth study
2. To review the literature relevant to the problem
3. To develop objectives to deal with the problem
4. To conduct investigation of the problem
5. To develop a model or strategy for improvement in the area
6. To implement the planned strategy and evaluate the outcome
7. To submit the report with further suggestion.

1.3. Learner’s Responsibility for Each of the Course Objectives

If we try to capture the underlying meaning of the objectives, your task will be to identify a unique research problem in a chosen area for an in-depth study. The area may be chosen either by you, or it may be assigned by the faculty. Be clear that the study will be in-depth. So, you should be careful while choosing the problem or choosing the research type. Then, you have to review the literature relevant to the problem to ascertain the already available knowledge on the problem. After this exercise, you are expected to develop objectives and strategies for setting the direction to which you will drive your actual research. Following that you will actually conduct the investigation to conceptualize and interpret the basis of the problem. You will have still important task to do. The course expects to see you as a catalyzing agent for change in the chosen problem area, more specifically speaking, to cause some improvement with regard to the identified problem. You will have to begin by developing a model or strategy for improvement, then to implement the planned strategy and evaluate the outcome, and finally you will require writing a report on your total
interventions and outcome. The report will contain your suggestions for further improvement. Remember that you will have to complete the entire tasks within the given time limit.

1.4. The Appropriate Research Type to Meet Objectives of this Course

The course objectives specifically mention for an in-depth study, which also require that a model or strategy will be developed and implemented for improvement of situation identified in course of the study. As this lesson is a part of your academic requirement, it is obvious that the project goal is for a short or at least limited term. Selection of an appropriate study type is essential in this context so that all requirements can be met within the specific limited time. In this section, an introduction to the major research types will be given. This introduction will enable you to understand, which research type will be ideal for this study.

1.4.1. The Major Research Types: Quantitative, Qualitative and Mixed

The type of research can broadly be classified into three-

- Quantitative
- Qualitative
- Mixed.

Quantitative type of research dominated in most of the 20th century. Qualitative type came of age during the 1980s as an alternative to the quantitative method, as there was a feeling of dissatisfaction about the inability of quantitative method to read the perceptions or emotional aspects of the people. A third type called mixed method incorporating both quantitative and qualitative types, although launched long ago, is getting strong footing recently.

In quantitative study, only quantitative data are collected using closed ended questions or checklists. This type of research best suites for making population estimate, such as, growth rate, mortality rate, age-sex pattern, disease profile, economic profile, etc. Sample size is an important parameter so that the sample represents the whole population. Information is collected using structured questionnaire or interview schedule. Flexibility is very limited.

In qualitative study, the information provider (the informant) is interviewed extensively to find out the root cause of the problem. The interview moves through questions arisen out of the responses of the informant. The role of pre-designed questionnaire is minimal. It is the most flexible method, and the moderator or interviewer changes his/her directions of questioning depending on the situation. The idea is to reach the deeper insight of the problem. In some qualitative research
method, people’s participation comes as a natural outcome of the process, which can be used as an excellent social improvement tool. This type of qualitative research is called participatory action research (PAR).

A third method is a mixed study design, which incorporates both quantitative and qualitative techniques together, either in the same study phase or in separate phases. The following table describes the characteristics of the three types of researches in more detail:

Table-1: Characteristics of quantitative, qualitative and mixed type of research

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Quantitative</th>
<th>Qualitative</th>
<th>Mixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific method</td>
<td>Deductive or top down. The researcher formulates a hypothesis. Then s/he collects data to test the hypothesis</td>
<td>Inductive or bottom up. The researcher first collects data and then formulates new hypothesis or theory from the data</td>
<td>Both deductive and inductive</td>
</tr>
<tr>
<td>View about human behavior</td>
<td>Regular and predictable</td>
<td>Fluid, dynamic, situational, contextual and personal</td>
<td>Somewhat predictable</td>
</tr>
<tr>
<td>Focus</td>
<td>Narrow angle lens</td>
<td>Wide or deep angle lens</td>
<td>Multiple</td>
</tr>
<tr>
<td>Nature of observation</td>
<td>Studies behavior in controlled conditions</td>
<td>Studies behavior in natural conditions</td>
<td>Studies behavior in both conditions</td>
</tr>
<tr>
<td>Form of data collected</td>
<td>Quantitative data on precise measurement scale using primarily closed ended items</td>
<td>Qualitative data using in-depth interviews, open ended questions, field notes, observation, etc. The researcher is the primary data collection instrument</td>
<td>Both forms</td>
</tr>
<tr>
<td>Nature of data</td>
<td>Variables</td>
<td>Words, images, categories</td>
<td>Both</td>
</tr>
<tr>
<td>Data analysis</td>
<td>Statistical relationships</td>
<td>Patterns, themes, holistic features</td>
<td>Mixtures</td>
</tr>
<tr>
<td>Results</td>
<td>Generalization of findings</td>
<td>Representation of inside views</td>
<td>Both</td>
</tr>
<tr>
<td>Form of report</td>
<td>Statistical</td>
<td>Narrative with contextual description</td>
<td>Mixture</td>
</tr>
</tbody>
</table>
1.4.2. In-Depth Study

The term “in-depth study” may be interpreted differently in quantitative and qualitative study. In quantitative study, the term carries a sense of collecting detail information on a particular problem. Detail information refers to inclusion of many variables relevant to the problem. But, whenever the problem relates to the social, cultural or behavioral aspects of the people, quantitative research can only identify and quantify the problem; but can not investigate into the very roots of the problem. There is no way that community people will build a feeling of ownership on the investigation process because of absence of emotional bondage between the interviewer and respondents in the process of information collection. On the other hand, the main strength of qualitative research is the building of emotional relationship between the interviewer and the respondents. This opportunity moves both of the parties towards a common goal of solving the problem. Sample size is not a major issue here; rather exploring both sides of a view gets the most important consideration to arrive at a rational judgment.

1.4.3. Qualitative Participatory Action Research

Qualitative research is in fact a popular research domain in social sciences. Recently qualitative research emphasizes more on participatory research or participatory community research. This type of research is conducted as a partnership between traditionally trained researchers and lay participants in a community. Participatory research enables people to find practical answers about community needs. People get better insights about what steps are needed and what policies to be taken to benefit their community. The study population acquires two important things: (a) a partnering voice in the way the study being carried out and (b) the understanding of research methodology inspiring them to play collaborative roles. Virtually the participatory research has the in-built strength to recognize the community as a social and cultural entity, which ensures active engagement and influence of the community members in all aspects of the research process. This happens through three stages: a) investigation, b) learning, and c) action. It is the third component that makes participatory research to call "action research."

It is believed that the knowledge produced by traditional research may be published, disseminated, shared, and even debated, but it is not always acted upon. Therefore, participatory research has following advantages:

a. Creates a platform for community involvement in partnerships sustainable throughout the research.

b. Builds, and leaves behind, skills, capacities, infrastructure in the community and relationships between the researcher and community.
c. Makes solutions to one or more community problems using proactive approaches with accurate and relevant information.

d. Undertakes culturally sensitive research using people who recognize that diversity exists in a community and there is a need to use appropriate and trust-building communication.

From the above discussion, it appears that the type of in-depth study, which this course seeks, will be best met by qualitative participatory action research. In the next sections, you will be guided through step by step to choose, design and implement such a research.
1.5. Exercise

1.5.1. Multiple choice questions

1. The objective of the research is to
   a. identify a problem
   b. give a probable solution
   c. analyze the situation
   d. all above.

2. Which one is quantitative research?
   a. growth rate
   b. population estimation
   c. mortality rate
   d. none of the above.

1.5.2. True/False

a. Quantitative research best suits for making population estimation.
   b. New hypothesis or theory is formulated from the data in qualitative research.
   c. Qualitative research is a popular research domain in social sciences.

1.5.3. Fill in the blanks

a. After fixing research topic, literature is reviewed .................... to the problem.
   b. Mainly quantitative research was done in .................... century.
   c. Child mortality rate can be found out using .................... research.
   d. Both qualitative and quantities techniques are used in .................... study.

1.5.4. Match column A with column B

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Objectives is developed to deal with</td>
<td>i. quantitative study</td>
</tr>
<tr>
<td>b. Age-sex pattern of a group can be known using</td>
<td>ii. quantitative study</td>
</tr>
<tr>
<td>c. Behavior is studied in controlled condition</td>
<td>iii. the problem</td>
</tr>
<tr>
<td>d. In quantitative study data is treated as</td>
<td>iv. variable</td>
</tr>
</tbody>
</table>
1.5.5. **Short questions**

1. Write down the sequence of a research.
2. What are the learner’s responsibilities in research objectives?
3. Discuss about different types of research.
4. Write down the characteristics of different researches.
5. Write short notes on in-depth study
Lesson 2: Identification of a Problem in the Chosen Area for in-Depth Study

2.1. Learning objectives

On completion of this lesson, you will be able to-

- state and explain the term “study problem”
- identify few study problems in the chosen area
- define a problem from the broader list for ultimate in-depth study.

2.2. What is a Study Problem?

For doing a scientific study, the researcher first needs to choose a suitable problem to find answer to it. You may be given a pre-defined broader problem area to investigate on. Alternately, you may need to find first the broader problem area. If we look around, we will be surprised to see many problems. Reasons for some of the problems are already known, while for other problems the reasons are still hidden. In some cases we don’t know the cause; we may do some assumptions about why the problems are occurring. But, we do not know exactly whether our assumptions are true. A study can find the answer in this situation.

For a problem with known reason, there is no need to do a study. Let us consider a situation. The number of diarrhea cases attending the hospital diarrhea wards has been increased compared to the previous month. Exploring the possible causes, it reveals that monsoon has been started. As it is usual to get more diarrhea cases during monsoon, it is clear why more diarrhea cases are attending the hospital diarrhea wards. This finding excludes the need for doing a study. Therefore, the problem in this situation is not researchable.

Study is done when the answer to the problem is not known. Imagine that the diarrhea wards in a hospital suddenly starts receiving more diarrhea cases during a non-monsoon period. Many people are reporting diarrhea at about the same period. Nobody can give a clue to the cause. All the sufferers have reported to drink from the tube well water like before. There is no unusual food intake history or history of social function, where large number of people took food from common source. The strange thing is that not all persons from the same family have shown affliction. Diarrhea cases have been shown to localize around a community bazar. The problem is definitely researchable because nobody knows the exact reason for diarrhea.

Let us know how the situation was ended up. The problem was continuing. So, the health authority conducted a study in the affected communities. Three-day food intake history prior to diarrhea of the sufferers was collected. Similar data from a group of healthy people
was also collected. The results showed that all the sufferers used a common commercial drink bought from the local bazar, while the non-sufferers did not use that drink. As the females less usually go to market, number of females among the sufferers was very few. The authority forced to withdraw the culprit drink from the bazar. This public health measure caused an immediate improvement of the situation.

From the above discussion, we now understand that a problem, of which we do not know the reason exactly, is researchable. Such a problem is called a “research problem”.

The research problem, given in the above example, can be answered by quantitative research. But, for the social and behavioral problems, which need in-depth exploration of the situation to find out the cause, we will need to do qualitative study. “Is divorce in community A is higher than in community B?” is a research problem. You can compare the divorce rates over a certain period of time between the two communities to find the answer, and this is a simple quantitative estimate. Suppose that you have found higher divorce rate in Community A than in Community B. “Why is that difference?” This is another research problem. You will agree that the divorcee couples will be the best source of information to this question. It is unlikely that the reason for divorce in one divorcee couple will be exactly similar to that in another divorcee couple. A common set of questions with pre-printed answer options will not be adequate to find the answers. Each member of the divorcee couple will need extensive interactive interviews to explore what situation brought him/her to face divorce. These extensive discussions or observations are only possible in qualitative studies. Therefore, like the qualitative study itself, a research problem for qualitative study also has special characteristics.

2.3. Identifying few Research Problems in the Chosen Area for in-Depth Study

Ideas for research or research problems originate from many sources, such as, everyday life, practical issues, and past research.

Everyday life is a common source of research ideas. Based on a questioning and inquisitive approach, you can draw from your experiences and come up with many research topics. For example, think about the exclusive breast-feeding practices in your locality. Does the community have universal access to and use of sanitary latrines? Are all the rural women getting adequate antenatal care during their pregnancy? Is there any alternate approach for providing antenatal care, which the villagers will accept and will be feasible to implement?

Practical issues can be a source of research ideas. What are some current problems facing health services in your area (e.g., health
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administrators, health workers, nursing staff, patients)? Which of the problems are suitable for investigation?

One can get excellent research idea from past research. A great deal of research has already been conducted on a multitude of topics, and, importantly, research usually generates more questions than it answers. In published articles, the authors give suggestions for further research. In review articles, future direction of the research may be available. These suggestions are frequently quite valid and good sources of research ideas. Theses and dissertations often have a section devoted to future research. For students planning for writing a thesis or dissertation, the use of past research is extremely helpful.

While the above sources may be good for finding few interesting research problems, it is particularly important in case of participatory action research to select the research problem involving the people with whom or for whom the research is being conducted. Construct some ideas from literatures and extend those ideas using your imaginative power. Then, visit the actual place, talk to local people, observe the local situation and use the techniques of qualitative research mentioned throughout this book to select the problem. Note that unless you are instructed to do research on particular topic; try not to keep yourself confined within particular problem boundary. Rather allow the people to tell you about their particular pressing problem for which they need a solution on priority basis. If feasibility is not a barrier, go ahead with them for carrying out the study they need.

2.3.1. How to Involve People to Find Research Problems

- **Finding potential people to help you in problem identification**

Make up your mind about your place of study. Is the population constitutes a community or a particular group? Are they all literate? Do you know them? Do they know you? These answers will determine the way how you should involve them in problem identification.

As a general approach, you can visit the place; walk around; discuss informally with few of the people you meet during walking. Talk about what problems they are facing currently; which things they like and which things they don’t like. What are the things, which need solution on priority basis? Are the problems feasible to solve with little community or group effort and if so how? Whom the people you should talk if you are interested to initiate such a community or group effort? Take note of the issues and relevant points. If there are physical evidences, for instance, unprotected water sources, bottle-feeding the babies, unhygienic latrine, etc., you can take chance of taking photographs. But, take care to adhere to ethics, viz. taking permission from the owner or person concerned. Some of the people may also help you by giving or referring documentary evidences. Pick the problems you are convinced about their merits. During your talk to local people,
try to find some who may be helpful in deciding the research topic. Invite them in a subsequent meeting to further discuss the issues. Contact with the influential people in the area, such as, people’s representatives, officials, representatives of NGOs, local clubs, senior citizens, religious leaders, teachers, traditional doctors, etc. to discuss about your idea.

One of the important things to keep in mind is: lay people in the community or group would not understand scientific meaning and requirements for an in-depth study. Although methodological aspect is not so strict in qualitative study, yet be careful as well as tactful, to keep a fair balance during problem selection, between community expectation and scientific approach. Refine and consolidate few of the appropriate ideas gathered in field exercises to discuss in the community meeting.

2.3.2. Community Meeting for Selecting a Research Problem for Study

Fix a date, time and venue for holding a community meeting. Invite the people whom decided to nominate for this meeting. Keep the number of participants to moderate, say not exceeding 12. Give reminder for attending the meeting re-emphasizing its importance. Arrive at the meeting venue well ahead and make sure that every preparation has been completed. Greet all attendees warmly as they arrive. Welcome everybody to start the meeting. Try to use easy to understand local language. Briefly describe the background. Mention what are the problems they have suggested during the preliminary informal discussions. It would be nice if you could prepare some selected photographs and/or pictures for presenting the topic to the meeting. If so, fix them on the wall or on a white board. If the audience is literate, you can use flip chart as alternative. Explain to them why you have chosen these few topics and not others. Ask the participants to know whether any or other of them have different idea. If so, request them to explain, and if justified include them in the problem list.

Now start discussion problem by problem and facilitate the participants in a way so that three main questions are resolved: Is the problem important than others? Is it feasible to undertake the research? Is it ethically acceptable to undertake the research?

**Hints**

To verify importance: Does the problem have wider influence? Is the problem more serious than other for which the people want immediate solution?

To verify feasibility: Is there sufficient amount of money, resource, time or expertise to conduct the study? Will the logistics that would be required be available? Is the necessary equipment is available? Are the community or group members willing to participate and collaborate?
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To verify ethical acceptability: Will the research directly or indirectly cause physical or financial loss to people? Will the work breach the cultural, religious and personal rights or privacy of the respondents?

Come to a consensus on only problem to conduct investigation on. Express your appreciation for their contribution and for a job really done very well. Tell them that you desire to invite them again to make the work to proceed further. Also mention that you hope to get their kind cooperation always.

Caution: Small is Beautiful

It is not a practical idea to be too much enthusiastic about choosing the research problem. Begin with small project with few feasible objectives to taste and learn the pleasure of qualitative participatory action research. Even a small qualitative study may require lot of time and energy to complete. Without much experience in qualitative research, it will be unwise to start big project.
2.4. Exercise

2.4.1. Fill in the blanks

a. At first researcher should choose researchable ..................
b. Study is done when the answer to the ................... is not known.
c. Every day life is a common source of .................. ideas.
d. One can get excellent research idea from ................ research.

2.4.2. True/False

a. Researcher, at first, chooses a suitable problem and then fined answer to it.
b. Problem with known reason does not need to study.
c. In research problem, we know the exact reason of an event.
d. A common source of ideas exists around us.

2.4.3. Tick (✓) the correct answer

i. From which sources, research problem originate?
   a. everyday life
   b. practical
   c. past research
   d. all above.

ii. What type of direction we get from review an article
   a. future direction
   b. present direction
   c. past direction
   d. both a & c.

2.4.4. Match column A with column B

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Practical issues can be a source of</td>
<td>i. complete</td>
</tr>
<tr>
<td>b. Excellent research idea can be got from</td>
<td>ii. dissertation</td>
</tr>
<tr>
<td>c. Past research is very helpful for writing</td>
<td>iii. past research</td>
</tr>
<tr>
<td>d. Qualitative study may require much time and energy to</td>
<td>iv. research ideas</td>
</tr>
</tbody>
</table>

2.4.5. Short questions

1. What is a study problem?
2. Give an example of identifying a researchable problem.
3. How would you motivate people to find a research problem?
Lesson 3: Literature Review

3.1. Learning objectives

On completion of this lesson, you will be able to-

- state the need for literature review
- indicate the source of information for literature review
- find out relevant literature to the research problem
- search literature using computer-based CD-ROM or Internet
- extract required information from literature.

3.2. Need for Reviewing Literature

In research, the term “literature review” is used to mean reading and consulting across the authentic and relevant journal articles, books, government documents or newspapers articles, etc. Literature review helps to understand what is the existing knowledge and gap with regard to the research work or scientific writing. The researcher gets appropriate information for every step of research work, viz. (a) finding a research problem; (b) background information including statistical evidences; (c) justification for the research work; (d) right kind of methodology and tools; (e) type of data to be collected; (f) data analysis method; (g) findings of other studies to compare results and explain reasons for dissimilarities, if any; (h) conclusions, inferences and recommendations. Therefore, literature review should begin before the research topic has been finalized and may continue until the writing of the research report is completed. The scientific review articles compile as many articles as possible on a particular problem and present the information in comprehensive format for updating the knowledge of the interested scientists and professionals. Literature review demonstrates one’s skill in two areas: ability of information seeking from a set of useful articles and books; and ability to apply judgment to identify unbiased and valid studies.

3.3. Literature Review Source

There are many sources of information for literature review. It is the researcher’s responsibility to identify the right information source depending upon the convenience and usefulness. However, it is often required to use more than one source of information. The advent of Internet- and CD-ROM-based literature search has made life easier. The researcher should learn to make the best use of these new technologies. Below is given brief description of different sources.

**Journal Articles:** These are good especially for up-to-date information. It is a good practice to try to consult recently carried out work from reputed journals. The academic libraries of research organizations/institutes and Internet are the best sources of journal articles.
Books: Books tend to be less up-to-date as they take longer for a book to be published than for a journal article. But, for explanation of established theories, textbooks can be a good source. Most academic libraries in health institutes provide commonly used medical and nursing textbooks.

Conference Proceedings: These can be useful in finding information on the latest research, or on research that has not been published. They are also helpful in getting information of the researchers who are currently involved in work in your research area with whom you may want to contact. Libraries of research organizations, respective professional organizations and Internet are the best sources.

Government/Corporate Reports: Many government departments and corporations’ commission carry out research. Their published findings can provide a useful source of information, depending on the researcher’s field of study. The reports may be available with respective government departments/corporations or from Internet.

Newspapers: Newspapers are generally intended for a general audience. So, the information they provide is of very limited use. However, newspapers often provide information about recent trends, discoveries or changes, e.g. announcing changes in government policy, etc. Many newspapers maintain archives on the Internet, which can serve as sources. The researcher may collect respective issue(s) of the newspaper if he finds interesting and relevant article(s) during his/her research work.

Theses and Dissertations: These can be useful sources of information. However, they can be difficult to obtain since they are not published, and are generally only available from the library shelves. The students carrying out the research may not be experienced researchers and therefore their findings need careful appraisal.

Internet: The Internet is the fastest-growing source of information. More and more electronic journals (e-journals) are appearing on the Internet. There are also Internet-based health literature storehouses called PubMed, POPLINE, etc., and also several archives for qualitative research. The Internet also provides tons of Information for general public, which may not be suitable for use as scientific reference.

CD-ROMs: At the moment, specialized CD-ROMs, such as, MEDLINE (PubMed), POPLINE, etc. are available containing detailed information about academic research for use in academic libraries. Like Internet, these tools are also very efficient in searching research information.

Magazines: Popular magazines intended for a general audience are unlikely to be useful in providing useful research information. But,
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regarding new discoveries, policies, etc. these can act as supporting evidences.

A useful tip for the qualitative researcher: You should consult sufficient number of articles based on qualitative study.

3.4. Effective Searching the Literatures

Plan well ahead about where to go for searching the required literatures. The suitable place may vary depending upon your subject matter. An understanding of the type of information available in different sources may appear very useful. You should discuss with your tutor, one or more researchers whom you know well or your friends currently doing research. They may guide you in this regard. Professional staff in academic libraries may also provide good help. For getting information from an academic library, first try to get an idea of the way the journals, books, newspapers are arranged and displayed, and how to quickly find the type of information you are looking for.

3.5. Literature Search using Computer-based CD-ROM or Internet

In the developing country context, Internet can be the most convenient source if one has access to it. A good alternate place can be where there is CD-ROM based MEDLINE (PubMed) or POPLINE search service. Truly speaking, the stocks for qualitative studies in these sources even on the Internet are yet not as huge as for quantitative studies. In this context, you should point your Internet browsers, such as, Google, Yahoo, etc. to find some archives of qualitative research papers and documents. When such an archive is found, bookmark the page in your browser. In case of limited skill in Internet browsing, take help of your colleagues to show to you how to do it.

Some knowledge on using keywords for searching information in computer-based source (Internet or CD-ROM) is essential. Key words are few important words which are likely to be used in the content you are searching. For example, if you are interested to see articles on water and sanitation practice in Bangladesh, all such articles are most likely to have words like “water”, “sanitation”, “practice” and “Bangladesh”. These words are called keywords.
Fig. 1: Screen image of Google Search Engine

Fig. 2: Screen image of PubMed Search Engine

**Tips for computer-based search:** In all computer-based literature searches, the computer program displays on the computer screen one or more text boxes for typing search criteria, such as, keywords, period (from-to), language, author name, journal name, etc. Fill up these texts
boxes intelligently. Be wise in using keywords and use linking words like AND, OR, NOT, etc. in between keywords. For example, type the above mentioned three keywords in this way: water AND sanitation AND practice AND Bangladesh. The Internet search engines are now intelligent enough and they don’t need to use AND linking word any more. Instead, a space character between two successive words makes the search engines to understand virtual presence of “AND” as a linking word in between. What will happen, if you use only “water sanitation”? All the contents having these two words will be displayed. Adding another keyword “practice” will narrow down search to information on “Water and sanitation practice”. Adding “Bangladesh” with them will further narrow down the searches to “Water and sanitation practice in Bangladesh”. For getting articles on participatory or participatory action research, you should also use “participatory” or “participatory action research” in addition to above key words. If you want to search methodologies for similar research work done in Bangladesh, you should use keywords “water”, “sanitation”, “practice”, “Bangladesh”, “participatory”, “action”, “research” and “methodology”. When to use OR? Suppose we want information on
“water and sanitation practices in any of these two countries: Bangladesh or in India. Then, we will type: water sanitation practice Bangladesh OR India. The computer screen will display information having words “water” and “sanitation” and any of the two words “Bangladesh” and “India”. When to use NOT? If we use, key words “water”, “sanitation” and “Bangladesh”, the computer screen will display information having all these three words. But, some articles may, in addition, have information on other countries. If we type: water sanitation Bangladesh NOT India, the computer screen will display information having all of the first three words but will not display any article having the word “India”.

We can further narrow down or specify your search. There may be provision for using more advanced search criteria, such as, year or period, language, author name, journal name, etc. in the text boxes of some search engines (Figure-3). Using appropriate information in one or more of the boxes, we can limit our searches to specific needs. Use of at least one keyword is mandatory; but use of advanced search criteria is optional. Finally clicking on the “Search” or “Go” or “OK” (whichever available) button will display the information we are looking for.

There is another way to further narrow down search to specific need. You can use quotation marks on both side of a phrase. For example, if you use “Breast feeding practices in Bangladesh”, then article having this exact phrase, if sources are available on this topic on the Internet will be displayed. The difference of using quote vs. unquote is: in the former, the browser will take care to see articles with exact phrase, but in the later, the search engine will not see exact phrasing rather the presence of the key words in any position.

3.6. Extracting Required Information

In literature search, either on the Internet or in CD-ROM or in journal/book, etc., we come across tons of information that meet our search criteria. But, that does not mean that all of those will fulfill the specific needs. So, don’t try to read everything. Do a quick visual scan and decide whether you need the information. If not, just ignore it and pass on to the next. When you find one that you need, you may wish to save it in a computer disk or pen drive. It is not a good idea to print whatever you get. This will only waste money. Take the disk or pen drive with the saved files to your home or workplace and use a computer to summarize the information as per your specific need. Always keep full bibliographic (reference) information in your notes. Otherwise you will be in great trouble to refer to the source of information.
An Overview of a Research Study

3.7. Exercise

3.7.1. Fill in the blanks

a. Literature review should begin before ................. topic selection.
b. Literature review demonstrates one’s skill in ................. areas.
c. The advent of internet and CD-ROM- has made ................. easier.
d. Magazines may be used as supporting .................

3.7.2. True/False

a. Journal articles are not good for up-to-date information.
b. In research purpose, newspapers information is used limitedly.
c. The internet is the fastest-growing sources of information.
d. Published articles are presented in proceedings.

3.7.3. Tick (√) the correct answer

1. Literature review means collection of necessary information from
   a. journal articles
   b. books
   c. newspapers
   d. all above.

2. Which one is good for established theories?
   a. journal articles
   b. text books
   c. conference proceedings
   d. review articles.

3. Which key words more perfect for searching specific information on internet?
   a. practice
   b. sanitation
   c. sanitation practice
   d. sanitation practice in Bangladesh.

3.7.4. Match column A with column B

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Many newspapers maintain achieves</td>
<td>i. disk or pen drive</td>
</tr>
<tr>
<td>b. Students researcher may not be</td>
<td>ii. important words</td>
</tr>
<tr>
<td>c. Key words are few</td>
<td>iii. experienced researchers</td>
</tr>
<tr>
<td>d. Down loaded information can be saved</td>
<td>iv. on the internet</td>
</tr>
<tr>
<td>in a computer</td>
<td></td>
</tr>
</tbody>
</table>

School of Science and Technology 20
3.7.5. **Short questions**

1. Why literature review is necessary?
2. Write down the sources of literature review?
3. Describe Internet and CD-ROM for literature information.
Lesson 4: Developing Objectives and Strategies to Deal with the Problem

4.1. Learning Objectives

On completion of this lesson, you will be able to-

- know how to develop objectives
- deal with the specific problem
- plan strategies for attainment objectives.

4.2. How to Develop Objectives

Research is a scientific approach and science is not vague. So, in research it must be told clearly and concisely what the researcher wants to see. Alternatively speaking, s/he needs to set objectives.

Objectives are usually written in two forms: general and specific objective(s).

General objective describes the overall goal of the study. For example, if you undertake a study to know the water and sanitation-related hygiene practices in a community, you may fix the general objective something like this:

“To know the existing water and sanitation-related hygiene practices of the people of community X in their cultural, social, economic and physical context”.

Specific objectives are precise statements about what the study wants to seek. A mnemonic “SMAART” is often used to suggest the qualifications of specific objectives, where S stands for specific, M for measurable, A for actionable, A for achievable, R for reliable and T for time bound. Therefore, the specific objectives should be very much specific, and every one should get the same message by reading them. If the study is a quantitative one, the work should be measurable. But, in qualitative study exact quantification of the data is not necessary; rather the study collects information on internal values, beliefs, perceptions or behavior of people; however, a tentative idea about the quantity is often given, viz. none, some, many, most, all, etc. The word “actionable” emphasizes to ensure that the work is realistic, i.e., possible to implement. The target of the work should also be realistic, i.e., achievable. The word “reliable” emphasizes that the information gathered should be reliable as far as possible, i.e. adequate quality assurance should be observed in each step so that the results of the study can be relied on. Finally, the work should be completed in definite time period (time bound).
Let us fix the specific objectives of the study titled “Water and sanitation-related hygiene practices among people of community X”.

**Specific Objectives**

(related to water)

1. To find out the location of the water sources of the community
2. To conduct assessment of the hygienic condition of the water sources
3. To find out how people handle and use water
4. To find out the underlying factors or reasons in relation to specific practices
5. To know about the possible interventions to avert people from negative practices.

(related to sanitation)

1. To find out the sanitation facilities available in the community
2. To know about the hygienic practices observed by people for disposal of children's stool and hand washing after (a) defecation, (b) cleaning children's bottoms, and (c) handling children's feces
3. To assess the benefits, use and maintenance of the latrines
4. To know about the possible interventions to improve the sanitary practices.

**More Examples**

Research title: Health seeking behavior of people of community Y.

**General objectives:**

To see the health seeking behavior of people of community Y.

**Specific Objectives:**

a. To understand the pattern of common illness suffered by the community people;

b. To know where the people go for seeking treatment for those illness;

c. To understand the factors related to such health seeking behavior;

d. To understand the possible interventions that may improve the health seeking behavior.
4.3. Developing objectives to deal with the specific problem identified in lesson 2

So far you have completed the following tasks-

- Identified your research problem under lesson 2;
- Refined your idea through the literature review under lesson 3; and
- Gathered, in this lesson, ideas on how to develop general and specific objectives.

Now, you should be able to develop your objectives specific to your research problem. Nobody can be perfect at the first effort. So, don’t be frustrated. Write down your ideas. Critically think. Imagine. Refresh your ideas. Rewrite. Focus your attention to the actual situation. Consider feasibility. Redefine your objectives. Repeat your effort until you are satisfied.

The researcher’s work becomes easier in a participatory action research. This happens because participatory research emphasized on taking approval of the study participants in each major step. Do you remember what you promised to the participants of your first formal meeting? The meeting was held for problem identification. You promised for holding more meetings with them to make the work proceed further. Now it is the first opportunity to keep the promise.

Convene the community meeting. Present your proposal for objectives in appropriate format. Explain what criteria a specific objective should fulfill. Show how your proposed objectives meet the criteria. Ask the participants to share if any one or other has different or new view. Facilitate them to brainstorm. Encourage the inactive and/or shy members to also participate in the discussion. Manage the discussion tactfully so that unimportant issues are discarded. Finally come to consensus to keeping the more focused objectives. Celebrate the success by big clubs.

**Before Concluding the Meeting**

Setting the study objectives is no doubt a great success. But, this brings in front of you the next but the most important responsibility- is for preparing the strategy, or in other word, preparing the methodology to implement the objectives.

A big group like this community meeting would not be good for this job. Rather a small group in several intensive brain-storming sessions will best accomplish this job. Propose this idea to the meeting; request them to help you by proposing some names who will volunteer to join your study team and work until the study is completed. Enlist the name of the volunteers for group formation and conclude the meeting by expressing your sincere thanks to everybody.
4.4. Development of Strategies for Attainment of the Objectives

Mobilize the new group to facilitate brainstorming for the strategy development. For this, first build the group spirit amongst its members. Convene a group meeting. Arrange some light snacks and tea to create a cheerful and intimate environment. Congratulate them. Remind them about the dignity which they already achieved through getting nominations of the community members for being in this group. Give an overview of the activities and the outcomes that are being expected from the study. Explain the importance of their job and pride associated with the successful completion of the task.

Then, set out some group rules as follows-

a. Nobody will leave the group
b. Always maintain respect to each other
c. Do not do anything that may create negative impression about the group or of the study
d. Meet regularly to exchange views, share experiences and take new assignment
e. Allow every member to speak and be heard
f. Be on time in the scheduled events and do the assignment properly
g. Try to enjoy the work
h. Sustain the group.

When the group is set up, make sure for the group members to meet and discuss frequently. Start designing the study methodology. However, at the outset give them some basic ideas about research, particularly about participatory action research.

Take chance to go out and see, smell, touch, and feel the place of study. Keep one or more group members with you during these tours. Try to capture some ideas on how different things viz. poverty, rain, sanitation, food intake, nutritional status, diseases, etc. change with seasons.

Sit with your group members frequently and try to construct the strategy for data collection by answering following critical questions-

1. What type of information to be collected?
2. What will be the sampling process: geographic boundary, study population (individual, family, group, community, or inanimate objects), sample size, inclusion or exclusion criteria of respondent or object, etc.?
3. What will be the method of data collection?
An Overview of a Research Study

4. What measures will be taken for quality control to ensure the trustworthiness of the findings?
5. How the ethical issues and matters of confidentiality will be dealt with?
6. What will be the time frame, phasing (if any) and logistic arrangements?

4.4.1. Type of Information to be Collected

Re-visit the examples of specific objectives for water and hygienic practice study given in section 4.2. What questions will you need to ask to the respondents or to observe yourself to find the information? Let’s take the example of first specific objective. It opts to find out the location of water sources in the community, which may be residents’ homes, schools, mosques, temples, clinic, play ground, market, etc. The type of water sources may be tube well, brick well, non-brick well, pond, river, supply water, etc. You may also need to collect information such as name, age, sex, education level, income, housing condition, etc. of the respondents.

We may imagine here some kind of information that can be collected in a water and sanitation practice community study:

**Location of Water Sources**
- Mapping of the drinking/cooking water sources (tube well, well, pond, river) in the community
- Distance of water sources from the users
- Difficulties for collecting drinking/cooking water

**Hygienic Condition of the Water Sources**
- Protection of water sources
- Location of water sources with relation to latrines, defecation sites (human, animal), and contaminated water sites
- Maintenance of water sources
- Use of water at sources
- Other activities at water sources

**Handling and use of Water**
- Methods and utensils for water collection
- Water treatment process at the source
- Transportation method of water
- Water handling in the home
- Water storage and treatment in the home
- Water use (and reuse) in the home
- Washing clothes
- Bathing

**Hygienic Practices**

- Location and type of defecation sites
- Maintenance of latrines (structure and cleanliness)
- Disposal of children's feces
- Hand-washing after cleaning children's bottoms, handling children's feces and defecation
- Use of cleansing materials for hand washing

**From Example to Practice**

Following the example given above, make a list of the information that you may need to collect for your particular study problem and objectives. Qualitative study is flexible. It does not require preparing the exhaustive list before making questionnaire. New issues may arise at any stage during data collection. You are at liberty to include those issues immediately. The nature of qualitative study is exploratory and in-depth. The investigator will not see whether or not a question is included in the data collection form; rather s/he will decide on the spot which information to be collected and which not.
An Overview of a Research Study

4.5. Exercise

4.5.1. Fill in the blanks

a. Objectives are generally ................. two forms.
b. The research work should be completed within .................
c. Mobilize new group respondent to facilitate .................

4.5.2. True/False

a. Research is a scientific approach.
b. The word ‘reliable’ means gathered information need not be reliable as far as possible.
c. Negative impression should not create among study groups.

4.5.3. Tick (√) the correct answer

1. Objectives of a study represent
   a. summary
   b. over all goal
   c. conclusion
   d. introduction.
2. The word ‘actionable’ means the work is
   a. unrealistic
   d. measurable
   c. realistic
   d. unmeasurable.

4.5.4. Match column A with column B

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. In mnemonic SMAART,M stands for</td>
<td>i. great success</td>
</tr>
<tr>
<td>b. Research objective setting is a</td>
<td>ii. any research</td>
</tr>
<tr>
<td>c. Time bound is important factor in</td>
<td>iii. measurable</td>
</tr>
</tbody>
</table>

4.5.5. Short questions

1. Describe the process of developing objectives.
2. How would you arrange a community meeting?
Unit 2: Data Collection and Steps of Report Preparation

Lesson 1: Sampling Process

1.1. Learning Objectives

On completion of this lesson, you will be able to-

- define population
- describe sample size
- narrate data collection method
- know ethical issue in study and
- ensure data quality.

1.2. Introduction

To determine sampling process the first thing is to define the geographic area of the study. This is not difficult, as you already know the place of study in connection to your exercises for problem identification and objectives development.

Next decide on which makes your population? Is it the community as a whole; or the households; or all individuals irrespective of age and sex; or the children only; or the pregnant mothers only; or the day laborers only? The animals or inanimate objects can also be population. In population more than one group can also be included. You need a little understanding about the difference of population and sample. Population refers to all the members of the defined group. Some of the members of this population are usually selected as sample to collect information from. If collected methodically, information from the sample represents the population information almost completely, and can save valuable cost and time.

Who will be in the sample and what will be the sample size? The simple answers are: (a) the members of the population who fulfill the criteria set in the study objectives; and (b) there is no hard and first rule about sample size of qualitative study; however small sample size is enough if the investigator is convinced that inclusion of new member in the study will provide no new information. Furthermore, sample size can be increased or decreased depending upon the resources and time.

How to choose members in the sample? The way members are included in the sample is called sampling technique. In qualitative study, sampling technique is usually purposive and non-random. Purposive means you can judge who will best serve your need. Non-random means, every one in the whole population may not have equal chance of being selected. Qualitative study pays particular attention to
the uniqueness of the sample member. A simple analogy may be given. If you want to know the taste of food kept in a cooking pot, you can take a spoonful and taste it. You do not have to eat all the food. This is fine if there is only one pot of food to taste. But, if you have several pots of food in a meal, then each pot has to be sampled to find out what the various parts of the meal are. You can then say something about the food in each pot, as well as the meal as a whole. In a population, gender, age, ethnicity, occupation, literacy and income groups, etc. constitute different clusters like the individual pots of different foods. Sampling technique should give attention to this issue.

Table-1: Different forms of sampling techniques

<table>
<thead>
<tr>
<th>Sampling technique</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homogeneous</td>
<td>Respondents share common characteristics with minimum variation (e.g., 8 out of 34 village mothers aged 20 to 25 yrs to participate in a focus group discussion).</td>
</tr>
<tr>
<td>Chain (sequential)</td>
<td>Identifies cases of interest group. Each case then finds other similar information-rich cases (e.g., one traditional birth attendant recruited in the study helps to find others like her in the same locality to get additional informants).</td>
</tr>
<tr>
<td>Extreme case sampling</td>
<td>Focuses to learn from unusual manifestations of a phenomenon (e.g., one or two households showing unusual hygiene practice in a contaminated area).</td>
</tr>
<tr>
<td>Typical case sampling</td>
<td>Highlights what is normal or average.</td>
</tr>
<tr>
<td>Random purposive</td>
<td>Adds credibility to sample when potential purpose is too wide.</td>
</tr>
<tr>
<td>Stratified purposive</td>
<td>Illustrates subgroups and facilitates comparisons.</td>
</tr>
<tr>
<td>Criterion sampling</td>
<td>Includes those cases that meet some criteria; useful for qualitative measurement (e.g., mothers of &lt;5 years children fulfill the criteria of engaging in several daily routine hygiene practices).</td>
</tr>
</tbody>
</table>

1.3. Methods of Data Collection

Social science researchers have innovated varieties of techniques for participatory community research. Below are given some examples:

a. **Key informant interview**: Seeks those who are experts about specific issues. For example, village doctors know better about how people seek medical help in ailments. Interviews are based on open-ended questions, and are broadly three types: informal conversational, guided and standardized. Informal interview is
spontaneous and is loosely structured (no interview protocol is used). In guided interview, a protocol is used to guide the interview but not to follow exactly. In standardized interview, a protocol is followed exactly.

b. **Key probes:** Questions that can lead directly to key issues are used. Example: What happens when a pregnant lady complains of pain mimicking labor pain?

c. **Observation:** Investigator observes subjects or objects in natural and/or structured environments. It is useful to check whether people actually do what they say. It is an excellent way to discover what is occurring in a setting and good for participants with weak verbal skills.

d. **Case studies and stories:** To get detailed account of one or more cases. Example: Taking a household history and profile coping with a crisis.

e. **Groups:** To stimulate discussions, brainstorm, explore in-depth analysis and build consensus. Groups can be casual or random encounter, focus group, representative group, specific social group or formal group. Focus group discussion is a widely used method, where people from similar backgrounds or experiences (e.g., mothers, young married men, mid-wives) are invited together (ideally 6 to 8 but not exceeding 12) to discuss a specific topic of interest.

f. **Team building and interactions:** Team is formed for agreement by members on norms of behavior, modes of interaction, evening discussions, mutual criticism, help, collaboration, etc.

g. **Shared presentations and analysis:** Maps, models, diagrams and findings are presented by local people and/or outsiders, especially at community meetings, and checked corrected and discussed. It is a good tool for brainstorming especially in joint sessions with local people.

h. **Contrast and comparisons:** One group (say group A) analyzes another group (say group B) and vice versa. It may be a tool for gender awareness, asking men to analyze how women spend their time.

i. **Do-it-yourself:** Local people are asked to play expert role and outsiders as novices. The former group supervises and teaches skills (constructs a latrine, prepares herbal cure, etc.) allowing others to learn about their realities, needs and priorities.

j. **Transect walks:** It is a method of systematically walking with key informants through an area, and observing, asking, listening, discussing, learning about different zones, local technologies, imported technologies, problems, solutions, opportunities, and mapping and/or diagramming resources and findings. Transects take many forms, like vertical, loop, along a watercourse, etc. Another way of systematic walks is used in participatory rural
Data Collection and Steps of Report Preparation

appraisal, in which the investigator spends few hours to walk across the place of study. S/he may take one or two persons to accompany him/her. While walking, they will stop to greet people, especially in places where people normally gather (water source, village doctor’s chamber, shade of tree, etc.). Systematic walk is often used to identify key-informants. In addition, it helps to get knowledge about the physical context in which the particular practice of interest occurs.

Fig. 1: Resource mapping in a village

k. **Mapping and modeling:** Local people are involved in mapping, drawing and coloring on the ground with sticks, seeds, powders, or on paper with pencils, pens, paint brush, etc. to make social, health or demographic maps; resource maps (lands, forests, farms, gardens); topic maps (water, soils, trees, etc.); service maps (clinic, school, etc.); three dimensional models (watersheds, cyclone center, etc.).

l. **Timelines and trend and change analysis:** Local people are asked to recall chronologies of events, listing major local events with approximate dates; people’s accounts of the past, of how customs, practices and things close to them have changed; ethno-biographies - local history of a crop, an animal, a tree, a pest, a weed, etc. These are diagrammed or mapped showing ecological histories, changes in land use and cropping patterns, population, migration, fuel uses, education, health, credit, etc. and the causes of changes and trends, often with estimation of relative magnitude.

Fig. 2: Historical diagram for a village

m. **Seasonal calendars:** With the help of local people gather in a discussion, distribution of days of rain, amount of rain or soil moisture, crops, women's, children's and men's work including agricultural and non-agricultural labor, diet, food consumption, sickness, prices, migration, income, expenditure, etc. are drawn.
n. **Daily time use analysis:** Charts are drawn indicating relative amounts of time, degrees of hard work, etc. of people.

o. **Institutional or venn diagramming:** This is used for identifying individuals and institutions important in and for a community or group, or within an organization and their relationships.

p. **Linkage diagrams:** These are drawn to show linkage of flows, or connections, and causality. Example: marketing of goods, nutrient flows from farms, migration, social contacts, impacts of interventions and trends, etc.

q. **Wellbeing grouping (or wealth ranking):** It is a way of grouping or ranking households according to local criteria, including those considered poorest and worst off. It helps to lead into discussions of the livelihoods of the poor and how they cope.

---

<table>
<thead>
<tr>
<th>‘Poor’ Group</th>
<th>‘Medium’ Group</th>
<th>‘Better-off’ Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>(‘Food shortages every year’) 18 farmers</td>
<td>(‘Occasional food shortages’) 35 farmers</td>
<td>(‘Enough food all year round’) 16 farmers</td>
</tr>
<tr>
<td>- rice the shorts every year</td>
<td>- sufficient/surplus rice in some years</td>
<td>- surplus rice every year have both lowland and upland fields</td>
</tr>
<tr>
<td>- no lowland rice area</td>
<td>- less land than the ‘well-off’ group</td>
<td>- raise pigs, chickens, ducks and buffalo or cattle for sale</td>
</tr>
<tr>
<td>- have only chickens and ducks</td>
<td>- fewer livestock than the well-off group</td>
<td>- can purchase replacements if animals die</td>
</tr>
<tr>
<td>- cannot purchase replacements if animals die</td>
<td>- can buy replacements if animals die</td>
<td>- substantial house</td>
</tr>
<tr>
<td>- poor housing</td>
<td>- poorer housing than the well-off group</td>
<td>- have money/capital</td>
</tr>
<tr>
<td>- settled in the village recently</td>
<td>- have many different activities for income and livelihood</td>
<td>- have education</td>
</tr>
<tr>
<td>- have to sell labour and therefore lack labour for their own farm</td>
<td>- weave cloth for sale</td>
<td>- know how to utilize their resources well</td>
</tr>
<tr>
<td>- don’t have money to buy medicine</td>
<td>- exchange labour</td>
<td>- were the first settlers in the village, so got the best land</td>
</tr>
<tr>
<td>- have to borrow rice every year and have difficulty repaying their debts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Fig. 4: Matrix showing well-being grouping**
Data Collection and Steps of Report Preparation

r. **Matrix scoring and ranking:** It is a tabular format which helps to group or categorize information to quantify, compare and rank responses, factors, preferences, etc.

s. **Drama and participatory video making on key issues:** It is useful to draw together the problems, analysis and then exploring solutions.

t. **Photovoice:** It is a method to reach, inform, and organize community members, enabling them to prioritize their concerns and discuss problems and solutions. It entrusts cameras to the hands of people to enable them to act as recorders, and potential catalysts for social action and change, in their own communities. Then, the photographs are presented in group meetings. The visual image and accompanying stories furnish evidence and promote an effective, participatory means of sharing expertise to promote solution of local problems or create healthful public policy.

u. **Local analysis of secondary sources:** The community people participate to analyze aerial photographs, land map, health service data on local issues, etc.

v. **Finding and critically reviewing secondary data:** Secondary data may also be collected from existing data sources, such as, personal or official documents, newspapers, annual reports, meeting minutes, data created by other researchers or archived research data. These may be helpful in the earlier stages of study, viz. in problem identification, objectives setting, etc.

Detail description on some of the methods is given in the appendix. You are suggested to choose the appropriate method(s) that best suit your environment and convenience.

1.4. Ethical Issues

It is an ethical responsibility of the researcher to take informed consent of the participants before their inclusion in the study. In a community setting, where many people are illiterate or poorly educated, taking written consent may often create confusion and/or misinterpretation. Prior discussion with community leaders and other concerned people may help to avoid such situation.

Before recruitment of any participant in the study, explain to him/her about the purpose of the study. Assure them about the confidentiality and anonymity of sensitive and private information. Without taking prior permission don’t quote any body’s name in your study report.

Share your study findings with the participants to check the accuracy and give them a sense of ownership to the study.
1.5. Quality Assurance of the Data

Qualitative study lacks strictness about sample size and sampling technique. Therefore, the investigator needs to pay special attention so that the information being reported becomes trustworthy. Followings are few suggestions to enhance reliability of qualitative data:

- To engage the participants sufficiently in the study through building trust and rapport with the study population. Friendly interaction with people, use of local language, having an understanding of local culture/tradition, genuine respect for people and for their ways of life will help to build such relationship.

- To repeat the study cycles in multiple blocks. The whole study area can be divided into few small blocks, and the study can be done in one block (a cycle) and then repeat the same model in another block. The repeat studies can be helpful for follow up, further investigating the issues raised in previous one, seeing seasonal variation, etc.

- To triangulate the sources, methods and investigators. This is done through cross-checking of information on the same topic gathered from different sources, using different methods and/or by different investigators.

- To run parallel investigations and have communication between teams. In a study covering more than one location and involving more than one study team, the teams can cross-check the quality of each other's data sets by meeting regularly.

- To keep diary of activities. The investigator should keep a diary of activities throughout the period of study. This helps at a later stage of study to remember why decisions on certain methodology or change of direction were taken.

- To share the findings with the participants. The investigator should share the findings periodically with the study population and to check whether they agree with the investigator. This also helps in building rapport with the participants.

- To make the report detail enough enhanced with contextual descriptions and visualizations. Inclusion of sufficiently detailed or thick descriptions with visual materials and direct quotations capturing personal perspectives and experiences in study report provides better checks of data quality than thin reports.

- To conduct peer review or checking of the data. Review by peers not directly involved in the study helps to explore important aspects of the study that might have been overlooked by the investigators. This also helps to keep investigators honest by exposing them to searching questions which probe biases.

- To involve the stakeholders. The investigator may pay special attention to make a list of the stakeholders who may have direct or indirect interests about the study, and involve them in the study.
Data Collection and Steps of Report Preparation

This may be of great benefit not only to get their support in the study; but also in information gathering, analysis, interpretation; reflection and judgment of the results.

1.6. Scheduling the Activities

Make a tentative work schedule to distribute the various activities of the study to foresee what to do when. In the course of the study, you may need to change it as you will encounter practical and often unexpected experience. Still it will guide you to monitor your work progress with time. While making the work schedule, keep room for certain important aspects. Qualitative investigations demand a lot of energy and stamina. Investigators need to keep alert almost all the time. Therefore, periodic breaks and days off to rest, to refresh their minds, and/or to spend time with families, should be considered. Participant's holidays or busy days such as market days, should also be kept in mind. Think ahead and plan the study carefully to avoid unnecessary interruptions once it starts. Interferences can put at risk the study team's motivation and its rapport with the study population.

1.7. Exercise

1.7.1. Fill in the blanks

a. Population refers to all the members of ................. group.

b. A protocol is strictly followed in ................. interview.

c. The way members are included in the sample is called ................. technique.

d. Homogenous respondents have common ................. with minimum variation.

1.7.2. True/False

a. Geographic area selection is first step of a study.

b. Some members is taken as sample among large population.

c. Informal interview is spontaneous and tightly structured.

d. Brain storm explore in depth analysis and build consensus.

1.7.3. Tick (√) the correct answer

1. Sampling technique is usually

a. purposive

b. non-purposive

c. non-random

d. both a & c
2. Which one is the ethical responsibility of a researcher?
   a. to take consent of participant
   b. to deliver food to participant
   c. to gift something to participant
   d. to give some money to participant.

1. Which one of the following can be categorized as group?
   a. causal group
   b. random group
   c. focus group
   d. all above.

1.7.4. Match column A with column B

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Sample size depends on the</td>
<td>i. informant interview</td>
</tr>
<tr>
<td>b. Experts on specific issues are selected in key</td>
<td>ii. energy and stamina</td>
</tr>
<tr>
<td>c. Purpose of the study is explained to</td>
<td>iii. the participants</td>
</tr>
<tr>
<td>d. Qualitative investigation demand a lot of</td>
<td>iv. resources and time</td>
</tr>
</tbody>
</table>

1.7.5. Short questions

1. Define population and sample.
2. Write down the different forms of sampling techniques.
3. Describe methods of data collection.
4. How would you assure quality of data?
Lesson 2: Conducting Investigation of the Problem

2.1. Learning objectives

On completion of this lesson, you will be able to:

- collect data on the variables
- analyze the data
- identify and consolidate problems.

2.2. Collection of Data

In lesson 5, you have learnt about the different methods of data collection that are employed in qualitative study. Choose few of these methods, which you feel appropriate for your study, for data collection. To further understand how the different methods are used, go through the following description.

2.3. Key-Informant Interview

Purpose

To investigate general as well as specific issues by asking questions to interviewee informally but systematically and find out which practices are considered ideal or acceptable, and why.

Tool

A written interview schedule.

Procedure

- Read and understand semi-structured interview schedule well in advance
- Make your own brief set of notes to remind you of the question lines developed and the topics covered.
- Rehearse your question lines.
- If possible, take another person to accompany you as a note-taker.
- Introduce to the informant yourself, the note-taker, and any other members of your team; establish good rapport with the interviewee and his/her family.
- Listen carefully and use common sense when asking sensitive question.
- Avoid asking leading questions.
- Use prompts and probes sensitively.
• Draw the interview to a close by thanking your interviewee and any others who have assisted you.

Managing Information

At the end of each day, write up the interview notes. Expand and write further comment on the brief interview notes written during interview. Write your own ideas - relevant questions, importance of findings, themes, and so on. If possible try to organize information in separate file or index for easy access in future. Enter the transcripts in computer under qualitative data analysis software or word processor.

2.4. Structured Observation

Purpose

To see the location of community resources related to the study and to obtain the first hand information on the related practices in and around these locations and people's homes.

Tool

A structured (often pre-coded) observation schedule (see appendix-3).

Procedure

• Get clear idea about the structured observation schedule before field work.
• Have a wider view during field work and concentrate.
• Don’t try to draw unnecessary attention to what you are doing.
• Look, listen, and learn.
• Write down your observations. Make also additional notes on the schedule if deemed necessary.

Information Management

Sort the observation notes by general themes and specific clusters. Prepare a summary and keep it safe for crosschecking against information obtained by other methods. Define questions for further investigation. Enter the transcript in the computer.

2.5. Focus Group

Purpose

To explore the range of opinions/views on a topic of interest, as well as to brain-storm and work out plan, method or solution.
Data Collection and Steps of Report Preparation

Tools

Flip charts, tape recorder, papers, sticky notes, markers, pens, pictures, photographs, diagrams, etc.

Procedure

- Identify suitable discussion participants and invite a small group to a meeting at an agreed place and time.
- The ideal number of participants is six to eight, but be flexible about numbers.
- Be mentally prepared for the session; you will need to remain alert to be able to observe, listen, and keep the discussion on track for a period of one to two hours.
- Make sure you arrive at the agreed place before the participants, and be ready to greet them.
- Maintain a neutral attitude and appearance, and do not start talking about the topic of interest before the official opening of the group discussion.

Notes from a Focus Group Discussion

Translated from local language to English from a village in Kenya (P=participant A, B, C, etc. M=moderator)

M: Say according to the way you see. Don't say according to the way you think. Now say, since you got that tank, how do you see it has helped? You have a tank at home, how has it helped?

P(A): It has helped us very much. Because I can see when we drink water there are no diseases like stomachaches. I can see when you drink other water; it is not as good as the one in the tank.

M: And do you use this water for cooking?

P(A): Yes.

M: Does it help you and you don't have to fetch water in the mornings, so you don't get tired?

P(F): Yes, we don't get tired these days. Because when there were no tanks, we had to go with to the river. But, now, I can see these days I just sit and then I just fetch water and come to cook and help to wash clothes. These days I don't go to the river. Yes and even the cows and calves drink at home. Yes, it has helped very much.

P(C): It has taken money.

P(B): Yes, that has taken our money. (Laughter). But, we see that others could not build tank. They come to our home to beg for good water for drinking. But if they get little help, they can build their own.

M: Is there anything you want to say about the sanitation?

P(H): Yes, concerning matters about latrines? Yes, I can say this is something we need very much.
Begin by introducing yourself and your team, and ask participants to introduce themselves.

Explain clearly the purpose of the discussion. You may introduce topic with the help of photograph or picture.

It must be made clear to all participants that their views will be valued.

Bring the discussion to a close when you feel the topic has been exhausted, and do not let the group discussion degenerate into smaller discussions.

Be sincere in expressing your thanks to the participants for their contributions.

Refreshments may be served at the end of the meeting as a way of thanking the participants and maintaining good rapport with them.

Information Management

Write notes of the discussion. If you decide to use a tape recorder, you may prefer to take note of parts of the discussion only to save time. Enter the notes into computer.

2.6. Transect or Other Systematic Walk

Purpose

To gather information on the physical context of the study objectives, and see how people behave and interact with each other as they go about their daily routines, and also to get some insight into what people do when they are not at meetings, for instance.

Tool

A checklist or observation schedule.

Procedure

- Choose a suitable time when you will have more chances to see the context and behavior related to your study objectives. Conduct most of the walks at that time; but also do some outside that time.

- Be careful to observe local customs and social rules. For example, in a Muslim country, women may not like to talk to people they do not know. A female investigator is suitable to handle such gender issue.

- Gather a clear idea with the tool before setting out on the walk, and use it just as reference. Remain alert that it does not cause suspicion among the people you meet.

- Look, listen, and learn.
Data Collection and Steps of Report Preparation

- Try to perceive in details of what you observed, and make notes of things that were said during conversations with people you met.
- Use this opportunity to meet people who may not normally go to meetings, for example, mothers of young children. Explain to them the purpose of your visit. If you find some of them potential for group meeting, invite them to the meeting.

Information Management

Prepare notes at the end of day. Formulate or redefine questions for using later in the light of what has been seen and heard. Identify ways to reach different categories of study participants, such as busy individuals (e.g., mothers of young child), community elders, and leaders. Interpret findings at the end of your investigations. Make decisions on issues related to project design and implementation. Enter the transcript in computer.

Notes from a Transect Walk

(previous)........The investigator proceeded to the rural health center at 10:00 am. The center was still closed. A number of women came with their children to get medical help. The investigator asked one of the women, when the center would open. She replied that the time to open the clinic is at 8:30 am. But, the sub-assistant medical officer who is in charge of the center still has not arrived. It is not certain when he will come or whether he will at all come. It is a common feature. While talking to her, another woman came forward and joined to us. She told that the center only provides cheaper medicines, such as, tablet paracetamol or antacids. For costlier medicine, the doctor gives paper slip to buy from market. She also mentioned, “If you give some money to him, you will get the costlier medicine here. And you will not need to go the market.” Is there any body to see? The women had no idea about this. ........... (more)

2.7. Mapping

Purpose

To find out what community facilities related to the study are available for people to access and where.

Materials

White board, flip charts, chalkboard, or papers; marker pens, pens, pencils, chalk sticks; and adhesive tapes.
Procedure

- Introduce yourself and explain the purpose of the meeting and the planned activity. Speak clearly, in local language.
- Explain the task. Allow sufficient time for the participants to discuss the concept of a map, to ask questions, and to make suggestions as to how they would go about drawing it and what materials they want to use.
- Listen, look, and learn.
- Encourage/stimulate discussion, but do not dictate.
- Keep a list of participants for using in report and for future communication.
- When the map is finished, ask people to discuss any changes they think need to be made.
- Present the map to a larger group of study participants at another time.

Information Management

Write down detail notes based on the discussion taken place in the map making session. Reproduce the map in small paper to use in your report. Define questions for further investigation. Enter the transcript in computer.

2.8. Timeline

Purpose

- To investigate local history in chronological events related to the study objectives.
- To investigate specific issues related to the management of natural resources such as water, land, and fuel.
- To build rapport with local people, particularly with the community elders, by involving in a way that makes them feel that their knowledge counts.

Materials

- As in community mapping.

Procedure

- Invite local elders to meet with you for consultation about the history of the area.
Data Collection and Steps of Report Preparation

- Explain to the elders that you are interested to learn about important events that have taken place in the past and may or may not have been written down before.

**Notes taken during the discussion of a timeline**

From the village X of Bangladesh

According to the village elders, the village had no brick road during the Pakistan era. People used to drink from katcha well and there was high rate of mortality from diarrhea and cholera. Tube well was introduced after independence in 1971 and people used to use oral saline. This led the diarrhea and cholera death to drop almost to zero. They recalled that during 60s, Field Marshal Ayub Khan was the President of Pakistan. That time malaria was one of the major killer diseases. To get rid from malaria, the government sprayed DDT once every year in each household and to mosquito breeding places. Malaria was almost eradicated due to that measure. However, after independence, DDT was not sprayed even for a single time. Although malaria was not seen earlier, recently some cases of malaria are seen. They report that mosquitoes are plenty now. They opine that spraying DDT again can control malaria in the village. However, they do not know why DDT is not sprayed now.

- Assure them that your intention is to learn and not to judge, and that you are not going to use the information they provide against them.
- Listen and learn.
- Encourage every participant to contribute.
- Ask for further explanation of anything that is not clear to you.
- Ask for confirmation if you feel unsure whether you have understood what you have been told, or if the information given seems surprising or conflicting.
- When the timeline chart and discussion are complete, summarize the results verbally and ask the participants if the information you have presented reflects the discussion correctly, and note their responses.
- Thank everyone for their contribution and bring the meeting to a close. You may wish to serve refreshments, if available.

**Information Management**

- Transfer the timeline to paper to use as reference and in report.
- Enter the timeline and transcript in computer.
Senior Focus Elective

- Present the timeline chart to a larger group of study participants at another time.

**Seasonal Calendar**

**Purpose**

To obtain detailed information on the activities of local men, women, and children at different times of the year, as well as, to find out which illnesses are perceived to be most important and at what time of year or season they are most prevalent.

**Materials**

As in community mapping.

**Procedure**

- Introduce yourself and explain to the participants the purpose of the meeting.
- Give clear instructions in the local language(s) and allow ample time for the participants to discuss the local calendar, ask questions, and choose the materials they want to use.
- Assure participants that you are there to learn, not to judge or give advice.
- Listen, look and learn.
- Encourage everyone to contribute and allow for each contribution to be discussed.
- Keep a participants list to enable you to check who they were when reviewing the data.
- After completion, transfer the chart to a flip chart or black board, present it to the study participants, and invite their comments and suggestions. Any necessary corrections and alterations can be made on-site.

**Information Management**

Write notes on the discussion that took place in the meeting. Transfer the seasonal calendar in small size paper to use in report. You can store data obtained from a seasonal calendar on bar charts accompanied by the interpretation in text form. Enter the information in computer. Present the seasonal calendar(s) to a larger group of study participants at another time.
Notes from Discussions of a Seasonal Calendar Meeting

From a village in Tanzania

In Asanje village, seasonal calendars for activities, diseases, and climate were prepared in the same session. The participants included twelve women and nine men who began by discussing the common illnesses. The first illness mentioned was degedege which refers to convulsions. The term is commonly used for malaria fever. Both fever and convulsions were associated with the wet season. Participants agreed that degedege is a common illness during the months of January to April. The traditional doctor mentioned that he had treated many people for degedege in the past few months. The women participants recalled that in the recent months 15 children and only one adult died from degedege.

2.9. Photovoice

Purpose

To involve community or group members to record and reflect their community’s strengths and problems using photography as a tool, promote dialogue on important issues, and organize community approach for solution.

Tool

Camera and film

Procedure

- Identify group members capable of handling camera and interested to volunteer.
- Show some examples of documentary photography and associated story.
- Discuss with them about the goals of the project.
- Discuss about techniques of using camera and the best way to shoot different themes.
- Discuss on ethical issues which should be considered.
- Distribute cameras and give dateline for reporting back.
- Once the pictures have been taken and printed, have each participant to select 2 to 3 pictures to focus on.
- Have them to write caption and brief story about each picture.
- Organize a community or group meeting to enable them present the theme.
• Stimulate discussion (What do we see here? How does this relate to our lives? Why does this problem and strength exist? What can we do about it?).

• Take decision.

**Information Management**

Write notes on the discussion that took place in the meeting. Collect the photographs and stories to use in report. Enter the information in computer. Present the photo voice to a larger group of participants at another time.

For more detail information on various methods, you are advised to consult the qualitative study resources that may be easily available on the Internet.

**2.10. Analysis of Data**

Data analysis is an ongoing process in qualitative research. Like all other qualitative researchers, you should move through a cyclical process of collecting and analyzing data during your study. Continue interim analysis until you have fully understood the topic.

Write notes throughout the data collection and analysis process. Whenever you will have a new idea and/or insight, include those in the notes as additional data to be analyzed.

**Data entry and Storage**

In qualitative research, the investigator needs to transcribe their data. Transcription means typing of the text (from interviews, observational notes, etc.) into word processing documents. Later when you will analyze your data, use this transcribed document typically by using one of the qualitative data analysis computer programs.

Before the age of computer, qualitative data were traditionally analyzed "by hand" using some form of filing system. The availability of computer packages (some are specifically designed for qualitative data analysis) has significantly reduced the need for the traditional filing technique. The most popular qualitative data analysis packages, currently, are NUDIST, ATLAS, Ethnograph, etc. You may search the Internet to get free copy of one or other qualitative data analysis software.

• **Organizing Data**

This is the next major step in qualitative data analysis, which helps to summarize data. Some of the ways of data organization can be: (a) coding and grouping into categories; (b) enumerating critical terms and quantifying them in numbers and/or meaningful expressions, such as,
Data Collection and Steps of Report Preparation

some respondents, many respondents, almost all respondents, etc.; (c) hierarchical category system; or (d) other type of relationship (viz. cause and effect) between data; (e) diagram; (f) matrix, etc.

- **Grouping Data into Categories**

The purpose of grouping is to segment the findings into thematic areas. The researcher carefully reads the transcribed data, line by line, and divides them into meaningful themes.

During reading, whenever a meaningful segment comes, s/he codes them. Coding is defined as marking or labeling the segments of data with symbols, descriptive words, or category names. This process continues until segmentation and coding of all data are completed. During coding, prepare also a master list of all codes. Then, reapply the codes to new segments of data each time an appropriate segment is encountered during next phases of data collection.

**Table-1: Example of Coding**

<table>
<thead>
<tr>
<th>Participant responses</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is not enough space for every one.</td>
<td>Physical environment</td>
</tr>
<tr>
<td>Our office furniture is dated and needs replacing.</td>
<td>Physical environment</td>
</tr>
<tr>
<td>We need better cleaning service for the office.</td>
<td>Physical environment</td>
</tr>
<tr>
<td>There are leadership problems.</td>
<td>Management issues</td>
</tr>
<tr>
<td>Non-productive staff members should not be taken.</td>
<td>Personnel policy</td>
</tr>
<tr>
<td>Decisions are often taken based on inaccurate information.</td>
<td>Management issues</td>
</tr>
<tr>
<td>Communication needs improving</td>
<td>Inter-personal relation and coordination</td>
</tr>
</tbody>
</table>

- **Enumeration**

Enumeration is the process of quantifying data. A particular word of or a code may appear in the document a few times or a many times. Counting the number of appearances of the word or code may help to estimate the significance of the use of the word or code. The researcher can then use terms like “many, some, few, almost all, etc. to express frequency. But, caution is needed to interpret the occurrences of the word or code. For example, many people can use the word, or one particular person can use the word many times.
Hierarchical Category Systems

Sometimes codes or categories can be organized into different levels or hierarchies as shown in the diagram below.

The relationship of data can also express different sense, such as, cause and effect; rationality; suitability with regard to place, means or sequence. Look at the example below:

- **Cause-effect:** X is the result of Y
- **Rationale:** X is the reason for doing Y
- **Suitable place:** X is the place for doing Y
- **Suitable means:** X is a way for doing Y
- **Correct sequence:** X is a step for doing Y, etc.

The relationship can also be expressed as link diagram. The following diagram explains what may the possible interventions (such as rehabilitation, maintenance and punishment) and how these interventions can be implemented directly by teachers or through other agencies.

---

**Fig. 5: Hierarchical categories**

**Fig. 6: Link diagram**
Data Collection and Steps of Report Preparation

- **Diagramming**

Diagramming is the process of making a sketch, drawing, or outline to show how something works or to clarify the relationship between the parts of a whole.

![Fig. 7. Relationship diagram](image)

- **Matrix**

Data can also be organized also into matrix. A matrix is a rectangular or tabular array formed into rows and columns. Matrix is an excellent way to both find and show a relationship in qualitative data.

<table>
<thead>
<tr>
<th>Government Target</th>
<th>Responsibility</th>
<th>Achievement</th>
<th>Cause/Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanitary latrine</td>
<td>Sanitary Inspector</td>
<td>59 out of 70 homes have sanitary</td>
<td>Shortage of fund</td>
</tr>
<tr>
<td>in each home</td>
<td></td>
<td>latrines</td>
<td></td>
</tr>
<tr>
<td>One tube well</td>
<td>Municipality</td>
<td>Total 10 tube wells</td>
<td>Do</td>
</tr>
<tr>
<td>for 5 households</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No open animal</td>
<td>Sanitary inspector</td>
<td>None of the pits is covered</td>
<td>Lack of initiative</td>
</tr>
<tr>
<td>excreta pits</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The computer software for qualitative data analysis can facilitate most of the data analysis techniques, e.g., sorting and coding, creating classification systems, enumeration, attaching notes, finding relationships, and producing graphs and charts. One highly useful tool in computer packages is Boolean operators which can be used in performing complex searches that would be very time consuming if done manually. Boolean operators are words that are used to create logical combinations such as AND, OR, NOT, IF, THEN, and EXCEPT. The computer package usually provides in-built online help files to provide instructions about use of these operators.
2.11. Identification and Consolidation of Problems that Require Interventions

Discuss with your group members in several sessions to identify and prioritize the problems that require interventions. Discuss why the problems occur and how to intervene them. Which logistics will be required? Who are the stakeholders? Who can support? What are the challenges? How those challenges can be overcome? Prepare a briefing document based on your group work for discussion in the community meeting.
2.12. Exercise

2.12.1. True/False

a. Food rapport should not establish with interviewee and his/her family.
b. Muslim women may not talk to people they do not know.
c. Mapping helps people to access in study.

2.12.2. Fill in the blanks

a. Listen carefully and use common sense when asking sensitive .............. to the participants.
b. Data analysis is an ongoing process .............. research.
c. Matrix may be used in .............. organization.

2.12.3. Tick (√) the correct answer

1. Diagramming is the process of making a
   a. sketch  
   d. drawing  
   c. outline  
   d. all above.

2. Data organization can be done by
   a. coding and grouping into categories  
   b. hierarchical system  
   c. matrix  
   d. all above.

2.12.4. Match column A with column B

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Grouping of data is done to segment</td>
<td>i. qualitative research</td>
</tr>
<tr>
<td>b. Coding is defined as labeling the</td>
<td>ii. segment of data</td>
</tr>
<tr>
<td>c. A matrix is a rectangular array formed into</td>
<td>iii. rows and columns</td>
</tr>
<tr>
<td>d. Data analysis is an ongoing process in</td>
<td>iv. the findings</td>
</tr>
</tbody>
</table>

2.12.5. Short questions

1. Write down the procedure of data collection
2. Describe the purpose of data collection.
3. Define coding. Give an example of coding.
Lesson 3: Developing a Model or Strategy for Improvement in the Study Area

3.1. Learning Objectives

On completion of this lesson, you will be able to-
- know component of strategic plan
- improve strategy
- supervise and monitor plan
- evaluate plan.

3.2. Component of Strategic Plan

The strategic plan for the project will have following components:
- Vision of the project
- Mission of the project
- Objectives of the project
- Activity list
- SWOT analysis
- Constitution of Project Management Committee
- Schedule for implementation of the activities
- Supervision and Monitoring of Plan
- Plan evaluation
- Budget for implementation

3.3. How to Develop the Strategy for Improvement of the Area

In connection to your continued and dedicated work you should have by now many friends and well wishers in the community. You now know who are the influential persons? Who are the stakeholders? Who can support you with resources? Who may disagree with your idea? Keep the group members actively involved and convene a brainstorming meeting of those people who represent different segments of the community. The agenda of the meeting will be to discuss the findings of the study, the problems, the priorities and the solutions taking help of the briefing document prepared in the previous assignment. Undertake adequate preparation and prior public relations activity so that the meeting becomes truly participatory and the attendees understand what you want to say.

In the meeting, begin with presentation of summary findings, with strengths and problems. Use appropriate method for good communication with the audience. Ask them whether they agree.
Data Collection and Steps of Report Preparation

Explain and resolve the difference of opinion if any and come to a consensus. Now explain to them that some or all of the problems can be solved if they want solution to them. It is natural that they would seek solution.

Now urge upon them to think practically to understand that it may not be possible to solve all the problems overnight or at a time. So, they should guide you to prioritize few problems according to urgency/or practicality of solution. Ask them which of the problems they think can be pushed aside for later implementation. Continue this exercise and reduce the problem list to within affordable limit, say to 3 or 4. Take a fresh sheet and re-write the 3 or 4 problems (you may draw pictures). Stimulate discussion to order these 3 or 4 problems putting the most important one at the top and so on.

Now move to actual project development.

3.3.1. Making a Vision

Ask the participants to imagine how the things will look at the end of the project. Do they want to see complete solution of the problems or a partial solution? Give example in their own language so that they can capture the meaning. One example can be something like: Each household of their community “X” will have provision for facilities “a” and “b” by the end of six month project period. Watch out the problem list and the desired level of solution to each. Match your vision accordingly. Propose yourself few alternate options to enable participants feel comfortable to choose from?

3.3.2. Making a Mission Statement

Mission is the way or path or approach through which the project should move to achieve the vision. The people may decide to solve the problem entirely by themselves without taking external fund; or they can take assistance from government agencies and donors in addition.

In the former case, the mission can be something like:

Community X people will solve their so and so problems entirely by own efforts through mobilization of local resources.

In the later case, it can be something like:

Community X people will solve their so and so problems mostly through mobilization of local resources, and in addition, through mobilization of government and donor resources.
3.3.3. Setting Objectives of the Project

Keep this work to accomplish later in your small group. Follow the “SMAART” criteria of objectives while setting them.

3.3.4. Making the Activity List

Start with the first problem from the problem list. Ask the participants to suggest what are some of the activities they will need to do to solve the problem? Write down or draw picture. Stimulate them to contribute more. Add also your own suggestion if any. When done, move on to the next problem; repeat the similar exercise and move on to the next, and so on. With this exercise, you will have a set of activities planned for the project.

3.3.5. The Participants Need a Break

Lot of work has been done today. Celebrate the outcome with snacks or entertainment? Choose to close the discussion for today or to resume after the break.

3.3.6. Next Session: Start with SWOT Analysis

SWOT is the short for Strength, Weaknesses, Opportunity and Threat. For implementation of each activity, some resources (viz. human, material, money, time) will be required. Some of them may be already available and some may need to be mobilized. There can be factors such as cultural, literacy and skill level of population, employment, policy, political structure, class system, etc. to either act as barrier or strength. There can be unexpected event such as natural calamity, disease outbreak, political turmoil, etc. SWOT analysis helps to forecast these possibilities well ahead at the planning stage, and outline measures to handle such situations. This makes the implementation phase relatively easier.

Begin the session for SWOT analysis with warm greetings to the participants. Explain to them that some of the planned project activities may be easier to accomplish whereas others may be more or less difficult. So, it is important to first identify which are the factors that may help to easily do the activities, and which are the other factors that may pose difficulty? After identification of the factors, they should find ways to gain more advantage of the helpful factors and overcome the negative factors. The participants may feel afraid of the job. Help them to relax, and assure that the exercise will not be as much as difficult as it seems to be.

It will be good if you can arrange some large sheets of paper to fix on the wall for doing this exercise. Draw a matrix on the sheets with marker pen. As an alternative, you can use large sized white or chalk board.
Table-5: Matrix for SWOT analysis

<table>
<thead>
<tr>
<th>Activity</th>
<th>Need for resource</th>
<th>Strength</th>
<th>Weakness</th>
<th>Threat</th>
<th>How to overcome</th>
<th>Overall responsibility</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

How to complete SWOT analysis form

1. Enlist the activities planned for the project in the first column, one in each row.
2. Move in a systemic way and complete one row first and then move on to newt row until you complete the whole matrix.
3. Begin from the top activity and ask the participants to tell which resources this activity would require to implement? Human (how many and with which background?); money (how much?); materials (what type; how much; what is the total cost?); Support (which type; from whom?); Time (how much; from-to?). In each point come to a common agreement. Enlist down the resource list in the column titled “Resource”.
4. Go to the “Strength” column. Discuss to identify (for the same activity) which resources are available and what are the other positive things that may contribute to the achievement of the activity. Write down when all agree.
5. Go to the “Weakness” column. Discuss how much resources are short and what are the other negative things that may pose difficulty in the achievement of the activity. Write down when all agree.
6. Go to the “Opportunity” column. Discuss if there is any opportunity to mobilize the resources that are in short. What are the other opportunities that may enhance the positive things? Write down when all agree.
7. Move on to the next column titled “Threat”. Ask the participants to imagine for few moments what can be some of the unexpected things that may happen, which are beyond their control and may hinder achievement of the activity. Invite them to tell you what they imagined. When all agree, enlist them.
8. Move on to the next column. Invite suggestions on how to overcome the weaknesses and the threats. When all agree, write them.
9. Now read out the writings in all columns under this activity and ask the participants to suggest name of the right person(s) who can be assigned to take the responsibility for this activity. Be sure that the responsible person(s) be willing to accept the
responsibility. When all agreed, write the name in the “Responsibility” column.

10. Well done. Give a big club for the success. Appreciate the participants and make them feel the great value of their ability. Inspire them by telling “they have created evidence that they will be able to complete the whole task in one of the best ways”.

11. Move on to the next row and follow the procedures mentioned above to complete SWOT analysis for the second activity.

12. Complete SWOT analysis for all other activities one by one in the same way.

13. In the end, give sincere thanks to everybody for coming and actively participating in the exercise.

14. Remind them that before going to implementation phase, they will need few more tasks to complete, viz. project management plan, time plan, supervision and monitoring plan, evaluation plan, and budget preparation. Explain to them that the initial work for these may need deeper attention, which are good to do in smaller group. If they kindly give permission, then you and your group can do the preliminary job. Then, in a next meeting they will again be invited to discuss and finalize the group proposal.

15. Conclude the meeting, after decision on this point. You may also fix a date for the next meeting.

### 3.3.7. Outlining the Project Management Plan, Time schedule, Supervision and Monitoring Plan, Evaluation Plan, and Project budget

Sit with your group members after the first SWOT analysis meeting. Bring to the meeting the strategic project plan completed so far and transferred on A4 size paper (vision, mission, objectives, activity list, SWOT analysis). Open up the documents and begin exercise.

**Project Management Plan**

The project will need a small project management committee to oversee all aspects of project implementation. Brainstorm in the group and design an organizational structure for such as committee. Outline its hierarchy, reporting and accountability systems. Try to accommodate those persons who are already assigned responsibility in the previous community meeting. Propose whom to make chairman and how to operate project fund. Ascertain responsibility in writing for each committee member. Propose how frequently the committee will meet. Constitution of project management committee may become a sensitive issue. So, take approval of it in the community meeting with broader participation.
Data Collection and Steps of Report Preparation

### Time Schedule

The time schedule is a plan to foresee which project activity will be carried out when. Draw a time schedule matrix on an A4 size blank paper, where the activity list should go on the first column and the time slots in the subsequent columns. The time slot columns may represent duration week by week (for short duration project) or month by month (for relative longer duration project), one column for each week or month. Number the time slot columns in order, the first being the column 1 (for first week or month) and last being for the last week or month of the total project period. Put an additional column after the time slot columns to show cost for the activity.

**Table-6: Activity schedule**

<table>
<thead>
<tr>
<th>Activity List</th>
<th>Time slots (month)</th>
<th>Costs (Tk.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activity a</td>
<td>1 2 3 4 5 6 7 8 9 10 11 12</td>
<td>xxx.xx</td>
</tr>
<tr>
<td>2. Activity b</td>
<td>x x x x x x</td>
<td>xxxx.xx</td>
</tr>
<tr>
<td>3. ..........</td>
<td>x x x x</td>
<td>xxx.xx</td>
</tr>
<tr>
<td>Total=</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Give the title of the columns, viz. Activity List, Time slots, Costs. Enlist the project activities in the “Activity” column, one activity in each row and give serial number. Complete writing all the activities. Read out the first activity and discuss when should it start and finish. If the activity requires implementing in phases, determine when to start and finish different phases. When decided, put time line (or other markings) in the time slot along the same row. Calculate the amount of costs for the whole activity and put the value in the Costs column. Repeat the exercise for the second and subsequent activities. Celebrate when done.

### Supervision and Monitoring Plan

Supervision and monitoring are often inter-related and they complement each other.

Supervision refers to seeing whether the different individuals, viz. staff, volunteers, committee members, are doing their job properly. Supervision identifies the lacking in this regard and takes action so that the work improves. The popular alternative term for supervision is supportive supervision. It emphasizes that when a subordinate will be supervised, s/he will not be blamed or punished for the failure; rather the supervisor will advise, demonstrate, train and encourage him/her to do the job in the right way. The supervision plan should include the job description of each individual involved in the project implementation;
Monitoring refers to seeing whether the progress of the project activities is on the right track, and whether the activity will be finished in projected time if it continues in the same speed. Appropriate indicators and tools are needed to effectively monitor the progress of different project activities. One or more persons should also be assigned to perform the monitoring function. During monitoring, if one or other activity is seen to be performed poorly, then the reasons for it should be investigated and corrective measures should be applied.

To draw a monitoring plan, take an A4 size white paper. Orient the paper horizontally (landscape) so that you get longer side horizontally and shorter side vertically. Draw a matrix on it something like this.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target</th>
<th>Indicator</th>
<th>Source of data</th>
<th>Tool</th>
<th>Frequency</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

Enlist the activities in the column “Activity” one in each row. Start with the first activity and discuss within the group to decide about the other parameters for the activity. Complete the whole row for the first activity and move to next activity. Continue the exercise until you finish making the supervision and monitoring plan. Look at the example below on how to complete the monitoring plan.

<table>
<thead>
<tr>
<th>Column</th>
<th>How to fill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity</td>
<td>Write the activity defined in project plan.</td>
</tr>
<tr>
<td>Target</td>
<td>Put a target relevant to the activity. Use measurable term. Example: An activity like “Promotion of exclusive breast feeding” may have target like “100% of lactating mothers giving EBF to their children up to 6 months of age”. Similarly for an activity “To dig new tube wells”, the target can be “To dig 10 new tube wells in the community by the end of project period”.</td>
</tr>
<tr>
<td>Indicator</td>
<td>Choose an appropriate indicator for measuring achievement of the target, say % of lactating mothers giving EBF; or No. of tube wells dug.</td>
</tr>
<tr>
<td>Source of data</td>
<td>How will you get the information? “Registers” can be a good source of information. Periodic “field visit” using forms may help also to see what is happening actually.</td>
</tr>
</tbody>
</table>
Data Collection and Steps of Report Preparation

<table>
<thead>
<tr>
<th>Tool</th>
<th>Tool is the instrument with which data will be collected. You may use “Checklist” or “Form” as tool.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Depending upon the nature of activity (intensive or less intensive job), you may decide on the frequency of data collection. This may be weekly, monthly, quarterly, annually or once in the whole project period. For example, to see EBF practice, it can be monthly, and for tube well digging, it can be quarterly.</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Assign one person to conduct the supervision and monitoring, and report to project committee. Put his/her name in this column.</td>
</tr>
</tbody>
</table>

**Evaluation Plan**

Evaluation is the ultimate judgment to see whether the project was successful in terms of its input, process and outcome. Evaluation can be “mid term evaluation” to do around the middle part of the project or “final evaluation” to do at the end of the project. For a short-term project, a mid term evaluation is usually unnecessary and a final evaluation is more than sufficient.

Although evaluation can be internal to be done by project’s internal people; but it is better to do an external evaluation to allow the project to be seen by external eyes. There are professional bodies or persons to conduct formal evaluation. If the project is donor supported, the donor usually employs professional evaluator(s) to assess the project.

For your particular project, think whether some amount of money can be made available from within the project budget to employ external professional evaluator. As an alternative, you may request your peers, friends or others who may help you to conduct a neutral evaluation using the guidelines and tools you prescribe. However, you need not be worried about this matter now. Rather keep this aside to think near the end of the project.

While preparing the Evaluation Plan, include the components as shown in the following table.

**Table-9: Components of project evaluation plan**

<table>
<thead>
<tr>
<th>Component</th>
<th>Measurement parameters</th>
</tr>
</thead>
</table>
| Outcome   | 1. What are the achievements (Objectives vs. Targets)?  
2. Has the project been successful? Is there any failure?  
3. What are the reasons for success or failure?  
4. What benefits the community has gained through this project?  
5. What benefits the individual members have gained?  
6. What new knowledge and skills have been gained? |
7. What are the personal potentials and emotional bondages the project has explored?
8. What inspirations for future programs have been acquired?

Input & structure
1. Was the input adequate? If not, why?
2. Was there any relationship of input with the outcome?
3. Was the organizational structure right?
4. If not, where was the fault?
5. How the structure could be improved?

Process
1. Was the process right? If not where was the fault?
2. How the process could be improved?

Sustainability
1. Does project needs to continue?
2. How can it be made sustainable?

Project Budget

Now you are almost at the end of completing the project plan. Prepare at this stage an estimate to reveal how the different activity as well as the whole project may cost to implement. If you remember, you will see that you have already made a rough estimate of the costs for each activity in your project time schedule. Bring those estimates in the matrix for budget. Further refine the estimates, show unit cost and quantity. Also add component for project management, monitoring and evaluation cost. A matrix is shown below:

**Table-10: Matrix for budget**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Unit cost (Tk.)</th>
<th>Quantity</th>
<th>Amount (Tk.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Sharing the Group Work with the Broader Community Members

It is very exciting that you have been able to manage your group members to accomplish a great job. You have together outlined the project management plan, project time schedule, supervision and monitoring plan, evaluation plan, and project budget. As your intention is good, surely the community members will appreciate your activity. Despite this truth, you should make effort by all means to share your work with them and take approval. Call the meeting of the community members as planned earlier. Present your work there in an easy to understand way. Encourage them to freely express their views. Discuss. Make revision if felt rationale. Finally come to consensus. Celebrate.
3.4. Exercise

3.4.1. Fill in the blank

a. Mission is the way to more to ................ the vision.

b. SWOT is stand for strength, weakness, opportunity and .................

c. Project time schedule is prepared to plan which ............... will be carried out when.

d. Supervision refers how staff, volunteers and committee members of project doing their ............... properly.

3.4.2. True/False

a. Vision describes the image of the project.

b. In SMAART, T stands for treatment.

c. Group work is shared with broader community member.

d. A project management is needed to observe all aspects of project implementation.

3.4.3. Tick (√) the correct answer

1. Which one the component of strategic plan of project?

a. vision
b. mission
c. evaluation
d. all above.

2. Monitoring of a project is done to

a. determine cost
b. evaluate activity
c. see the progress
d. see staff performance.

3. Which one is not included in the component of project evaluation plan?

a. outcome
b. input
c. process
d. budget.
3.4.4. Match column A with column B

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. In SWOT, O stand for</td>
<td>i. supportive supervision</td>
</tr>
<tr>
<td>b. Alternative term of supervision is</td>
<td>ii. evaluation</td>
</tr>
<tr>
<td>c. The final judgment of project is</td>
<td>iii. the vision</td>
</tr>
<tr>
<td>d. Project mission is the way to achieve</td>
<td>iv. opportunity</td>
</tr>
</tbody>
</table>

3.4.5. Short questions

1. Write down the components of strategic plan.
2. Define monitoring supervision.
3. Write short notes on vision and mission of project.
4. Elaborate the term SWOT and SMAART.
5. How you complete SWOT analysis form?
Lesson 4: Implementation, Evaluation and Report Writing

4.1. Learning Objectives

On completion of this lesson, you will be able to-

- implement objectives project
- conduct project evaluation
- write study report
- suggest further action on study.

4.2. How to Implement the Planned Strategy for Achievement of the Project Objectives

Now you have the blueprint of the project. It describes what to do, when, by whom and how. Facilitate the project management committee to take over its responsibility and convene its first meeting. The committee may desire to formally launch the project implementation and keep it going as it is written in the project plan.

The project management committee should adhere to the supervision and monitoring plan to oversee whether the project is moving satisfactorily as per expectation with respect to each planned activity. Record keeping and use of records in decision-making should be highly emphasized. Give your personal attention to this issue. Because, reliable and complete set of information will help you enrich your report. It is quite natural that unexpected things will happen and in some cases results will not conform exactly to what was imagined. The project management committee should analyze the reasons and take timely measure either to change direction or adapt compensation strategy. To keep stimulation of the local people, you can arrange visits of external people, such as, high officials, donor representatives, experts, etc. occasionally to see the project and if possible to lecture at people’s gatherings.

Doing the Evaluation

At the end of the project period hold the project evaluation as planned in the project strategic plan.

4.3. Writing the Study Report

There are standard guidelines or format about preparation of study report. If so, you are advised to follow that guidelines and format.

It may be assumed that during the course of this study, you had the opportunity to see quite a number of thesis, dissertation, or report of qualitative study. It is the good time now to revisit some of these works.
to more clearly grasp the reporting format of qualitative study. Remember! The more you will read, the more you will discover how beautifully a report can be organized, written and presented.

Below is given a general outline, which should more or less fit with any standard format.

<table>
<thead>
<tr>
<th>Table-11: General outline of report writing for scientific study</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section</strong></td>
</tr>
<tr>
<td>Title page</td>
</tr>
<tr>
<td>Acknowledgment page</td>
</tr>
<tr>
<td>Table of Contents</td>
</tr>
<tr>
<td>Lists of Tables and Figures</td>
</tr>
<tr>
<td>List of people consulted</td>
</tr>
<tr>
<td>List of Abbreviations</td>
</tr>
<tr>
<td>List of Glossary</td>
</tr>
<tr>
<td>Abstract</td>
</tr>
<tr>
<td>Introduction</td>
</tr>
<tr>
<td>Literature Review</td>
</tr>
<tr>
<td>Objectives</td>
</tr>
<tr>
<td>Methods</td>
</tr>
<tr>
<td>Results</td>
</tr>
</tbody>
</table>
## Discussion

Give emphasis to the new and important aspects of the study and the conclusions that follow from them. Do not repeat in detail data or other information given in the Introduction or the Results section. Begin by summarizing briefly the main findings, then explore possible explanations for these findings, compare results with other relevant studies, state limitations, give interpretations, and explore implications of the findings. Link the conclusions with the goals of the study but avoid unqualified statements not adequately supported by the data. Make appropriate recommendation exactly relevant to the findings.

## Conclusions

Summarize the conclusions drawn in the Discussion section.

## Recommendations

Summarize the recommendations, which you have given in the Discussion section. Don’t make irrelevant recommendations that are not related to your study findings.

## References

Follow the guidelines of your university to decide which citation method you should follow. If there is no such guideline, discuss with your supervisor who will suggest you about this. In general, one of the two popular citation methods, viz. the Vancouver or the Harvard reference styles, is followed. British Medical Association maintains a web-based (http://www.bma.org.uk/ap.nsf/content/LIBReferenceStyles) fact sheet on the reference style containing elaborate discussion, comparison and useful links to the authoritative sources. Consult this fact sheet for detailed description and latest updates of the citation methods.

## Appendices/Annexes

Include the interview schedule, observation check list, diary of activities, field notes, strategic plan, and any other important thing.

---

Before planning for the report, you should remember that your study has two components, viz. investigation of the problem and a project to solve the problem. Therefore, prepare a complete report including both these components. One way may be to incorporate relevant part of each component in the respective section of the report. Another way can be to make two parts of the report, first part for reporting the investigation of the problem and second part for reporting the project, which you undertook for solution of the problem. Discuss with your supervisor to get a guidance on how both of you like to see the report.

### 4.4. Formulating Suggestions for Further Actions

Suggestions for further actions will be included in “Discussion” and “Recommendation” sections of the report. To formulate suggestions,
carefully examine the “Results” section both for the “problem investigation” and “project”. Find out the important problems and outcomes. Explore the underlying mechanism or explanation and implication for the findings. Try to construct conclusion. Think how the problems can be solved or how the achievements can be further expanded. Never make conclusions or suggestions not directly related to your study or remote to your study findings. For example, if you carry out a study to see cultural effects on hygiene practices without collecting data on educational levels of the respondents, you cannot suggest giving education them to improve hygiene, although education may improve their hygiene practices. Include the suggestions in the respective part of the “Discussion” section. Extract the suggestions from the “Discussion” section and organize in order in the “Recommendations” section. Begin each recommendation with a ‘command’ verb. For example, rephrase the recommendation “Educational opportunity in the community should be extended” in this form: “Extend educational opportunity in the community”.

4.5. Submitting the Report to University Authority

Make adequate number copies of the report of appropriate size and printing format bound in hard covers.

4.6. Exercise

4.6.1. Fill in the blanks

a. Project management committee should adhere to the supervision and ...............  
b. The contribution of helper of study is mentioned in the ............... section.  
c. For stimulation local people you should visit ............... people.  
d. Your report should following the ............... guideline.

4.6.2. True/False

a. Reliable and complete set of information will enrich report.  
b. Results give descriptive report of findings.  
c. Report does not indicate further action.  
d. References are written following specific guideline.

4.6.3. Tick (√) the correct answer

1. What reflects the title of the study?  
   a. conclusion  
   b. theme  
   c. summary  
   d. acknowledgement.
Data Collection and Steps of Report Preparation

2. Which one is the sequence of report writing?

a. Title page
   i. Acknowledgment
   ii. Table of contents
   iii. List of table and figure
   iv. List of abbreviation.

b. Title page
   i. Table of contents
   ii. List of abbreviation
   iii. List of table and figure

c. Title page
   i. List of table and figure
   ii. Table of contents
   iii. List of abbreviation

d. Title page
   i. List of abbreviation
   ii. List of table and figure
   iii. Table of contents

4.6.4. Match column A with column B

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. After study, evaluation is done according</td>
<td>i. discussion and recommendation</td>
</tr>
<tr>
<td>to project</td>
<td></td>
</tr>
<tr>
<td>b. Further action is reported in</td>
<td>ii. appendices</td>
</tr>
<tr>
<td>c. Interview of the study populations is</td>
<td>iii. strategic plan</td>
</tr>
<tr>
<td>included</td>
<td></td>
</tr>
<tr>
<td>d. Interview of the study populations</td>
<td>iv. discover</td>
</tr>
<tr>
<td>included</td>
<td></td>
</tr>
</tbody>
</table>

4.6.5. Short questions

1. How would you implement planned strategy?
2. Write the general sequence of report writing.
Appendix

IN-DEPTH INTERVIEW GUIDE

Respondents: GENERAL PUBLIC


Moderator Checklist

Date __________________________ Interview ID# _______________________
Moderator _____________________ Note Taker/Recorder ___________________
District _______________________ Urban or Rural _______________________
Village/Town ___________________ Male or Female _____________________
Start Time _________________ Finish Time _______________________

[NOTE: Please make sure the participant has read and signed the Informed Consent Form before beginning the interview]

Introduction

Hello and welcome to this discussion. My name is _______________________. I am a researcher with the USAID-funded project which is called the Partners for Health Reform plus (PHRplus) Project. The PHRplus project has been working closely with the Government of Albania to investigate ways to improve the provision of primary health care services, including health financing reforms. We are conducting a study that aims to improve health care financing and delivery in Albania. This study will include approximately 150 people from the districts of Berat, Kuçova, and Fier.

As part of this study, we would like to discuss your experiences with and opinions about things or money given to public health facility staff for services in cases where payment is not required by the government. We are talking about supplementary or “informal” payment. We are not talking about official fees.

I will be facilitating the discussion and my colleague ______________________ will be taking notes. The discussion will also be audio taped. No one will have access to these tapes except the research team, and none of you will be identified by name, to ensure your privacy. We would like you to read this form, which explains the study and your voluntary participation in it. If you agree to participate in the study, we would like you to sign this form before we begin the discussion.

NOTE TO INTERVIEWER

BEFORE YOU START:

2) MAKE SURE THE INFORMANT HAS READ AND SIGNED THE INFORMED CONSENT FORM.

3) MAKE SURE THAT THE TAPE RECORDER IS WORKING.
Data Collection and Steps of Report Preparation

Let’s begin. I will be using a general interview guide that will be used for all participants. Remember that you don’t have to answer questions if you wish, and you can stop the interview at any time.

1. Family and background
   a. When were you born?
   b. Where do you live now?
   c. What level of education do you have?
   d. Are you married?
   e. Do you have children?

2. Occupation
   a. Do you work?
   b. What is your job?

3. Practice of Informal Payments
   a. Have you ever made an informal payment for health care services? If no, do you know of any family member or close friend who has made an informal payment? (If the informant has not made an informal payment and doesn't know a family member or friend who has made an informal payment, then interviewer should stop the interview to talk with Supervisor. With supervisor, the interviewer should adapt questions, then interview the respondent about attitudes toward informal payments in general.)
   b. Where and when did you last make an informal payment for health services? Was the payment for you, or for a family member? What type of facility/health activity were you (or the family member) attending?
   c. How was the payment made?
      i. Who did you give it to (please describe all people who are paid, not only providers)?
      ii. When and how did you know how much to give, and how did you know who expects to be paid?
      iii. Do you ask a receptionist, nurse, doctor or other staff member? If not, why not?
      iv. Did you pay cash or you gave anything else?
      v. How much?
      vi. How did you obtain the payment you needed—did you have the money, or did you have to borrow, sell assets, or otherwise raise the money?
   d. Would the health personnel ever bargain with you on price? Why/why not?
   e. Do you have to make the payment immediately, or would a provider accept to be paid later, after you have left the facility? If after, how does this work?
   f. What services did you receive for the payment you made?
   g. What do you think the informal payment you made was used for?
   h. What other experiences have you had making informal payments (not only this last time)?
i. What do you know about how informal payments vary for different services or providers? For what reasons do the payments vary?

j. If you know how much different providers or services expect to be paid (informally), does the price affect which ones you decide to use? Why or Why not?

k. Do you seek other people’s advice or their help in paying? How does this influence your choice of service?

4. Why do you make the payments? How did you feel about the experience of making the informal payment?
   a. Was there anything positive about the experience? If so, what? (Probe: were there benefits for you?)
   b. What concerns did you have about the experience?

5. What are the terms people use to describe informal payments?
   a. Did you consider the payment you made to be a gift? Why/why not?
   b. What is the difference between a gift and an informal payment, in your view?
   c. How would a patient talk about informal payments with a provider? What might the patient say, actually, and what might the provider say back?
   c. Some people say these payments occur due to culture and tradition. What do you think about this? (Probe: How have the payments changed over time, and why? How have services changed over time? How has this influenced the payments?)

6. What do you think is already being done about informal payments and what is your opinion about it?

7. The government is planning some health reforms that will improve the health care system and make it better financed and more accessible. These reforms might include increasing insurance coverage, increasing the wages of health workers, and increasing official fees.

   a. How do you think these reforms will affect informal payments? Why/why not?
   b. What is your opinion about whether community members should play a role in making sure the new system works well?
      i. What role community members play, and how will it help?
      ii. Do you think it would help if each facility or level of the health care system has a community board? What might be good about this? What problems might there be?
   c. What effect do you think these reforms will have on informal payments?

Those are all the questions that I had for you. Do you have any questions for me?

Thank you very much for your time and information. It is greatly appreciated.
SEMI-STRUCTURED INTERVIEW GUIDE


Name of respondent: ............................................................
Village/Town/City: ..............................................................

1. Greetings (for example, "Good morning/afternoon; How are you and how are the children? How are other members of the family? etc.)
2. How many children do you have?  ______________________
3. Tell their names and ages:

<table>
<thead>
<tr>
<th>Girl</th>
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<th>Boy</th>
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Total No.        Total No.

4. Are the children able to use the latrine on their own?  □ Yes □ No
5. If not, where do they defecate? ______________________
6. How do you dispose of the feces? ______________________
7. Who else uses the latrine? ______________________
8. Do you use the latrine?  □ Yes □ No
9. If not, why not? ______________________
10. Do you think young children's feces are harmful in any way?  □ Yes □ No
11. If yes, why? ______________________
12. Have the children had diarrhea in the last two or three days?  □ Yes □ No
13. What caused it? ______________________
14. How did you treat it? ______________________
15. Who else has suffered from diarrhea in the last two or three days? ______
16. How was it treated? ______________________
17. Where do you get your water from? ______________________
19. What is it used for? ______________________
20. Do you bear water before drinking or other use:  □ by filtering □ by allowing it to settle □ by pouring ash in and allowing it to settle □ by boiling □ by other means?
21. Do you pay for water? How much? ______________________
22. When do you wash your hands with soap/ash/other local soap alternative? ______
STRUCTURED OBSERVATION CHECKLIST


Related to Water

1. The available water sources? □ well □ spring □ reservoir/dam □ rain water □ seasonal pond □ public stand post/tap/fountain □ hand-dug well □ other
2. Protection of water sources? (indicate which ones): □ yes □ semi-protected □ no
3. Distance of water sources from people's homes? □ <100 meters □ 100-500 meters □ <1km □ 1-2 km □ 3-5 km □ 6-7 km □ >8 km
4. Activities that take place at or near the water source: □ washing water containers □ washing clothes □ bathing/washing self □ watering animals □ other
6. Utensils (and means) used for fetching water? ..........................................................
7. How is water transported from the source to the home? ............................................
8. Is water treated at the source, and if so, how? □ by filtering with a piece of cloth □ by chlorination □ by other means
9. How is drinking water stored in the home? ............................................................
10. How is drinking water handled in the home? ..........................................................

Related to Sanitation

2. Type of contamination observed? □ infants/young children's feces □ adults' feces □ cow dung and/or other animal feces □ other
3. Did you see anyone defecating? (Who? Where? Describe) ...........................................
4. How many of the houses you visited have latrines? ......................................................
5. Where is the latrine located? (indicate reasons why, if relevant): □ inside the courtyard □ outside the courtyard
6. Observe the latrine: □ Does it have a sound superstructure? □ Is the floor safe to stand on? □ Does it have a slab? □ Is the hole small enough to be safe for children? □ Does the latrine provide adequate privacy? □ Any other features?
8. How close are hand-washing facilities (water and ash or soap) to the latrine? □ next to the latrine □ within walking distance □ inside the house.
FOCUS GROUP DISCUSSION GUIDE FOR PROVIDERS


**Moderator Checklist**

Date ____________________ Focus Group ID# ____________________

Moderator ____________________ Note Taker/Recorder ____________________

District ____________________ Urban or Rural ____________________

Village/Town ____________________

Start Time ____________________ Finish Time ____________________

No. of Participants ____________________

[NOTE: Please make sure all participants have read and signed the Informed Consent Form]

**Introduction**

Hello and welcome to this discussion. My name is _____________ I am a researcher with the USAIDfunded project which is called the Partners for Health Reformplus (PHRplus) Project. The PHRplus project has been working closely with the Government of Albania to investigate ways to improve the provision of primary health care services, including health financing reforms. We are conducting a study that aims to improve health care financing and delivery in Albania. As part of this study, we would like to discuss your experiences with and opinions about things or money given to public health facility staff for services in cases where payment is not required by the government. We are talking about supplementary or “informal” payment. We are not talking about official fees. I will be facilitating the discussion and my colleague _____________ will be taking notes. The discussion will also be audio taped. No one will have access to these tapes except the research team, and none of you will be identified by name, to ensure your privacy. We would also like to request that the information we talk about during this discussion not be shared with or repeated to anyone outside of this group when we are finished. We would like you to read this form, which explains the study and your voluntary participation in it. If you agree to participate in the study, we would like you to sign this form before we begin the discussion.

**NOTE TO MODERATOR**

1. MAKE SURE EACH PERSON WHO WANTS TO PARTICIPATE HAS READ AND SIGNED AN INFORMED CONSENT FORM.
2. MAKE SURE TAPE RECORDER IS WORKING.

Let’s begin the discussion. There is no one right answer, so please feel free to agree or disagree with what other participants say.
1. We just introduced the topic of unofficial or informal payments. What are the words people use to describe this type of payment?
   **Probe:** What would a patient say to a provider, and what might a provider say to the patient to talk about this? What might you say to a friend to describe this?
   **Probe:** How have payments changed over time, and why? How have services changed over time? How has this influenced the payments?
   **Probe:** What is the difference between a gift and an informal payment?

2. What is your opinion about the effect of informal payments on the nature of services provided? Why do you think informal payments take place in the health sector?
   **Probe:** What are the reasons people make payments?

3. What are the reasons providers accept them?

4. How do people make the informal payment?
   **Probe:** When do people make the informal payment?

5. Can you describe whether the order of events (that is, when a payment is made, whether the informal payment is made before or after services are provided) can have an effect on the quality or on the speed of service?
   **Follow-up:** Can you give any examples?

6. How do informal payments affect the way patients and providers relate to each other?
   **Follow-up:** Can you give any examples?

7. Please describe any positive sides or good things about informal payments.
   **Follow-up:** Can you give any examples?
   **Probe:** Who benefits from informal payments, and how?

8. Please describe any negative sides or bad things about informal payments.
   **Follow-up:** Can you give any examples?
   **Probe:** Who is hurt, or what negative effects come from informal payments?

9. Sometimes people’s opinions or actions are influenced by what other people – friends, family, peers, and professional societies – want them to do. What opinions are the most influential for doctors (or nurses) regarding professional conduct?
   **Probe:** with regard to payments
   **Follow-up:** Can you give any examples?

10. What do you think is already being done about informal payments, and what is your opinion about it?
    **Probe:** who is doing something, is it NGOs, government, private clinics, citizen groups, or others?)

11. The government is planning some health reforms that will improve the health care system and make it better financed and more accessible. These reforms might include increasing insurance coverage, increasing the wages of health
Data Collection and Steps of Report Preparation

workers, and increasing official fees. How do you think the health reform process will affect informal payments?

12. What do you think should be done about informal payments?

    Probe: Who should do the things you suggest?

13. Do you have any other thoughts about informal payments?

Those are all the questions that I had for you. Do you have any questions for me?

Thank you very much for your participation.

INFORMED CONSENT FORM


Title of Study: Qualitative study of the practice of informal payments in Albania

Sponsor: PHRplus Project, Financed by USAID; Sky Tower Building Rr. Dëshmortët e 4 Shkurtit No. 5; Tirana, Albania

Research Purpose: This is a study that involves research. The topic of this research is informal payments for health care services in Albania. Many people in Albania make payments for health care services that are supposed to be provided free-of-charge to the patient. The purpose of this research is to better understand people’s perceptions, beliefs, and attitudes about these payments.

Number of People Participating: This study will involve focus group discussions and interviews with about 160 Albanians, including members of the general public, health care providers (doctors and nurses), administrators and other key informants.

Time Required and Description of Procedures: The interview or focus group will take about 1 to 1 ½ hours. The researcher will ask some general questions about informal payments in Albania. He or she may also ask some more specific questions about your own experiences. Throughout the interview, please feel free to add points or observations that seem important. The interview will be audio taped to accurately capture your responses. These tapes may be transcribed. The tapes will be kept for one year and then will be erased.

Benefits and Risks: There are no benefits to you from this research beyond feeling good about having had a chance to express opinions on this topic. The research will benefit scientific knowledge by increasing our understanding about how to design more appropriate health policies and programs for Albania. The risk of the study is that you may experience inconvenience by having to take time from your work or other daily activities to participate in the interview or focus group. For focus group discussions: The study team will keep all information gathered through this study confidential, and will request that all members of focus group discussions respect the privacy of other participants and not share information discussed during the discussions with anyone outside of the group. There is a risk, however, that other participants in the focus group may share information after leaving the group.
**Confidentiality:** When writing up the research results your name will not be used. No one outside the research team will know who was interviewed or participated in this research.

**Right to withdraw from participating:** Your participation in this research is completely voluntary and refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. If after hearing this description of the research or at any time before the interview/focus group is completed you decide you do not want to participate in the research, you are free to leave and any information collected will not be used. Also, if you complete the interview/focus group but decide later that you don’t want the information to be used; your information will be removed from the analysis up until the results are approved for publication or presentation.

**Contact persons if you have further questions:** If at any time you have questions about this research, you may contact PHRplus Project at 04-221-666, extension 119, Sky Tower Building Rr. Dëshmortët e 4 Shkurtit No. 5 Tirana, Albania (This address and phone number are on your invitation letter. If you did not receive an invitation letter, please let us know). If you have concerns about this research that you do not feel comfortable addressing to the PHRplus Project in Albania, you can contact Kim Smith at the PHRplus Project in the United States, Kimberly_smith@abtassoc.com.

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**Signature of Investigator**