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## UNIT 10 OBSERVATION METHOD

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### 10.1 OBJECTIVES

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After completing this Unit, you will be able to:

- understand what is observation method;
- how to plan this method for collecting the data;
- identify the various types and differentiate them; and
- describe advantages and disadvantages of this method.

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### 10.2 INTRODUCTION

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Observation means watching carefully. We do see many things, situations in our routine life. There may not be any motive behind seeing. What we see is mostly casual and without any purpose. But observation is different from casual seeing; it is being done systematically with a definite purpose. In the process of observation the observer uses all his sensory organs in an integrated manner. The observer obtains information about the World around him for a definite purpose. This is one of the best scientific tools to collect the data for research.

Observation has to be done carefully and systematically. On the basis of observation the data is collected, analysed, processed and used for research purpose. Most important is the need for impartial observation. The observer's experience is unique and peculiar to himself. Naturally, the data collected may be less standardised. Still this is one of the most useful methods of data collection for research especially in social sciences. Even in the libraries this method is used to understand the behaviour and attitude of the users in making use of the library services.

Observation method of collecting the data is one of the oldest and this technique is used by both the scientists and social scientists. The term observation sounds to be simple and gives an impression that the collection of data through this method is easy. But it is not true in scientific investigation. There is also a criticism that this method is unreliable but by doing it more scientifically, limitations could be overcome. This method of data collection is one of the oldest method and it can be treated as scientific only when the criteria such as objectivity, free from bias, reliability and systematisation is followed.

This Unit discusses the meaning and purpose of the observation method of data collection. It also dwells on how to plan for and the different types of observation. The advantages and disadvantages are also stated.

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### **10.3 MEANING AND DEFINITION**

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Every human being observes the things around him, many times it is casual and without any purpose. They observe it because it is in front of them. As seeing is not planned and concentrated the observer may not be able to remember what has happened and even what is remembered could not be in detail. The observation takes place in natural situation without any controls imposed by the observer on the situation. It helps to collect the data as it occurs without any interference.

Complete and detailed data is collected and recorded through observation of a phenomena or behaviour. However, it needs to be planned and all the sensory organs have to be used. The data has to be collected and recorded systematically. Many disciplines/subjects including sciences and social sciences have been developed with the data collected through this method. The behavioural scientists and anthropologists devised/prepared several theories on the basis of observation. To make the data reliable and valid, the process has to be planned and the data has to be recorded systematically. There is also a need for checks and controls while collecting the data.

Observation is defined as *a planned methodical watching that involves constraints to improve accuracy (Ram Ahuja)*.

Krishna Swami defined observation as *a systematic viewing of a specific phenomenon in its proper setting for the specific purposed of gathering data for a particular study*.

Observe means *“to watch attentively in a scientific manner”*. *In an observational study, the current status of phenomenon is determined not by asking but by observing (Ronald R Powell)*.

The definitions state that watching with a definite plan / systematically a specific situation/ phenomena with a definite purpose of collecting the data helps in recording accurate data.

### 10.3.1 Purpose

The purpose of observation is to :

- to capture the human conduct as it actually happens;
- to provide more graphic description of social life;
- to study important events and situations;
- to verify and extend the generalisations or theories formed on the basis of other studies; and
- to gain insights in to the problem.

The purpose of the observation method is to collect valid data for qualitative research used in both basic and applied research.

### 10.3.2 Characteristics

The characteristics of observation method of data collection are:

- It involves both mental and physical activity. The observer may see many things but attention has to be drawn only on the items useful / relevant for the study.
- Observation is made on selective basis i.e. the researcher selects a relevant sample.
- Observation takes place in natural surroundings.
- It helps the researcher to determine the reality by himself or herself.
- It avoids manipulations.
- The collection and recording of data is not selective, it is done as it is observed in natural environment rather than creating an artificial/laboratory environment.
- It involves few or no controls on the surroundings.
- It could be observation of fewer items/subjects.
- It must serve the formulated research purpose.

#### Self Check Exercise

1) Define observation method. Enumerate its purpose.

**Note:** i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of the Unit.

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## 10.4 PLANNING AND PROCESS OF OBSERVATION

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Observation involves human interaction and use of their sensory organs. Human beings have their own limitations as well as the observation is likely to be influenced by their background or culture. To overcome the limitations and collect factual data, there is a need for planning for observation.

The observer should examine the following questions well in advance to enable to have effective plan of action. They are:

- what should be observed;
- how the observation should be recorded;
- what type of tools and techniques need to be used;
- how to ensure accuracy of observation; and
- what type of relationship should be there between the observers and observed-how the desired relationship should be established.

The planners need to have comprehensive knowledge of the problem and techniques of investigation. They also need to have experience, on the basis of which the plans could be devised. The planning includes forecasting the situation and preparation of step-by-step procedure. Each step has to be logically arranged to get the factual data. Proper planning is essential to get the factual data through this method.

The following are the steps used for planning:

- It is essential to examine the relevance of the observation method for collecting data for the study of research problem.
- If observation method is found suitable, it is essential to identify and analyse the type of data the researcher is looking for through observation.
- The questions are to be identified, for which the answer / data has to be collected from the observation. Specific types of questions to be included and types of behaviour to be observed have to be decided at the planning stage. Adequate definitions for the kinds of behaviour have also to be developed.
- The samples for observation have to be identified.
- The researcher has to examine the conditions, events and activities, where the observation is being made. It may be essential to provide training to the observer; decision needs to be taken on the basis of the background of the observer.
- On the basis of the above, the researcher has to plan how to observe, what tools to be used, what will be the place of the researcher in the specific situation and how can the process of observation be initiated. While selecting a tool or technique the researcher should weigh their pros and cons.
- While observing, the researcher finds many variables and it is essential to observe and collect the data from relevant variables only. It is also essential to state the operational definition for each variable chosen for observation.
- It will be better to decide the timings for observation, recording procedure, and identify subjects/items to be observed. It may be worth to work out these things in detail.

- There may be a situation, where number of observers are being arranged for the purpose of observation. All of them may not be trained nor equally knowledgeable for the chosen purpose. Therefore, it is essential to train them properly both theoretically and practically.
- It is also necessary to consider seriously about the validity of the observation. Therefore, the researcher may need to take measures to validate the data.

Williamson... [et al] have suggested four stages for the observer. They are:

- 1) choosing the research site;
- 2) gaining access in setting and taking a role;
- 3) jotting down notes; and
- 4) formulating the analysis.

Observation must be done under conditions which will enable to collect accurate results. The distance and light must be satisfactory. Proper mechanical aids should be chosen. The observation should have sufficient number of samples. If it is possible, the observation could be repeated through another set of observers for verification or accuracy.

**Self Check Exercise**

- 2) Discuss the points you would keep in mind while planning an observation.

**Note:** i) Write your answer in the space given below.  
ii) Check your answer with the answers given at the end of the Unit.

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## 10.5 RECORDING OF DATA

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The observer needs skills and training to observe and record the data. It is essential to have the knowledge of different types of tools used to record the data. This is mainly due to the reason that the observer is totally relied upon for amount and quality of information. He may collect the data single handedly. Therefore, he may need a background, such as knowledge of the subject, experience, adaptability, flexibility, ability to mix with others. Further, he should not mix his ideology with observation data and should be free from bias. If necessary, the observers may be given training to enable them to concentrate on the subject of study.

The observer needs to know:

- topic and background of the research;
- purpose of the observation;
- knowledge of the group / people to be studied;
- level and extent of involvement;
- environment or conditions in which the observation has to be made; and
- knowledge of tools and techniques used for data collection.

The observer has to record the observations systematically. He has to prepare schedules similar to that of other method schedules. It will help to concentrate and also prepare the method to analyze the collected data. The observer can write down the information either as a summary or in verbatim. Tape recorders or other electronic gadgets may be used to record the voice / expression / speech. It may be best to record the information but it may not be possible to use the tools directly in front of the subject. If not possible then notes may be prepared, where it may be difficult to note down each and every word. Therefore, he may note down the key words and elaborate the same as early as possible to enable not to forget the information. The expressions, facial feelings, language used, behaviour, communication, etc., play an important role in data collection. The observer has to take all these things into consideration while recording the data. For example: Some one may accept to do a work, but facial expression may show that he is not interested to do the same and accepted to do it under obligation. In such cases the expression gains lot of weightage. It may be advantageous, if the field observation log is also maintained. This could be maintained with each item under appropriate headings and notes. Subsequently, the complete and full observation record may be prepared.

The observer may also have sheets of papers with coded categories for marking. Number of instruments, such as inter-actional chronograph, audio-introspectometer, inter-actional recorder, were devised by various scientists. We can observe how tiny size cameras are being used for recording the pictures and voice of the people as a part of investigation. Even the mobile phone cameras are being used for recording the pictures as well as conversation / communication. It could be possible to also use sound recordings and video recordings. These days TV channels are able to video graph lot of things and show the same in their broadcasting programmes. Modern technology is giving enough opportunity to record group or individual behaviour, and many times it is proven information without any interpolation.

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## **10.6 TYPES**

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### **10.6.1 Participant–Non Participant**

The role of the observer / investigator is necessary to be defined. In participant observation, the investigator becomes a part of the group or phenomenon. Then the investigator become participant or member of the group and also investigates / observes the situation. He participates in all the activities and functions of the group and simultaneously observes the behaviour of the group. The investigator has to play twin roles such as observer and participant. He introduces himself in a disguised manner. To enable the group to accept him as a member, the observer has to plan how to enter into the group and being accepted by the group. The observer involves in the setting /

group, which is being studied as a research subject. The observer also shares the activities of the community studied and observes what is going on around. It allows close proximity to the subject studied; therefore it gives an opportunity for intimate study. The observation is supplemented with the interaction, conversations and interview, so that more authentic data is collected. By living with the group, the language, habits etc could be learnt by the researcher, which in turn can be used to converse in the native language and helps in free flow of the information from the group. However, to know what the subject is really doing, the observation is the best in comparison to enquiring the members of the group. Even the data collected from conversation could be validated through the observation i.e. the statements made by the members could be checked for its accuracy.

The observer's motive of collecting the data should not be known to the group. Even the researcher may find some type of role in the group, but it should be acceptable to the group. If it is known, the behaviour of the group is likely to be changed or modified or disturbed and will have impact on collecting the factual data. As a participant, the observer gets a position in the group and learns the pattern of activity. It could be possible that the period of observation could be a long term i.e. continued for months. Therefore, the range of material collected could be good and qualitative but it could be enormous in quantity. While the data is recorded the context has to be given. Participant observation method is better than many other methods of data collection. This method is used in social sciences to study the society and behaviour of its members. The type of information collected through this method would not be possible through other methods.

This type of investigation is made to study the behaviour of the groups such as inmates of jail, agricultural labor, study of tribal culture and workers in an industry in natural conditions. Even this method could be used for studying the users of the library, in terms of their behaviour in searching for information or using catalogue for identification of their relevant books. In all these cases the participation of the researcher is possible. Now there are number of research studies on behaviour of the users in accessing information in the libraries. Unfortunately, no scholar makes use of this method, instead uses the questionnaire for collecting the data.

Greater degree of participation by the researcher may also result in developing close relationship with the group. Further, he may learn to follow the behaviour pattern of the group and may get accustomed to it. In turn, the behaviour of the group may not look different and the observer may develop sympathy for the group resulting in emotional attachment with them. This type of activity may destroy the quality of information / data collected. It may be worth noting that participation becomes more difficult when one wants to get information from the different strata of the society which are antagonistic to each other or in direct conflict with each other. Based on the relationship, it is essential to decide the degree of participation and the type of relation between the observer and the observed.

This method is being used by sociologists, anthropologists, where in the observer becomes part of the group and makes the observation. In this method, certain limitations are also identified. They are:

- when the observer becomes part of the group, naturally he gets accustomed to the behaviour. it may effect on maintaining the objectivity of data.
- unforeseen factors might interfere with the observational work.

**Research Methods**

- the ego, anger, prestige of the observed may create impact on the data as well as create problems to the researcher.
- after some time the observer may get accustomed to the behaviour of the group and may fail to note the important details.
- interrelatedness of the investigator to the situation has to be taken into consideration. He/she might be influenced with the events.
- the observer needs to spend longer time and adjust to the situation, which may not be possible for a long time.
- the observation could be subjective. Possibly all the data is not possible to be recorded.
- this method could not be used for study of illegal activities.
- complete observation of each and every event may not be possible or may not be needed.

In non-participant observation, the observer, gets detached with the group and does not participate or intervene in their activities. Here he observes their behaviour and there is also a possibility that the behaviour of the subject may become unnatural /gets changed. In this type of observation, the observer is ever present but never participating. In this case both feel uncomfortable. Further, there is no standard set of relationships or role patterns for the non-member observer to follow. There is no emotional involvement on the part of the observer. The observer may need skill in recording the observations in an unnoticed manner. As stated earlier, the observer can not be a participant in a criminal activity, in such situations, this type may be useful. In this method, the facts are collected in more formal manner. May be as a non-participant observer, it is difficult to maintain the quality of information. This method could be used in Library Users studies.

Many investigators opt for quasi-participant observation method, where in both the above methods are used and involves the merits of the both the types and excludes their defects.

**Self Check Exercise**

3) Define participant observation. Enumerate the areas in LIS research suitable for participant observation

- Note:** i) Write your answer in the space given below.  
ii) Check your answer with the answers given at the end of the Unit.

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### 10.6.2 Systematic–Non Systematic

In Systematic observation, stated procedures are used for observation and recording the data has to be done following certain rules or logical approach. This data could be possibly replicated.

Unsystematic observation does not follow any rules or logic and replication becomes difficult.

### 10.6.3 Structured – Unstructured

Structured observation is organised and planned which employs formal procedure. The units to be observed have to be carefully defined. It is also necessary to define the information to be recorded, selection of data and standardisation of conditions of observation; the observer is supposed to be knowing the situation and therefore need to prepare specific plan for collection and recording the data. In this type, the categories of observation have to be developed. It is subjected to high levels of control and differentiation.

The unstructured observation is contrasting to the above situation. The participant observation could be of this type as the observer may have to observe many things for longer time and may not be able to structure his program. Further, he will depend on the natural situation, which is not in his control and difficult to structure. However, the researcher should decide the relationship between him and the group; the period of observation; type of behaviour to be observed, etc.

For an observer, it is essential to know- what should be observed; what should be recorded; how to ensure accuracy and how to check the data. It may be vital to know what type of tools can be used and how to use them. With such knowledge and background, there is a possibility of structuring the investigation.

Observation is also categorised as:

#### 10.6.4 Natural – Laboratory

*Natural observation* is made in natural settings.

While the *laboratory observation* is made in the laboratory.

#### 10.6.5 Open – Hidden

In *open observation* the identity of the researcher as well as the purpose of study are known to the participants.

In *hidden observation*, both the identity and purpose are kept hidden from the people under observation.

#### 10.6.6 Direct – Indirect

In *direct observation*, the observer merely records what occurs. No attempt is being to control / manipulate the situation.

*Indirect observation* is being made where either the subject is dead or refuses to take part in the study. The observer may observe the physical traces left behind and make conclusions about the subject. For example the police may visit the site of the crime and look for traces left by the criminal for further investigation or study.

### 10.6.7 Covert – Overt

In *Covert observation*, the subjects / group being observed are not aware that they are being observed. Participant observation could be covert observation as the observer is a participant in the group and their activities.

In *Overt observation*, the subjects are aware that they are being observed. Once the subjects know that they are being observed, there is every possibility of change in their behaviour. We can take an example of a police man’s behaviour with the accused/ criminals, while he knows that he is being observed. He will be polite and may not use abusive language.

#### Self Check Exercise

4) Differentiate between structured and unstructured observation.

- Note:** i) Write your answer in the space given below.  
 ii) Check your answer with the answers given at the end of the Unit.

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## 10.7 ADVANTAGES AND DISADVANTAGES

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The observation method has several advantages and disadvantages. The advantages are:

- It is direct and helps to study the behaviour as it appears / occurs (collected in natural environment). One need not ask any one about the behaviour but can do self watching and collect the data.
- The data collected in a natural environment or situations is reliable.
- The data may be much more accurate as it is collected out of intimate and informal relationship.
- It is one of the best methods which can be adopted in a situation where people are unable to state meaningfully, e.g. studies about the children, tribal, animals etc.
- It helps to study the whole event and therefore, may provide the opportunity to study the insights or all aspects.
- It is easy to observe in disguising rather than disguised questioning.
- It helps to collect when the respondents are unwilling to cooperate for giving information.
- It is expensive but it is also possible to collect the data on emotional reactions.
- It helps to analyse the contextual background also.

The disadvantages are:

- This method is not useful to study the past events.
- It will not help to study the opinions. It may be difficult to structure the situation.
- Another limitation is stability of the conditions. Observation is difficult under unstable conditions.
- The collected data may not be possible to quantify.
- Most difficult could be how to get entry in the group being observed, i.e., how to become participant?
- It may not be possible to study or observe everything simultaneously, and the study could be limited.
- The internal attitudes and opinions are difficult to study.
- The sample may have to be limited; unlike the questionnaire- where in number of respondents from different places is difficult to study.
- It may be essential to wait till the event takes place. For example- to study the marriage customs, one has to wait till such an event takes place.
- It is a slow, time consuming and expensive process.
- This method is difficult to apply in large social settings and there is no set procedure for observation.
- It does not offer control measures.
- Some types of behaviours are too private or personal in nature. These types of behaviours are difficult to observe. For example: participating in criminal activity or sexual behaviour etc.
- The observer's ability, consistency, knowledge, bias and familiarity influences the data collected.

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## 10.8 APPLICATION IN LIBRARIES AND INFORMATION CENTERS

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Observation method is used in libraries, the data collected is analysed, and the outcome is used for improvement of the library activities and services. Some of the sample observations are listed below:

- How do the users approach the library for identification of relevant books? Do they use catalogue or directly go to the shelf? What is the outcome of directly going to shelves? In the process, how much time is lost by them?
- What is the approach of the users in identifying the relevant reference books or information?
- How far the furniture (especially chairs, tables etc) are comfortable to the users?
- The work standards can be prepared with the observation method. For example, how many labels can be pasted in an hour?
- It is also possible to observe the accessibility of the documents / information and the satisfaction levels of the users.

**Research Methods**

- Behaviour of the users in use of various types of documents such as periodicals, AV materials etc can be observed.

Lot of research studies on information seeking behaviour is being made by the researchers in LIS. They use questionnaire method of data collection rather than observation method. Probably, if they use this method the results could be more accurate. Further, the data collected from observation may be combined with the data collected through other methods / sources and the conclusions be made, which can be used for improvement of the library.

**Self Check Exercise**

5) Give some examples of use of observation method for research in libraries.

- Note:** i) Write your answer in the space given below.  
ii) Check your answer with the answers given at the end of the Unit.

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**10.9 SUMMARY**

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Observation method is one of the most important and authentic method used for data collection. The observer uses his sensory organs and observes the behaviour / attitude of the people or a group. The observer has to plan carefully and execute the plans to collect accurate information. The observation could be supported with interaction. This method gives an opportunity to know the insights of the group and naturally, the observer will be able to get the factual data compared to other methods of data collection. Further, unlike other methods, the observer will be able to also observe the individual in a specific situation and integrate between what is being said and being done. It means, the facial and verbal expressions can be put together to understand the subject. In other methods, the data is collected from the subject and it is not known to what extent it is being practised.

The observer needs to have necessary skills, and knowledge of the tools, techniques applied in the observation. Even the investigator needs to have the knowledge of the subject, and should have an initiation to join into the group without any difficulty. If necessary, the training should be given to the observer and while choosing the observer, one has to assess and evaluate the capabilities. The observer also needs to be told about the period of time and schedules.

Observation method has several types. The types include: participant and non-participant, structured and unstructured; systematic and nonsystematic etc. Even though they appear to be different types, there is a close relationship between these categories. The type has to be chosen on the basis of the subject and environment.

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## 10.10 ANSWERS TO SELF CHECK EXERCISES

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- 1) Observation is defined as planned, systematic viewing of a phenomena or event to record its occurrence in a scientific and unbiased manner. Its purpose is to collect valid data for inference to analyze and draw inference regarding a situation to finally propose a theory.
- 2) While planning an observation, one should keep in mind the following:
  - What should be observed;
  - How the observation should be recorded;
  - What type of tools and techniques need to be used;
  - How to ensure accuracy of observation; and
  - What type of relationship should be there between the observers and observed- how the desired relationship should be established.
- 3) The role of the observer / investigator is necessary to be defined. In participant observation, the investigator becomes a part of the group or phenomenon. Then the investigator become participant or member of the group and also investigates / observes the situation. He participates in all the activities and functions of the group and simultaneously observes the behaviour of the group. The investigator has to play twin roles such as observer and participant. Areas in LIS research suitable for participant observation are:
  - Use of OPAC by users
  - Information needs and requirements of users
  - Attitude of users towards use of IT in libraries
  - Reasons for pilferage and theft in libraries
- 4) Observation can be structured or unstructured. Structured observation is planned and carried out accordingly. The conditions are known in advance and under control. Unstructured observation is not so, as the conditions are not under control. It is participant observation where the observer is part of the group to be observed.
- 5) Observation method can be used for research in libraries in the following cases:
  - Use of catalogue by users in a library;
  - Information seeking behaviour of users;
  - Reading habits of school children;
  - Attitude of users towards the use of IT in libraries; and
  - Courtesy among the library staff towards users.

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## 10.11 KEYWORDS

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- Observation** : Planned, methodical watching with a view to record accurate and objective data regarding objects, events or phenomena
- Participant Observation** : Observation where the observer is part of the observants He participates in all the activities of the group while observing them.

- Structured Observation** : It is organised and planned which employs formal procedure. The units to be observed have to be carefully defined. The observer is supposed to know the situation and therefore need to prepare specific plan for collection and recording the data. It is subjected to high levels of control and differentiation.
- Covert Observation** : In this type of observation the participants do not know that they are being observed
- Overt Observation** : In this type of observation the participants are aware that they are being observed

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## 10.12 REFERENCES AND FURTHER READING

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