

OBSERVATION AS A RESEARCH TECHNIQUE. (REFLECTIONS, TYPES, RECOMMENDATIONS AND EXAMPLES)

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Acceptance date: November 10,2022; Publication date: December 27,2022

Abstract - The purpose of this review article is to theoretically address observation as a research technique, considering its characteristics, advantages and disadvantages. In the same way, it is intended to describe the types of observations, present recommendations for the design of instruments for both participant and non-participant observation, and offer an example of design. The methodology used in this text is framed within the parameters of the interpretive paradigm and uses the hermeneutic method to understand and interpret the arguments proposed by authors such as Rosenthal and Jacobson (1968), Weber (1997), Mejía (2002), Fernández (2009). Campos and Lule (2010), Diaz (2011), Rekalde, Vizcarra and Macazaga (2014), Martínez-Cansola (2020), Rodríguez (2022) and others, who contribute to the understanding of the use of observation as a technique in scientific research.

Keywords: *Observation, research technique, types of observation.*

INTRODUCTION


In the field of research, observation stands as a crucial technique for collecting data and understanding phenomena in their natural context. By using this technique, the researcher aims to systematically identify and record what happens, without intervening or manipulating the observed environment. Considered a fundamental tool over time in various scientific disciplines, observation offers a direct and contextualized perspective that enriches the exploration and understanding of social and human phenomena. In the context of this document, the theoretical reflections associated with observation are examined in detail, highlighting its inherent characteristics, as well as its advantages and disadvantages in the research process.

In addition to analyzing the essential characteristics of observation, this document addresses the different types of observations that can be used in research. Practical recommendations are provided for the design of instruments for both participant and non-participant observation, with the aim of maximizing the effectiveness and validity of the data collected.

As a complement to these theoretical reflections and methodological recommendations, concrete examples of templates designed to facilitate the systematic collection of data in participant and non-participant observations are presented. These carefully crafted templates provide an organized structure for recording detailed and relevant observations, helping to ensure thoroughness and consistency in the research process.

1. Methodological aspects

The methodological approach adopted in this text is based on the principles of the interpretive paradigm and is situated within a qualitative approach. The hermeneutic method is used as an essential tool for interpreting the arguments presented by a variety of relevant authors in the field. These authors include Rosenthal and Jacobson (1968), Weber (1997), Mejía (2002), Fernández (2009), Campos and Lule (2010), Diaz (2011), Rekalde, Vizcarra and Macazaga (2014), Martínez- Cansola (2020), Rodríguez (2022), among others.



This methodological approach aims to facilitate the understanding of observation as a research technique, addressing aspects such as its characteristics, advantages, disadvantages, typology and recommendations for its design and application. The application of this approach allows for a deep and contextualized exploration of the observation, thus contributing to a more complete understanding of its usefulness and relevance in the field of scientific research.

2. Theoretical reflections, characteristics, advantages and disadvantages

It is evident that observation constitutes an essential human activity, where the individual uses his senses, highlighting sight, in order to acquire knowledge about an object of study or a specific phenomenon.

Observing differs from simply looking, as it involves adopting a posture and a particular way of seeing, thus constituting a gaze that shapes and creates the reality that is observed. When observing, questions are asked and what is being observed is questioned (Fernández F., 2009).

In general terms, observation is defined as a descriptive task that seeks to reveal the nature of things and understand the context prior to any intervention. However, observation is also conceived as an active process that involves the mental selection and classification of what is perceived, thus serving as a means to organize and structure the information obtained.

In the vast realm of research, some consider observation as a method, while for others it is a technique. Although they share similarities, there is a fundamental distinction between both of them. The method is mainly influenced by the area of study of the research, while the technique is adaptable regardless of the specific field. In the context of this document, we define observation as a technique which, by using specific resource, facilitates organization, coherence and efficiency during the development of an investigation. Therefore, the structure and coherence of this technique adjust to the method which is being used.

In the philosophical context, it is argued that observation constitutes the process by which the individual purifies sensory information through thought, including ideas, judgments and reasoning, which enables him to build his understanding of the world. When referring to processes in observation, it is crucial to understand that they are logical and deliberate sequences that unfold in a specific temporal and spatial framework. These processes can extend for days, weeks or even months, depending on the scope, experience and objectives of the researcher regarding the phenomenon, object or event that is being analyzed (Campos and Lule, 2010).

Observation according to Weber (1997) adopts a comprehensive-explanatory approach, which conceptualizes social relationships as meaningful actions. From this perspective, the construction of the object of study involves the formulation of ideal types which represent possible relationships through a causal explanation of human actions. The knowing observer perceives reality partially, using ideal types as interpretive tools. Therefore, objectivity emerges from the interpretation and application of these models. The understanding of reality is achieved through the abstraction of typical features, considered as rational models of behavior.

Mejía (2002), in the text "Second Order Social Research Perspective", maintains that the observation process is not limited only to the perception of sensations, but also involves the active application of theoretical frameworks that facilitate the selection of data from reality. Furthermore, he argues that the dynamics of observation are not simply reduced to the interpretation of the data per se, but rather acquire meaning primarily through the prior theoretical structures in which it is embedded and finds meaning. Consequently, it proposes that external reality be understood as a structured interpretation that has meaning.

According to the methodologists Campos and Lule, (2010) and Díaz (2011), among the main characteristics of the observation, the following stand out:

- It is an inherent ability of the human being that is used through sight.
- Its application is influenced by the perspective and knowledge base of the observer.
- It is a method of perception that facilitates the acquisition of information about the world.
- It can be carried out directly through the visual attention of an individual or using tools such as lenses, machinery, computers, microscopes or telescopes.



- Observation can arise spontaneously, without the prior intention to observe, or it can be planned and structured, following a series of steps to investigate and understand a specific object or phenomenon.

Advantages and disadvantages of observation

Social researchers Campos and Lule (2010) point out that observation, as a research technique, has both advantages and disadvantages, which are detailed below:

Advantages:

- Provides detailed and accurate information about behavior.
- It is a flexible technique that adapts to various environments.
- It does not require the active participation of the subjects studied.
- It is an economical option and easy to implement.

Disadvantages:

- It can be subjective and influenced by the researcher's beliefs.
- Requires advanced observation and analysis skills.
- Generalizing data from observation can be complicated.
- Consume time as a data collection method.

3. Types of observations

Researchers such as Rosenthal and Jacobson (1968), Rekalde, Vizcarra and Macazaga (2014), and Martínez-Cansola (2020), in their discussions about observation as a research method or technique, have proposed the following typology: participant observation, observation non-participant, naturalistic observation and structured observation.

Participant observation: In this type of observation, the researcher actively engages with the group or context under study, participating in its activities and adopting its perspective. This approach allows the researcher to gain a deeper understanding of the group or context, as they can observe interactions and dynamics that would be difficult to capture from an external position (Rekalde, Vizcarra and Macazaga, 2014).

This type of observation is characterized by providing the researcher with a series of useful data to understand the expressions, feelings, interactions and activities of a particular group of individuals. It is useful to analyze individual discourses and reach particular conclusions according to the cultural composition of each group. It is the most used technique in field work carried out in the social sciences.

Non-participant observation: In this approach, the researcher observes from an external position, without directly interacting with the group or context under observation. This technique is characterized by its objectivity, since there is no risk of the researcher influencing the behavior of the participants. According to Rodríguez (2022), non-participant observation, also known as external observation, can manifest itself in two modalities:

- **Direct observation:** In this modality, the researcher is in the field, but does not interact directly with the group under study. The situation is observed in real time without directly intervening with the event. To do this, instruments such as journals, records of chronological events and checklists where notes or relevant aspects are filed can be used.
- **Indirect observation:** In this modality, the observer relies on documentary sources such as files, newspapers or videos.

One of the main advantages of non-participant observation is that it allows the researcher to maintain a more objective vision by being directly detached from the observed phenomenon. This technique is effective for studying demonstrations or social gatherings, however, its disadvantage lies in the fact that, as it is physically distanced from the object of study, it is not suitable for investigating social structures or activities that require more direct participation to collect useful data in this type of study.

Naturalistic observation: (The behavior is identified in its natural context, without intervention by the researcher).

Naturalistic observation is constituted as a research technique that is based on the direct observation of subjects, whether people or animals, in their natural habitat, without intervening in a way that could disturb their usual behavior and preventing any external interference that could alter it.

Therefore, it is essential to maintain discretion during naturalistic observation, avoiding influencing the environment or interactions with the researcher's presence. A paradigmatic example of this type of observation is one in which the individual is not aware of being observed, which prevents his behavior from being affected by the presence of an external observer. The primacies of this orientation are evident: authentic and unvaried results are achieved. The observed behavior faithfully shows what happens in the natural environment under these circumstances (Martinez-Cansola, 2020).

Structured observation: (Behavior is observed using a predefined guide or protocol).

Structured observation is an analytical tool used to examine the behavior of people, groups or communities. This approach is based on collecting data according to a predefined observation plan, which details the behaviors to be examined, the instruments to collect information, the observation procedures, as well as the specification of the contexts where the observation will be carried out.

Developed by Rosenthal and Jacobson in 1968, Structured Observation focuses on the systematic observation and measurement of individual behaviors, thus allowing the evaluation of performance in specific environments such as the classroom, office, or home. This method provides relevant data on specific behaviors of the subjects, even those considered inappropriate.

4. Recommendations for the design of participant observation instruments

Below are a series of useful recommendations for the design of participant observation instruments, specifically aimed at characterizing the perception of security at the Oswaldo Quintana school, located in the city of Valledupar:

- The specific aspects that you want to observe in relation to security at school must be defined, which could include the presence of security personnel, physical security measures such as cameras or fences, behavior of students and staff, among others. .
- It is advisable to create a form or template that can be used to record observations systematically. This template should include fields for the date, time, location within the school, description of what was observed, and any relevant comments.
- It is advisable to divide the observations into categories in order to facilitate subsequent analysis. For example, they could be categorized according to the presence of security personnel, the perception of security by students, the implementation of security measures, etc.
- In addition, it is suggested to design guiding questions for participatory interviews, aimed at students, teachers, administrative staff and parents, with the aim of obtaining detailed information about their perception of safety at school. Some suggested questions might include:
 - How would you describe security at Oswaldo Quintana School?
 - What security measures do you consider most effective?
 - What aspects do you think could be improved to increase safety at school?
- It is recommended to keep a reflective journal where you can record your own impressions and reflections on what you observed during the process. This will help contextualize the findings and identify potential biases or subjective interpretations.
- It is essential to obtain the informed consent of the people who participate in the interviews or who may be observed during the process. The purpose of the study and how the information collected will be used should be clearly explained.

The researcher must keep in mind that the key to a good participant observation instrument is the flexibility to adapt to changing situations and the ability to capture a wide range of perspectives and experiences.

5. Example of participant observation template:

Identification (suggested title, date of exercise, name of observer, and role of observer)

Title: Perception of Security at Oswaldo Quintana School

Observation Date:

Observer Name:

Observer Role (e.g. student, parent, teacher, administrative staff, etc.):



1. Environment and Context:	
Location: (Description of the area of the school where the observation is being carried out)	
Time of day: (indicates the time the observation is being carried out)	
Observed activities: (brief description of the activities that are taking place in the environment)	
2. Security perception:	
Personal feelings: (Ask the person who is being observed), simple questions: How do you feel about safety in your school? What aspects in the school contribute your your feeling of safety? Is there any aspect of school which makes you feel unsafe?	
3. Observations of the facilities and security measures:	
Describe the facilities of the school in terms of safety (e.g., fences, security cameras, security personnel).	
Key question, e.g.: do you consider the security measures are adequate to maintain safety at school?	
4. Social interactions:	
Relationships:	
Observe interactions between students, staff and other members of the school community.	
Key question, e.g.: How do these interactions influence the perception of safety of students and staff?	
5. External factors:	
Perception of the external environment:	
Key questions, e.g.: How do students and staff perceive security around and outside he school campus? Are there any specific concerns about security in the área surrounding the school?	
6. Final Comments:	
Additional observations:	
Space for any relevant comment about the perception of safety in the school.	

The use of this template will contribute to the organization of participant observations and the collection of detailed information about the perception of safety at the Oswaldo Quintana school in Valledupar, from various perspectives within the school community.

Recommendations for the design of non-participant observation instruments

Useful recommendations are presented below for the design of an effective non-participant observation instrument, focused on the study of the behavior of students and the teacher of Universal History in grade 601 of the Oswaldo Quintana Educational Institution, specifically focused on the dynamics of the classroom, the interactions between students and teachers, and the pedagogical strategies used:

- **Define Objectives:** Before designing the instrument, it is essential to have a clear understanding of the aspects you want to study. Setting objectives precisely will make it easier to focus your observation.
- **Identify Relevant Variables:** Determine the specific variables important to the study, such as student participation, the clarity of the teacher’s explanations or the use of teaching resources.
- **Organize the instrument into categories that reflect the aspects to be studied,** such as "Student-Student Interactions", "Student-Teacher Interactions" and "Pedagogical Strategies".



- Provide specific descriptors within each category so that observers can record what was observed accurately.
- Consider the inclusion of measurement scales to quantify certain aspects, such as the level of student participation or the effectiveness of pedagogical strategies.
- Be Objective and Non-Intrusive: Design the instrument so that observers can remain objective and not influence the behavior of the participants.
- Conduct pilot tests before applying the instrument in the real study to identify possible problems and make necessary adjustments.
- Protect the confidentiality of the participants when designing the instrument, avoiding revealing information that could identify them.
- Plan how the data collected before observation will be analyzed and interpreted, defining clear criteria and considering how the findings will relate to the research objectives.

Following these recommendations, the researcher will be able to design an effective non-participant observation instrument to study the behavior of the students and the teacher of Universal History in grade 601 at the Oswaldo Quinta Educational Institution, focusing on classroom dynamics, interactions and interactions. pedagogical strategies used.


Non-participant observation template example:

Template to record non-participant observations of the behavior of students and the teacher of Universal History in grade 601 at the Oswaldo Quinta Educational Institution: (take notes on classroom dynamics, interactions between students and teachers, and the pedagogical strategies used)

Identification: the following must be recorded:

Type of Observation Record: Non-Participants in the Classroom
 Educational institution:
 Degree:
 Subject: Universal History
 Observer:
 Observation Date:
 Observation Start Time:
 Observation End Time:

1. Description of the classroom:	
Desk distribution.	
Didactic material distribution.	
Environmental conditions (lights, temperature, noise, etc.).	
Observations: Interactions between students and teacher:	
Type of interaction (question-answer, explanation, debate, etc.).	
2. Participants involved.	
Nature of the interaction (positive, negative, neutral).	
Topic or content discussed.	
3. Observations: Classroom dynamics	
Classroom structure (beginning, development, closing)	
Use of didactic resources (board, projector, printed material etc.).	
Student participation (active, pasive, absent).	
Level of student’s attention.	
4. Observations: Pedagogical Strategies used:	
Teaching method used (expositive, participative, collaborative, etc.).	



Use of examples, practical cases, multimedia.	
Strategies to keep discipline and order in the classroom.	
Feedback by the teacher.	
Additional notes or comments: (Space to add any relevant information about classroom dynamics, observed interactions and pedagogical strategies used during the observation session.)	

It is worth remembering that it is crucial to be discreet when carrying out these observations, so as not to interfere with the natural behavior of the students and the teacher. It is recommended that you use this template as a guide and adjust the fields according to the specific needs of your study.

CONCLUSION

In conclusion, observation as a research technique emerges as a versatile and interpretive resource, providing the opportunity to explore and understand phenomena from a direct and contextual perspective, which enriches the validity and depth of the results. Given its ability to capture the complexity of human behavior, observation becomes indispensable for researchers from various disciplines. By mastering this technique and its multiple strategies, valuable information can be obtained that improves the understanding of social dynamics and surrounding phenomena.

Taking the above into account, this article was designed with the purpose of reflecting on observation as a research technique, thoroughly exploring its characteristics, advantages and disadvantages. In addition to analyzing the different types of observation, such as participant, non-participant, naturalistic and structured, recommendations are also provided on how to design effective instruments for both participant and non-participant observation. These recommendations range from clearly defining observation objectives to data organization and adaptability to different research contexts. Finally, concrete examples of instrument templates are presented that facilitate the practical application of the proposed recommendations.

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