

# Methods of Historical Research

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## Part I:

### **THE GREAT OUTLINES OF HISTORICAL RESEARCH IN THE 19<sup>th</sup> AND 20<sup>th</sup> CENTURIES**

#### *Introduction*

- Up to the 19<sup>th</sup> century the principal contributions to Historiography were from theologians and philosophers
- They used the rational scientific method which was the fruit of the scientific revolution of the 17<sup>th</sup> century and of the Enlightenment
- Both factors allowed one to know the world without the help of the supernatural

#### **1. THE GREAT HISTORIOGRAPHICAL CURRENTS IN THE 19<sup>th</sup> CENTURY**

- In the 19<sup>th</sup> century, history acquired the character of science
- Four tendencies helped this: liberalism, romanticism, positivism and historical materialism. They originated from the French Revolution and from the changes it provoked

##### **1.1. The Liberal Historiography**

- Daughter of the bourgeois revolution. Fight against feudal society
- The revolution ends once the bourgeoisie gained power
- **Guizot, Tocqueville, Henry Hallam...**

##### **1.2. Romanticism**

- At the end of the 18<sup>th</sup> century. Reaction against the rationalism of the Enlightenment
- Its bases are found in Germany, in the nationalist movements
- **Hegel, Michelet...**

### 1.3. Positivism

- It pretended to have a formation of a social science which will not confuse it with the natural sciences but will use its methods
- Knowledge based on the sources is the knowledge par excellence
- **Comte, Ranke**

### 1.4. Marxism

- Its contribution was manifested in three fields: philosophy, the analysis of the capitalist system and the social sciences
- It arose as a reaction to the system of social relations imposed by the bourgeoisie
- It understood the human evolution through the stages of progress defined by the nature of the relations of production among men
- **Marx** introduces the concept of “social class”

## 2. THE GREAT HISTORIOGRAPHIC CURRENTS IN THE 20<sup>th</sup> CENTURY

- In the 20<sup>th</sup> century, one observes a profound theoretical and methodological renewal
- Three tendencies contributed to this work: The Annales School, Marxist renewal, New Economic History, and Area Studies
- There was a tendency towards a Total History

### 2.1. The Annales School

- What, in the beginning, was a historiography school around a magazine, was converted into a germ of different currents
- Its founders were researchers close to economic and social history
- They used methods of other sciences (Economics, Anthropology, Sociology)
- Annales went away from narrative history and political dominance. It tended towards total history
- **Henry Berr, Bloch, and Febvre** (founders)
- **Vicente Vives, Bradel** (consolidation) 1950s
- **From 1960** (the fields of study were expanded: rural history, history of institutions)
- Criticisms of Annales School

- Lack of reflection. It has valued more the use rather than the social project and it has not succeeded in elaborating a consistent theory. **Josep Fontana**
- It has left behind the reflection theory in favor of monographs

## 2.2. Marxist Historiography

- Preoccupation with socioeconomic problems, study of popular class
- Marxism became the antagonist of historicism
- For historical materialism there exists a relation among the economy, organization and ideology of a society

### 2.2.1. *Influence of Russian Revolution (1917)*

- With the Russian Revolution, theory is placed at the service of the state
- Stalinism supposed a subordination of history to politics
- The economist tendency became acute, which reduced all historical manifestations to reflections of economic life
- **Marx, Engels, Stalin** and **Lenin** were the obligatory reference

### 2.2.2. *From WWI*

- In the **Soviet Union**: the Triumph of dogmatism, only official arguments are accepted
- In **Germany** and others: Triumph of Stalinist concepts (Stalinist Economics)
- **Lukaes, Korsch, Gramsci**

### 2.2.3. *From the second half of the century*

- Its principal preoccupations are the problems related to the relation among structures and superstructures
- The economic is subordinated to the social
- The group of historians of the Communist party: **Hosbawm, Thompson, Hill**

### 2.2.4. *Recent Marxist Historiography*

- **Pierre Vilar** formulates the need of a Marxist history which offers a global vision
- His monographs intended to escape dogmatism

### 2.2.5. *Conclusions*

- Historical materialism has exercised influence in history as well as in science
- It has stimulated the study of processes and social movements
- It has studied the problems of interpretation

### 2.3. **The New Economic History**

- At the start of the 20<sup>th</sup> century economic history became an independent discipline
- From 1903, it started to be introduced in universities
- Definitive launching from 1918 in France, USA and Great Britain
- **Schumpeter** exposed that together with economic conditions one has to take into account other global historical factors. The theory of economic development
- The Quantitative History: **Labrousse**
- History appears as a field of economic history. **Marczewski**
- This method implies the use of material statistics which could be scarce

### 2.4. **Area Studies. Other contemporary trends**

It appears in the USA. Analysis of international relations and study of the region in order to explain its role in the international context.

- **Ratzel** was the first to establish the relation between man and soil
- Geographic knowledge to study the evolution of societies
- Flexibility in the needed disciplines to create an Area Study
- **Duroselle** thinks that at least History, Geography and Sociology are needed
- In Area Study, the smallest area with international personality is the State
- Some sectors believe that there is a risk that an atomization will arise
- **Fontana** turns against History as ideology
- Some historians return to narrative and to traditional Historiography. **Lewis Stone**

## **Part II: METHODS OF RESEARCH**

### **1. CONCEPT OF RESEARCH**

Research is the search of an orderly, coherent knowledge, of analytic reflection and continuous confrontation of empirical data and abstract thought, in order to explain the phenomenon of nature.

The same author explains: "In order to discover the relations and basic interconnections to which the process and the objects are subjected, it is necessary that abstract thought, (concepts, hypothesis, laws, theories) ought to be sanctioned by experience and concrete reality..." (p. 7).

To research supposes the application of human intelligence to the exact comprehension of the objective reality in order to take dominion of it. Only to capture the essence of things, upon confronting it with reality, is the work of the researcher completed. The consequence of such an incremental process will increase the scientific knowledge.

### **2. KINDS OF RESEARCH**

There exist diverse treatises on the types of research. The controversies to accept the different typologies suggest the confused situations in styles, forms, focus and modalities. Rigorously, and from the semantic point of view, the types are defined as systems to obtain knowledge.

#### **2.1. According to the source of information**

- documentary research
- field research

#### **2.2. According to extension of the study**

- census investigation
- case research
- survey

#### **2.3. According to variables**

- experimental
- quasi experimental
- simple and complex

#### **2.4. According to the level of mediation and analysis of information**

- quantitative research
- qualitative research
- quasi-quantitative
- descriptive investigation
- explicative investigation
- inferential investigation
- predictive research

#### **2.5. According to the techniques of obtaining data**

- participating research
- participative research
- projective research
- research of high and low structuring

#### **2.6. According to temporary situation**

- historical research
- longitudinal or transversal research
- dynamic or static research

#### **2.7. According to object of study**

- pure research
- applied research

### **3. TECHNIQUES OF RESEARCH**

#### ***Concepts of scientific method***

The method to acquire knowledge called scientific is a rigorous procedure of logical order, whose purpose is to demonstrate the value of the truth of some statements.

The word method comes from the roots: *meth* which means end, and *odos* which signifies way. Therefore, method is the way to reach a goal.

Method and methodology are different concepts. The method is the procedure for reaching objectives. Methodology is the state of method.

### ***Techniques of investigation***

The technique is indispensable in the process of scientific investigation, because it integrates the structure by means of which the research is organized.

The technique tries the following objectives:

- to put order in the stages of research
- to make use of the instruments to manipulate information
- to take control of the data
- to orient the acquiring of knowledge

As far as the techniques of research, the two general forms will be studied: documentary technique and the field technique.

The documentary technique allows for the recompilation of information in order to formulate theories which sustain the study of the phenomena and processes. It includes the use of defined instruments according to the documentary font to which they refer.

The field technique allows the observation in direct contact with the object of study, and the scope of the witnesses which permit the confrontation of the theory with practice in the search for the objective truth.

### **3.1. Documentary Technique**

The objective of documentary research is to develop a conceptual theoretical limit to form a body of ideas on the object of the study.

With the purpose of selecting the instruments for the compilation of information, it is convenient to refer to the sources of information.

#### **3.1.1. *The primary sources of information***

These sources are the documents which register or corroborate the immediate knowledge of the research. They include books, journals, technical sources and thesis.

*Books.* In agreement with UNESCO (1964) by the name *book* is meant that publication which has more than 49 pages and *pamphlet* that which has from five to 48 pages. According to types of usage, books are classified: general type, writings in elemental form, and textbook for the study of a discipline; specialized for the professionals and researchers. Monographs are documents in which a topic is treated exhaustively.

*Journals (Magazines).* Are documents of recent information, generally specialized publications. They can be professional, technical, scientific.

*Technical Information.* In this type of information are included minutes of conferences, the news of congresses, meetings and others. They are important due to the fact that the information generally deals with current topics which affect a particular community or an interest group.

*Diaries and newspapers.* Are source of information in so far as they contain facts occurring in space and time, past and present.

*Thesis.* A thesis is an academic type of document, which demands an original affirmation about the themes of a particular study. It is expected to be a contribution and new knowledge presented as a solid system of proofs and conclusions. In the thesis is described the procedure employed in the research findings and conclusions.

### 3.1.2. *Secondary Sources of information*

This includes encyclopedias, yearbooks, manuals, almanacs, bibliography, index, among others; the data which includes the secondary sources are based on the primary sources.

### 3.1.3. *Instruments for documentary investigation*

**Bibliographic Index Card.** Commonly it is a card of 5 × 3 in. In it are annotated the corresponding data to the work and author, preferably with a base in the international code.

- *Objective.* To locate, register and search the source of information
- *Order of the data:*
  - Name of author, paternal surname, maternal name; the father's surname is written in capital letters
  - Title of the book is underlined
  - Series or collection in parenthesis as well as volume
  - If it is a translated work, the name of the translator
  - Editorial
  - Country where published
  - Year of publication
  - Number of edition. If it is the first this data is omitted
  - Total number of pages of the book



**Newspaper Index.** This kind of index card contains four types of data:

- title of publication
- name of director
- place of edition
- periodicity

**Work Index Card.** It has special relevance in the work of research. Its construction should be creative. It is the fruit of reflection, analysis, synthesis, and criticism. In general, they are on a card of 5 × 8 in. For better conservation they can be placed on pieces of paper of the same measurement.

*Objective:* To put in order, classify and register theoretical information on the object of study.

*Order of data:* bibliographical data; data for the organization of the index cards: themes, text or data.

**Quotations.** The documentary research implies organizing the content, utilizing the same work card. The references make the work more true and serious; the citations can be done within the text and annotated at the foot of the page or at the end of the work or chapter as “notes of the text.”

*Objective:* Reinforce, classify, complement, show the sources of information.

To cite the references in the text, one can use the progressive enumeration, the method of name and date, or symbolic figures.

The numbering of the references always has to be consecutive; it could be done by page, in which case the numbering is re-begun in every page, or by chapter in which case it is restated upon citing the first reference and ends at the last page of the chapter.

**Notes at the bottom of page.** The objectives of the footnotes of the page are: to cite bibliographic references or the sources of information; to amplify the explanations; to clarify or correct or suggest to the reader new possibilities of research.

**Posterior References.** When in a document there is already a mention in a footnote of a document, the posterior references are made by utilizing Latin abbreviations. Among these are: *Ibid.*, meaning “in the same place”; it is used to make known that it is about the same consulted document; it is used when there are notes of other documents in between. *Loc. cit.*, Latin which means “cited

place” is used to signify that it is about a references to the same document and page. Op. cit. means “cited work” but is used to refer to a previously cited work.

**Notes of content and references.** These are used to amplify the information, to reference other parts of the works consulted, and to send the reader to other parts of the work. The following terms and abbreviations are used: Infra which means below; Supra meaning above; Apud meaning “cited by”; Vid: “please see”; Sic: “thus” or “exactly as cited”; Et al: “and others.”

### 3.2. Field Technique

The observation instrument is designed according to the object of the study.

*Objectives of the observation:*

- Explore, to make precise aspects before the structured and systematic observation
- Gather information for interpreting findings
- Describe the facts

*Set requirements to observe:*

- Limit the objectives of the observation
- Specify the procedure or instrument of observation
- Provide continuous proofs

*Types of observation:*

De Gortauai says: “In this field observation it is necessary to distinguish the two principal classes: the participating observation and the non participating.” (In the first, various dispersed researchers participate, with the end of gathering collective reactions. In the non-participating observation, the researcher is foreign to the group. He asks authorization to stay in it and observe the facts he needs.)

*Instruments for field research:*

For the simple observation, the more common instruments are: field index; diary, registries, cards, notes, maps, diagrams, camera, drawings.

For the systematic observation, the more common instruments are: plan of observation, interviews, questionnaires, inventories, maps, registries, statistical forms, measurements.

**Field Index Card.** This index card is used to note the data collected by means of observation. In general cards of around  $8 \times 5$  in. are used. The order of the data are: name of place where the observation was done, name of the informer or informers, date, aspect of the guide of observation in the upper right hand corner. Theme at the center. Text: description of observation. Initials of the researcher at the lower left corner.

**Interview.** The survey is a search in which questions are employed for knowing the public opinion. It consists of the group of oral witness and writing of persons who are still alive. In the field investigation, in order to compile information, one can use interviews, questionnaires and exhibits, among others. The interview is one of the usual techniques in the social sciences. It can be defined as the relation that is established among the researcher and the subjects of study. It can be individual or group, free or directed.

*Objectives of the interview:*

- To obtain information on the object of study
- To describe with objectivity situations and phenomena
- To interpret findings
- To present solutions

*For the interview.* The steps are: planning, execution, control and closure:

- Planning for interview: work out the guide; define clearly the purpose of the same; determine the human resources, time and needed budget; plan the date with the interviewees, showing respect for the time of interview
- Execution of interview: prepare a positive ambience during the interview; present oneself and explain the purpose of the same; show interest and know how to listen; act naturally and not show haste; ask the questions without an implicit answer; employ a tone of modulated voice; be frank; do not extract information of the interviewee without his consent; do not overwhelm with the questions; avoid appearing aristocratic. Allow the other to explain himself fully
- Control of the interview: verify if all the questions have been answered; detect contradictions; detect lies, pointing out what is known of fact; avoid deviations from the theme and opportunities for distracting attention

- Closing of interview: end it before the interviewee gets tired; say goodbye, leaving an open field just in case it is necessary to return. If a long interview is required, program it in several sessions

**Questionnaire.** It is an instrument to collect information which is filled out by the one questioned.

- Objectives: To do uniform observation. To fix attention in some essential aspects of the object of study. To isolate problems. To make precise the required data
- Steps for the design of formularies: Delimit the objectives; make variables operative; determine the unity of observation; election of method of application; make the person collecting the interviews more efficient; proof of the questionnaire; design properly
- Rules for the design of the questionnaire: Make them short; use clear and precise terms and a simple presentation. The size should facilitate its use. The spaces to be filled in should be sufficient for the answers. Always signify the objectives to be aimed at. Preferably ask closed questions in order to precisely facilitate the process of information. Give instructions for its completion
- Types of questionnaires: By charts with objective data; of opinion; of organization and functioning. Closed questions are those that only permit an opinion to answer; open questions are those that leave full liberty to answer
- Disadvantages of a questionnaire: It can only be applied to persons who know how to read. The answers could be falsified. There could be questions without answers. They should be perfectly structured
- Advantages of a Questionnaire: It is economical. It can be sent to faraway places. It is applicable to a large group of people
- Validation of the Questionnaire: Once the questionnaire is prepared, it should be submitted to a validation for validity, reliability and feasibility. It is applied in experimental form to a small group of persons. It will have validity if it truly gathers the expected data. If independent from whom it is applied, it produces the same result, it is trustworthy. It will be operative when the terms employed generate the same interpretation

#### **4. THE DESIGN OF THE RESEARCH**

The design of the research is the plan of action. It indicates the sequence of the steps to follow. It permits the researcher to make precise the details of the work of investigation and to establish the strategies to follow in order to obtain the positive results, and at the same time to define the form to find the answers for the persons asking, which induced the study.

The design of the research is placed in the document with special characteristics, scientific language, temporal location, global characteristics and provision for recourse.

##### ***Objectives of the design of research***

The research design has also another denomination: plan, protocol, design or project of research, among others. Even if the terms are different, in essence they are similar as far as they refer to the plan of work.

##### **4.1. The Objectives of the plan of investigation are**

- To define the surrounding context of the object of study
- To make precise the object of study
- To define and limit the problem of the research and the aspects which intervene
- To select the method and techniques adequate to the object of the study
- To organize and systematize the actions to develop
- To describe the necessary resources
- To verify the feasibility of the study

##### **4.2. Characteristics of the research plan**

The plan of the research, as a document of a scientific character, has special characteristics which ought to be taken into account while developing it.

*Congruence.* This refers to the fact that there exists a logical link among the elements which form it. The title of the study manages the variables which are found in the problem, the objects, the hypotheses and the techniques and methods of analysis used which will be in function to said variables.

*The theoretical foundation.* The plan includes the theories relative to the objective of the study in an exhaustive form.

*Flexibility.* It is important that the plan considers the possibility of realizing the changes or adaptations without disorganizing the original design.

*Scientific language.* The plan ought to express itself considering scientific terminology. For example: the design is of experimental type and the technique is balanced.

### **4.3. Defects of the research plan**

Upon developing the research plan it is possible to commit errors and omit some details, which leads to defects of the plan. The errors of design are many times very costly; in others, the initial purposes of the study are not successful.

### **4.4. Some defects of the design are the following**

*Non-definitions of the theme and the purposes of the study.* These occur when the concepts employed are nebulous.

*Inadequate theoretical management.* It is the result of the theoretical ignorance relative to the object of the study, complexity of the theoretical framework.

*Complexity of the theoretical framework.* When the level of complexity of the theoretical framework used is due to the enormous volume of data on the theme, and in its turn, the analysis of such theories which summarize and relate with the problem to be investigated is not produced, the theoretical framework becomes complex.

*Imprecise technical methods.* When the researcher does not know or has an insufficient level about the investigation, it is almost sure that the discrete techniques in the plan are inadequate.

## **5. THE SCIENTIFIC METHOD**

As already explained, the scientific method is the procedure which is followed to obtain knowledge. The convergent points of the diverse authors are relative to the stages of the method. In general, it can be concluded that they are the following:

### **Stages of the scientific method**

The principal stages of the scientific method are: selection and statement of the problem which motivates the research; the structuring of a theoretical framework; establishment of the hypothesis; proof of hypothesis; results; proposals derived from the study.

### **5.1. Selection and statement of the problem**

The constant interaction with the environment permits us to observe the situations which sometimes open up a series of questions. For example, in the practice of nursing we can observe that the majority of the patients prefer the attention of certain determined nurses. Because of this, questions like this occur: Why do they prefer this particular person to take care of them? What is the quality of care that the other nurses give? Has the quality of care something to do with the recovery of the patient?

Each of the questions asked limits the wide area of problems (preferences of the patient, quality of care of nurse, quality and recovery). The questions asked are not sufficiently precise to be researched. If the questions make us troubled to a considerable degree, we should define and limit the problem of the research. For this we will consider the following aspects.

*Sources of the problems:* What is the origin of the problem? What are the professional and scientific interests of the researcher to do the study? What is the knowledge about the theme? What application should be given to the results of the investigation? On giving the answer to the preceding questions, it is inferred that the problems come from the environment, the capacity to reason, the professional interests and the results of the research.

*Types of problems:* Theoretical (whose purpose is to generate new knowledge); practical (with the objectives destined for progress); theoretical-practical (to obtain information unknown in the solution of the problems in practice). Without doubt, there exists a great number of problems which troubles us, but perhaps the greater part of those are not at the reach of everybody. The requirements to select a research problem are: experience on the theme; importance of the problem; knowledge of its management; scientific relevance; human relevance; contemporary relevance.

The requirements for elaborating a research problem are: show the manifestations of the problem; manage the variables to the minimum; define with clarity the problem; limit the aspects which the problem includes.

### **5.2. The structuring of the Theoretical Framework**

The theory gives meaning to the research. It is from the existing theories on an object of the study that new knowledge can be generated.

The internal and external validity of the research is demonstrated in the theories which supports it, and in that measure, the results can be generalized. The theoretical framework of the investigation considers:

- Explicit and implicit concepts of the problem
- Specific operational conceptualization
- Relations of theories and adopted concepts
- Theoretical analysis on which the hypothesis is dependent
- Conclusion of the implications of the theory with the problem

### **5.3. Establishment of the hypotheses**

The hypotheses are the conjectural suppositions in transition towards their confirmation. One has to depend on the theoretical analysis to form suppositions with high degree of certainty.

The hypotheses are the bond between theory and practice; they are constructed of three elements.

- the object of the study to which the unity of the analysis is denominated
- the variables which are known as properties of the various units of analysis
- the relation which is described as the logical terms which unite the objects with their relationships

Requisites to develop a hypothesis.

- construct it based on reality which is being explained
- give it a foundation in the theory relating to the fact that is being explained
- establish the relationships among variables
- be susceptible to put in experimental proof to verify its validity
- give the best answer to the research problem with a high degree of probability
- not fall into anything superfluous in its construction

Function of the hypotheses.

- to show the way to search for the objective truth
- to give impulse to the scientific work
- to systematize the knowledge
- to permit an explanation of the object of the study



- to form a connection between the knowledge obtained and what is being searched for
- to attempt at explaining through the truthfulness of suppositions which require proof

#### **5.4. Proof of a hypothesis**

**The main purpose** of the research is constituted by the proof of the hypothesis. It attempts to prove if the observed facts concur with the planted hypothesis. Generally, it has two steps: selection of technique and gathering of information.

##### **Selection of Technique**

In order to prove or refute the hypothesis it is necessary to select at least two or three techniques of research, and different types of observation of phenomena. In the social sciences, the documentary technique and field research should be applied. It is important to do the following considerations:

- To employ the technique that will be in accord with the type of hypothesis which it is desired to prove
- To design the instruments according to the selected technique
- To validate the instruments
- To determine the exhibit

##### **Gathering of information**

The most formal way of proceeding in the search of information is to follow the lines of the scientific method. Statistics are very useful in the manipulation of information. The process consist in:

- gathering of information
- tabulating them
- presenting them
- analyzing them

##### **Methods of collecting data**

*Interviews:* Sample information is collected, and so is not applicable to the total population.

*Census:* The information is gathered in a general form for the whole population.

*Registers:* The information is continuous. It is gathered at the time it is produced.

## Techniques of gathering

- Interviews
- Application of questionnaires
- Observation

## Methods of Tabulation

*Lists.* When there are few units and they are manipulated on two scales.

*Linear Graphs.* Consists of inputting on a piece of paper a stroke for each unit counted. This is not used for a large number of observations.

*Simple cards.* The information for each individual is registered on a card. The number of units is small. The classification for variables is done readily; ordering the cards in groups and categories is the result. It is recommended for use for fewer than 500 cases and not fewer than 12 units.

*Mechanized.* The tallying and printing of results can be obtained by computers.

## Presentation of data

It consists in giving the data in a summary form, which is objective and understandable. The most common forms are tables, charts and graphs.

*Tables.* Here are the principal parts of a statistical table: Title; contents: what, how, when and where. It has to be short and concise

*Charts.* They contain files and columns in qualitative and quantitative scales. Source and explanatory notes. They should appear at the bottom of the charts.

*Graphs.* The principal kinds of graphs are:

- Bar graphs. This is used to preset the distribution of frequencies of variables of nominal and ordinal scales. The length of the bar indicates the frequencies; the width the constant
- Double bars. They present data of association of two qualitative scales
- Sector Diagrams. It is used for the purpose of comparisons. It presents absolute or percentage figures in which 1% correspond to 3.61 of a circle

- Histograms. This is similar to bar graphs but without spaces between one and the other bar. It presents the distribution of frequencies in a quantitative and continuous scale
- Polygon of frequencies. This presents the comparison of distribution of frequencies in continuous scales in which the points are united with a line without interruption
- Diagram of correlation. It is employed for the study of the relation of variables in the continuous scale. The axes are of the same size and only points are placed
- Pictograms. These are used for publicity and are represented with figures which indicate quantities

## **5.5. Results**

The results of the research are incorporated into a document which usually is the research information.

### **5.5.1. *Research Information***

In the same manner as the design of the research, there exist multiple and diverse forms of presenting the research results. The detailed information contains the following aspects: preliminary section, the section of information and the section of references and appendices.

Preliminary section:

- Front page
- Acknowledgements
- Prologue
- Index of content
- List of tables

Information section:

- Introduction. It includes: general context, problem, questions proposed, the limitation and definition of the problem, objects of the study or hypotheses
- Theoretical Framework. It includes: operational concepts, theories and their relation to the problem, motive of the study, critical summary
- Methodology. It includes: hypotheses, variables, indicators and categories, methodology, documentary investigation, research field, exhibit, gathering of data, limits in the gathering of data,

description of instruments for the gathering, systematization of data and formula

- Results. These include: the graphic presentation of the results grouped by categories of analysis, proof of hypotheses and theoretical-practical comparison
- Conclusion. It includes: the summary of findings and suggestions
- Proposals. These include: theoretical arguments, methodological arguments, graphic design of proposal and preliminaries

Section of References and appendixes:

- Bibliography
- Newspapers
- Instruments utilized in the gathering of data
- The design of the research
- Tables not included in the body of the information

### **5.5.2. *Rules to develop the information***

In the redaction and style of the information it is convenient to pay attention to the following recommendations:

- Use clear, simple and precise language
- Describe and explain
- Eliminate the use of personal pronouns
- Make uniform the agreement in the use of the verbs
- Do not employ abbreviations
- Revise the draft and orthography
- Good presentation
- Use the established margins: upper margin, 1.5 in.; lower margin, 0.75 in.; left margin, 1.5 in.; right margin, 1 in.
- Write the text in double space
- Use footnotes and give credit to quotations
- Number the pages at the right hand side

### **5.6. Proposals derived from the study**

The last stage of research consists in making use of the results in order to propose, forecast, argue, describe or explain, according to the case.

What is truly important in the scientific process is to see viable solutions to the problem that gave origin to the study. In general,

the proposal of solutions do not form part of the scientific method. The research work is considered inconclusive when there are no proposed theoretical practical solutions to the problem. In order to present the proposed solutions it is convenient to include:

- Theoretical argumentation
- Methodological argumentation
- Preliminary Solutions

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