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بوشيبا بويكر
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Democratic and Popular Republic of Algeria
Ministry of Higher Education and Scientific Research



University of Tahri Mohammed; Bechar
Faculty of Letters and Languages
Department of Languages
Section of English

A Handbook for 1st, 2nd, 3rd Years LMD, and 2nd Year Master Student of
English

Research Methodology

Techniques of Organizing a Master Thesis; Formulating the Research
Problem, Procedures of Data Collection, Analysis, and Display.

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Introduction to Research Methodology

The word research is composed of two syllables, re and search. re is a prefix meaning again, and search is a verb meaning to examine closely and carefully, to test and try. Together they form a noun describing a careful, systematic, patient study and investigation in some field of knowledge, undertaken to establish facts or principles. Research is a structured enquiry that utilizes acceptable scientific methodology to solve problems and create new knowledge that is generally applicable. Scientific methods consist of systematic observation, classification and interpretation of data.

A research is not: only information gathering, or transportation of a set of facts from one location to another, or a process used to get attention. Research is a careful study or investigation which seeks to discover new fact or scientific, historical, medical information. It is also seen as a formal work taken to increase the stock of knowledge that we have in mind. A research project may also be an expansion on past work in the field. Research in any language is a problem solving activity which addresses a problem, tests hypotheses and explains phenomena.

The term ‘research’ is often defined in terms of ‘systematic inquiry’; it involves finding out something which was previously not known, or shedding light on an issue or problem (Noella and Sally 2006; p12). People often regard research as something only conducted by professional researchers. In practice, we are all engaged in one form of research or another in our everyday lives without being necessarily conscious that we are doing it (Burton ; 2009 ; p78). Research is an organized and deliberate effort to collect new information or to use existing knowledge for a new purpose. It seeks to answer worthwhile and fundamental questions by using valid and reliable techniques. It is logical and objective, using the most appropriate test/s to

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justify the methods employed, data collected, and the conclusions drawn (Ravindran ; 2009 ; p156).

This handbook is directed to the students of English including : first, second and third year of liscence in addition to second year master students mainly those who are interested in the fields of didactics and literary studies. This handook involves many important themes in research methodololy; it starts by a deep discription of research and research methodology in general. It presents the different types of research, its forms, characteristics and approaches. It also shows the researcher the way of formulating his topic clearly and precisley. It gives a detailed explanation of the various methods and tools of data collection and how to select the samples. Additionally ; it presents to the researcher the main ways of data analysis and display.

This handbook deals with the most sensitive topic in the research process, which is plagiarism, and shows the researcher how to avoid it by providing a detailed explanation of the various styles of citation : APA, MLA, CMS, and CSE. It also helps the students to prepar a reserach proposal and gives them a deep explanation of the tutorial referring to their role and that of the supervisor as well. The handook also presents to the readers the different technique of reformumating the ideas of the other investigators ; including: paraphrasing, summarizing, and quoting. Moreover, it helps the researchers to write the introduction of their research paper in a correct way involving the thesis statement, research questions and how to construct the hypotheses.

The Research Process

The research process is similar to undertaking your journey. Suppose that you are going out for a trip; before you go you have to determine where to go, and then which route to take. If you know the route you don't need to consult a map, but in case you don't, then you have to check one. Similarly in the research, you have first to know what you want to find out (i.e. research problem), or what research questions you want to answer. Then you have to decide how to answer those questions; and this requires research methodology. There are practical steps through which the research process is followed so as to find solutions to your problem and to answer the research questions. The sequence of these steps is not fixed, and by experience you can modify it (Kumar ; 2011 ; p24).

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graph LR; A[Formulate the research problem] --> B[prepare the research design]; B --> C[review the literature]; C --> D[collect data]; D --> E[determine the samples]; E --> F[analyze the data]; F --> G[write the thesis.];
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Formulate the research problem → prepare the research design → review the literature → collect data → determine the samples → analyze the data → write the thesis.

The Research Process

Steps of the research process:

The research process typically involves several steps, each building on the previous one. Below is a detailed breakdown of the research process steps :

Step one: Choosing a topic

This first step involves selecting a topic that is not only of interest to you but also explores varied perspectives within existing research. Try to be original in your choice of topic, as it will make your research more engaging,

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and if you find yourself struggling to narrow down what to work on, consult your supervisor or mentor for guidance (Kumar ; 2011 ; p34).

Step Two: Conducting a literature review

The next step in the research process would be to look for information on the subject. A preliminary search will give you an idea of the amount of literature available to support your study. Once this is done, you can undertake a more detailed review of available literature to get a comprehensive overview of existing information on your topic. This will also help you to find gaps in knowledge and identify trends and findings that will shape and guide your research (Kumar ; 2011 ; p38).

Step three: Defining the research question

Once you have chosen a topic and done your basic reading on the subject, it is time to frame a research question. Developing a research question involves finding gaps or inconsistencies in existing research and creating specific, testable statements that will address these unresolved questions. For example, researchers studying the aurora borealis may find that while there is significant research on what causes the phenomena, there are few studies on why it is being seen further south. Identifying this gap could lead to a meaningful research question about how geomagnetic storms impact the Earth and what can be done to mitigate its effects. A well-articulated research question will provide a clear direction for your study.

Step four: Creating a research design

Based on your research question, you can draw up a framework outlining research methods and techniques that you will be using to conduct your study. In other words, create a research design. Make sure to choose an appropriate research design based on available resources; it could be

qualitative, quantitative, or mixed methods. Whichever you choose, it must align with your research objectives.

For example, researchers investigating the southward movement of the aurora borealis would likely need to use a mixed-methods approach that could include quantitative data collection through satellite imagery combined with qualitative analysis of historical auroral patterns and climate conditions.

Step Five: Collecting data for study

This is a crucial step in the research process, as the accuracy, credibility, and quality of data collected from various sources will directly impact the reliability of your research findings. That is why you should choose data collection techniques best suited to your research objectives. Importantly, irrespective of how it is done – whether collecting primary data through interviews, surveys, and conducting experiments or secondary data gathered from existing studies and reports – it must be done carefully to avoid bias and errors.

For example, researchers studying the northern lights may use geomagnetic observations and atmospheric measurements to collect quantitative data on why the northern lights are being seen in wider areas. In qualitative research, the analysis might involve trying to understand how geomagnetic forces impact the Earth (Kumar ; 2011 ; p44).

Step Six: Analysis of data:

The next step in the research process is to analyze the raw data collected during the research to see if it supports or contradicts your hypothesis. Start by organizing data into relevant categories. This will help you discover patterns and trends and enable you to draw meaningful inferences.

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Keep in mind that the method used to analyze data will depend on the type of data collected. For example, researchers could use the data collected from geomagnetic observations and atmospheric measurements to evaluate how geomagnetic storms are causing the aurora borealis to become more vividly and widely viewed and how this has a much broader impact on Earth.

Step seven: Drawing inferences

Once you have analyzed the data, it is time to interpret the findings and draw conclusions. This is one of the most critical steps in the research process because it directly answers the research question. It is also important to consider what these findings mean for existing theories, practical applications, and directions for future research. At this stage, you should also acknowledge any limitations in your study and propose areas that warrant further investigation.

Taking our example further, researchers analyzing data from satellite sensors would probably find that geomagnetic storms are enhancing the intensity and geographical reach of the aurora borealis and disrupting power grids, communication systems, and satellite operations. These findings could lead to policy recommendations for mitigating these impacts and preparing for possible disruptions in digital communication systems (Kumar ; 2011 ; p62).

Forms of the research: research can be Quantitative or Qualitative

Quantitative research: relies on the collection of quantitative data (i.e., numerical data) and follows the characteristics of the quantitative research paradigm. The quantitative research approach primarily follows the confirmatory scientific method because its focus is on hypothesis testing and theory testing. Quantitative researchers consider it to be of primary

importance to state one's hypotheses and then test those hypotheses with empirical data to see if they are supported (Burton ; 2009 ; p26).

Qualitative research : relies on the collection of qualitative data (i.e., nonnumerical data such as words and pictures) and follows the characteristics of the qualitative research paradigm. Qualitative research primarily follows the exploratory scientific method. It is used to describe what is seen locally and sometimes to come up with or generate new hypotheses and theories. Qualitative research is used when little is known about a topic or phenomenon and when one wants to discover or learn more about it. It is commonly used to understand people's experiences and to express their perspectives (Glenn; 2009: p25).

Mixed research involves the mixing of quantitative and qualitative research methods, approaches, or other paradigm characteristics. The exact mixture that is considered appropriate will depend on the research questions and the situational and practical issues facing a researcher. Researchers advocating mixed research argue that it is important to use both the exploratory and the confirmatory methods in one's research (Johnson & Onwuegbuzie, 2004). All the three research paradigms are important as we attempt to solve the manifold and complex problems facing us in the field of education.

Characteristics of research:

a) Research May be Applied or Basic

The purpose of **applied research** is to solve an immediate, practical problem. **Basic Research**; doesn't necessarily provide results of immediate, practical use.

b) Research May be Obtrusive or Non-Obtrusive

Obtrusive research: where the researcher introduces conditions that influence participants, ie where the researcher manipulates the environment .

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Non-obtrusive research: where the researcher avoids influencing subjects in any way and tries to be as inconspicuous as possible (Burton ; 2009 ; p35).

- c) Research seeks to solve a problem: finds solution to a given problem.
- d) Research involves collecting new data or using existing data for a new purpose.
- e) Research is based on observable evidence or empirical evidence.
- f) *It requires accurate observation and description.
- g) *it emphasizes on the use of theories which help the investigator and support his results.
- h) It is based on objectivity rather than subjectivity.

Steps for conducting a research: research is a systematic process because it follows certain steps that are in a logical order:

- Determine the Research Problem
- Review information (literature review)
- Determine the purpose of research
- Suggest specific research questions and hypotheses
- Collect Data
- Analyze and interpreting the data
- Report and evaluating research.

Most researches begin with a general statement of the problem, or rather, the purpose for engaging in the study. The literature review identifies theories of previous research and provides justification for the study. The research question may be parallel to the hypothesis. The hypothesis is the supposition to be tested. The researcher(s) collects data to test the hypothesis. The researcher(s) then analyzes and interprets the data via a variety of statistical methods, engaging in what is known as Empirical research.

Traditional Approaches to Knowledge: there are five ways in which a research can be made:

1. *The Method of Tenacity:* here people keep the truth because they believe in it and take it for granted, eg: Algerian Revolution.
2. *The Knowledge Based Authority:* here people rely on experts to gain facts and guide their behavior, eg: Imam.
3. *The Rationalist Approach:* this one is based on thinking and deduction which can lead to useful generalization and prediction. Example: if A causes B, and B causes C; so A causes C.
4. *Insightful Observation:* this one is used by most intelligent people who are capable of collecting information from their experience, and they come to conclusion and solution from their own observation. Eg: chemists.
5. *Scientific Method:* it requires both observation and data which are collected and analyzed so as to understand a phenomenon. The scientific research requires the following steps which are usually part of most formal researches, both basic and applied (Burton ; 2009 ; p65).

Types of Research

Historical research: (describes what was-mostly nonobtrusive): it is process of searching for information and fact to describe analyze in the past. The purpose of historical research is to arrive at conclusions concerning trends, causes or effects of past occurrences. Data in this type are collected from original documents or by interviewing the eye witnesses (primary source of information) (Prabhat and Meenu; 2015 ; p52).

Descriptive research: (describes what is-mostly nonobtrusive): it describes, interprets, and clarifies what is often done in the present. It can be done by self observation or through an observational instrument. Descriptive research studies deal with collecting data and testing hypotheses or answering questions concerning the current status of the subject of study.

- **Developmental Research:** is one common type of descriptive research which involves the study of changes in behavior over a period of time.

Correlation research: (makes comparisons between two facts): its purpose is to find relationships between two or more variables in order to understand the conditions and events that we face.

Experimental research: (describes what will be mostly obtrusive): it is a research situation where at least one independent element, called the experimental variable, is deliberately manipulated or varied by the researcher. Eg: examine the complex social relationships.

Descriptive vs. Analytical: *Descriptive research* seeks to describe a phenomenon as it exists (ed). Here the researcher has no control over the variables; he can only report what has happened or what is happening. In *analytical research*, on the other hand, the researcher has to use facts or information already available, and analyze them to make a critical evaluation of the material (Burton ; 2009 ; p25).

Applied vs. Fundamental: *Applied research* aims at finding a solution for an immediate problem facing a society or an industrial/business organization; whereas *fundamental research* is mainly concerned with generalizations and with the formulation of a theory (Ravindran ; 2009 ; p75).

Quantitative vs. Qualitative: Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity. Qualitative research is concerned with qualitative phenomenon, i.e. phenomena relating to or involving quality or kind; for instance, when we are interested in investigating the reasons for human behaviour (i.e., why people think or do certain things) (Glenn; 2009; p 75).

Conceptual vs. Empirical: Conceptual research is that related to some abstract idea(s) or theory. It is generally used by philosophers and thinkers to develop new concepts or to reinterpret existing ones. On the other hand, empirical research relies on experience or observation alone; it is data-based research coming up with conclusions which are capable of being verified by observation or experiment. We can also call it as experimental type of research (Ravindran ; 2009 ; p86).

Research Methods and Research Methodology

Research is a scientific and systematic way for discovering and presenting information on a specific topic. In fact, research is an art of scientific investigation. The Advanced Learner's Dictionary of Current English lays down the meaning of research as "a careful investigation or inquiry especially through search for new facts in any branch of knowledge." It is actually a trip of discovery (Noella and Sally 2006 ; p58). Research is an academic activity which requires defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organizing and evaluating data; making deductions and reaching conclusions; and at last carefully testing the conclusions to determine whether they fit the formulating hypothesis (Kumar ; 2014 ; p89).

Objective of Research

The purpose of research is to discover answers to questions through the application of scientific procedures. The main aim of research is to find out the truth which is hidden and which has not been discovered as yet. It also seeks to test a hypothesis of a causal relationship between variables (*hypothesis-testing* research studies) (Kumar ; 2014 ; p102)

Motivation in Research:

The question of: what pushes people to undertake research? has a fundamental importance. The possible motives for doing research may be either one or more of the following:

1. Desire to get a research degree along with its consequential benefits;
2. Desire to face the challenge in solving the unsolved problems;
3. Desire to get intellectual joy of doing some creative work;

4. Desire to be of service to society;

However, this is not an exclusive list of factors motivating people to undertake research studies; many more factors such as directives of government, employment conditions, curiosity about new things, desire to understand causal relationships, social thinking and awakening may also motivate people to perform research operations (Ravindran ; 2009 ; p69).

Research Approaches:

The above description of the types of research brings to light the fact that there are two basic approaches to research: *quantitative approach* and the *qualitative approach*.

Quantitative approach: involves the generation of data in quantitative form which can be further sub-classified into *inferential*, *experimental* and *simulation approaches* to research.

Inferential approach: tries to reach and determine the characteristics or relationships of population who are questioned or observed.

Experimental approach: is characterized by much greater control over the research environment and in this case some variables are manipulated to observe their effect on other variables.

Simulation approach: involves the construction of an artificial environment within which relevant information and data can be generated. This leads to an observation of under controlled conditions (Glenn; 2009; p 132).

Qualitative approach: is concerned with making judgment or assessment of attitudes, opinions and behaviour. Research in such a situation is a function of researcher's insights and impressions (Glenn; 2009; p 56).

Research Methods versus Methodology:

It is necessary to explain the difference between research methods and research methodology. *Research methods* are all those methods/techniques that are used by the researcher for conduction of research such as: library, laboratory, field of observation, etc. In other words, all those methods which are used by the researcher during the course of studying his research problem are called research methods. *Research methodology* is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically (Noella and Sally 2006; p 96). In it we study the various **steps** that are generally adopted by a researcher in studying his research problem. It is necessary for the researcher to know not only the research methods/techniques but also the methodology (Burton ; 2009 ; p104).

Researchers not only need to know how to develop certain tests, how to apply particular research techniques, but they also need to know which of these methods or techniques, are relevant and which are not. For example, an architect who designs a building, has to evaluate the basis of his decisions, i.e., he has to evaluate why and on what basis he selects particular size, number and location of doors, windows, he uses particular materials and not others. Similarly, in research the scientist has to expose the research decisions to evaluation before they are implemented. He has to specify very clearly and precisely what methods he selects and why he selects them. Research methodology has many research methods and the scope of research methodology is wider than that of research methods. Thus, when we talk of research methodology we not only talk of the research methods but also consider the reasons behind the methods we use in the context of our research study and explain why we are using a particular method or technique and why

we are not using others so that research results are capable of being evaluated either by the researcher himself or by the readers (Kumar ; 2014 ; p78).

Research Concepts and Paradigms

The term ‘research’ is often prefixed by concepts like ‘pure’, ‘basic’, ‘applied’, ‘action’ or ‘evaluation’.

Pure or Basic

This type of research is typically oriented towards the development of theories by discovering broad generalizations or principles. It has drawn its pattern and initiative from the physical sciences emphasizing on a careful structured type of analysis. The main purpose of ‘pure’ or ‘basic’ research is to discover facts which are fundamental and important in the sense that their discovery will extend the boundaries of our knowledge in a particular area or discipline. Pure research is not primarily concerned with understanding practical problems. It is usually carried out in a laboratory or other carefully controlled situation which implies that control and precision are maintained at the cost of reality (Prabhat and Meenu; 2015 ; p 69). In recent years, most learning theories have been questioned on the grounds that studies were conducted in a controlled situation with animals as subjects and therefore the findings cannot be directly applied to human problems (Burton ; 2009 ; p98).

Applied or Field Research

This type of research is concerned primarily with the application of new knowledge for the solution of day-to-day problems. This does not mean that it is not important in its approach than other forms of research. Although applied or field research has some of the characteristics of pure research (e.g. the use of sampling techniques, inferences about the target population) its purpose is to improve a process by testing theoretical constructs in actual

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situations. Most educational researches are applied, since they aim at establishing generalizations about teaching-learning situations (Noella and Sally 2006; p157). It should be mentioned that sometimes applied research also uses experimental techniques, and hence in such research designs it is difficult to make a clear distinction between basic and applied research. However, applied research needs to be conducted in order to determine how various theories operate in the actual situation (Ravindran ; 2009 ; p65).

Action Research

The term ‘action research’ was first introduced in the fields of social psychology, social work and education. It is a type of applied social research differing from other types in the immediacy of the researcher’s involvement in the action process. Action research is more concerned with the immediate application rather than the development of theory. It focuses on a specific problem in a particular setting. In other words, its findings are usually judged in terms of their applicability in a specific situation. Action research is similar to applied research in many ways but the fundamental difference is that applied research allows generalizations of its results. Furthermore, applied research usually involves a large number of cases for studies whereas action research can be conducted in a modest way by using a very small sample (e.g. a single classroom or a group of children within it).

In recent years, action research has generated a great deal of interest in the field of education. It has been employed in curriculum development, professional development, institutional improvement and policy development. It is now widely acknowledged that limiting educational research to professional researchers alone is to take a narrow view of the educator’s role. Classroom teachers can be better decision-makers and more effective practitioners if they are encouraged to conduct action research. For example, if it is proposed to alter the organization of a school and its curriculum, it is

most useful to have one or more researchers on the staff who can monitor the effects of the changes. Thus, action research is usually conducted with the aim of implementing a change in a given situation (Ravindran ; 2009 ; p 79).

Evaluation Research

The term ‘evaluation research’ is often used to refer to the systematic procedures which are adopted over a period of time to collect and process data concerning the effectiveness of a particular program or set of events. For example, a teaching program can be evaluated at several stages. If evaluation is carried out at intermediate stages to implement changes in the program, it is called ‘process’ or ‘formative’ evaluation. Evaluation research has been widely employed in the last four decades (Prabhat and Meenu; 2015; p59). Many social action program and curriculum innovations have adopted this type of research in order to monitor the effectiveness of such program. Evaluation research highlights the symbols of measurement and scientific neutrality but attempts to minimize the influence of the behavioral science perspective (Ravindran ; 2009 ; p80).

Formulating a Research Problem

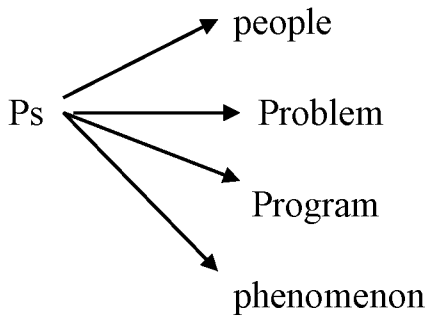
Definition: any question you want to answer, or any assumption you try to prove or investigate can be a research problem or research topic for your study. Formulating the research problem is considered the first and most essential step in the research process because it provides direction and purpose for the entire study. The research problem acts as the foundation of the research paper, and the quality of the study largely depends on how clearly and accurately this problem is defined. A well-formulated research problem helps the researcher stay focused, organize ideas effectively, and choose the most appropriate methods for collecting and analyzing data. In contrast, a vague or poorly defined problem can lead to confusion, weak results, and difficulties throughout the research process.

Before attempting to solve any issue, it is necessary to fully understand and identify the problem itself. Research problems may vary in complexity; some may be straightforward and easy to investigate, while others may involve multiple variables and require deeper analysis. The formulation of the research problem also determines the direction of the study, influencing every stage of the research process, from setting objectives and developing hypotheses to selecting research tools and interpreting findings. In addition, it helps the researcher decide whether the study will follow a qualitative approach, which focuses on meanings and experiences, or a quantitative approach, which focuses on numerical data and measurement.

Although researchers often experience confusion or uncertainty when defining their research problem, clarity at this stage makes the entire process more manageable and effective. The clearer and more specific the research problem is, the easier it becomes to conduct the study systematically and achieve reliable, meaningful results.

Sources of the Research Problem:

Research Problems investigate around the four (4) Ps:



A researcher may choose a specific group of individuals to examine issues related to their lives and experiences, or focus on a particular problem affecting them. Research may also involve studying a program or exploring a social phenomenon. Every research problem includes at least two important elements, often called the two Ps: people and problem.

In any study, the first aspect is the people who provide the necessary data and information, known as the study population. The second aspect is the problem, program, or phenomenon being examined, which represents the subject area of the research. While the study population supplies the information, the subject area contains the main issue or topic the researcher seeks to investigate and answer.

Thus, using a concept in your research, you should clearly understand its meaning and know the appropriate context in which it should be applied. It is important to use concepts accurately and correctly throughout the study to avoid misunderstanding or confusion. A clear understanding of the concepts related to your topic will help you present your ideas more effectively and strengthen the quality of your research.

Steps in Formulation a Research Problem:

1. Begin by selecting a specific field or subject area that you intend to study.
2. Develop clear research questions and, where appropriate, formulate hypotheses that guide your investigation.
3. Set precise objectives that define what you aim to achieve through the study.
4. Review your choice carefully by reconsidering whether the topic truly interests you and ensuring that you have enough relevant sources and materials to analyze it effectively.

Establishing Operational Definitions: when formulation your research problem, you may use certain concepts or items that seem ambiguous for the readers. Therefore, in your research study you must define and explain the meaning of complex terms. These are called operational definitions which are designed to remove ambiguity and misunderstanding.

Research Problems in Qualitative and Quantitative Researches: the difference between qualitative and quantitative studies starts by the way you formulate your research problem. In quantitative study you must be specific and try to narrow the degree of your study; on the other hand in qualitative research specificity is not required (Kumar ; 2011 ; p70).

Activity: on the basis of the above criteria; formulate your own research problem taking into consideration the elements listed above.

Data Collection

Observation, Interview, and Questionnaire

It is widely argued that any research work is based on data which carry the field of work. Investigators use different techniques and tools at this stage of research in order to prove their hypotheses and support their ideas.

Qualitative Data and Quantitative Data

Qualitative data is data that is mainly words, sounds or images.

Quantitative data is data that is mainly numbers.

Structured and Unstructured Data

Structured data is organized, unstructured data is relatively disorganized.

Structured data can be produced by closed questions,

unstructured data can be produced by open questions.

Definition of Data Collection: it is the process of gathering information from various sources in order to supply your research paper with ideas and support your findings. There are two types of data; these are:

Primary data: are those collected directly for the first time by the researcher or investigator. They are obtained firsthand from original sources rather than taken from existing studies. Common methods of collecting primary data include observation, questionnaires, and interviews. These techniques allow the researcher to gather original and specific information that is directly related to the research topic. . Primary data are two types:

Observational data refers to information that the researcher directly sees and hears during the study. It is collected through the process of observation, where the investigator personally watches behaviors, events, or situations as

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they occur. This type of data relies on the researcher's own perception and recording of what is happening in the natural setting.

Elicited data: refers to information that is obtained from participants in response to questions posed by the researcher. This type of data is gathered through methods such as interviews or questionnaires, where individuals are asked to provide their opinions, experiences, or knowledge. The researcher actively requests the information, and the participants supply the responses needed for the study.

Secondary data: Secondary data refers to information that has already been collected by other researchers, authors, or organizations and is later used for a new study. Instead of gathering original data, the researcher relies on existing sources to obtain relevant information. These data are usually found in secondary sources such as books, academic journals, newspapers, reports, and articles. Secondary data helps provide background information, support analysis, and complement primary data in research.

Collecting Data Using Primary Sources:

1. Observation: is a systematic method of watching and listening to interactions or events as they occur. It is particularly useful when data cannot easily be obtained through face-to-face interviews or written questionnaires. This approach allows the researcher to directly witness behaviors, actions, and interactions among individuals, providing valuable and realistic insights into the phenomenon being studied. There are two types of observation: Participant Observation which is a qualitative research method where the investigator immerses himself in a community or social setting. He actively participates in daily activities while observing behaviors and interactions, researchers gain a deep, "insider" perspective of a group's culture, beliefs, and practices.

Non-Participant Observation is a qualitative research method where the researcher observes subjects in their natural or controlled environment without actively engaging in the activities or interacting with the group. It prioritizes objectivity and ensures the observer's presence does not alter natural. Observation can be made under: *Natural* conditions; that is observing a group without interfering in its normal activities is known as observation under natural conditions. Or *Controlled* conditions via involves introducing a specific stimulus to a group and then observing and recording their reactions to it.

Recording Observation:

Observation is done in order to collect information; therefore any information that interests the researcher must be recorded and analyzed later. There are many ways of recording observation; the selection of the method of recording depends on the purpose of observation. The way observation is recorded determines whether your study is qualitative or quantitative. In qualitative study, narrative and descriptive recording are more appropriate; but in quantitative study the researcher has to record his observation in a numerical or categorical manner (Prabhat and Meenu; 2015 ; p 65).

In narrative or descriptive recording, the investigator records a description of the interaction using his own words and style; he can write the most important notes and later expands them into detailed ideas. In recording observation through categorical or numerical scale, the researcher classifies down his observation into categories depending on the type of interaction such as: passive/active; introvert/extrovert; always/sometimes/never, agree/disagree. Observation can be also recorded through a camera video or other electronic device, such as tape recorder, telephone, and analyzed later. This technique allows the investigator to listen to the interactions many times

before drawing results though not all the people accept to be viewed through a camera video or recorded through a recording device.

Limitations of the Observational Method:

The core problems in observation stem from subjectivity, a vulnerability to confounding variables, and the artificial alteration of subject behavior. The primary challenges and scientific limitations of this approach include:

1. Subjectivity and Bias :

- **Observer Bias:** Researchers often have preconceived notions or expectations. This can cause them to unconsciously misinterpret data, selectively record specific behaviors, or overlook pertinent details.
- **Observer Effect (Hawthorne Effect):** Subjects frequently modify or improve their behavior simply because they know they are being monitored.
- **Selective Perception:** Human memory and perceptual limitations prevent an observer from capturing every detail in a complex, dynamic environment without external recording tool

2. Methodological & Scientific Flaws

- **Inability to Establish Causation:** Unlike controlled experiments, observational studies cannot manipulate variables. Because exposures are not randomly assigned, researchers face the risk of **confounding bias**, where unmeasured, hidden variables are the true cause of an observed relationship.
- **Lack of Explanatory Power:** Observation typically details *what* is happening, but it is deeply limited in explaining *why* subjects are behaving that way.

- **Spurious Correlations:** When reviewing large observational datasets, researchers are highly susceptible to finding false, non-causal relationships.

3. Logistical and Practical Barriers

- **Ethical Dilemmas:** Covert observations (where participants are unaware they are being watched) pose severe concerns regarding informed consent and personal privacy.
- **Time and Resource Intensive:** Observing real-world behaviors often requires extensive physical presence, travel, and costly recording equipment, making it far less scalable than standard questionnaires.
- **Restricted Scope:** The method is limited to present occurrences. It cannot be used to gather primary data on past events unless historical records or traces are available

2. Interviews: are conversations between an investigator (interviewer) and a respondent ('interviewees', 'informants' or 'sources') in which questions are asked in order to obtain information. They seek to collect data and narrative information in order to better understand the respondent's unique perspectives, opinions, and world-views. Interviewing is a fundamental methodology for both quantitative and qualitative social research and evaluation.

Types of Interviews: There are several types of interviews, often differentiated by their level of structure.

1. Structured interviews follow a fixed set of questions asked in a specific order, usually with closed-ended answers such as yes/no or multiple choice. Because all participants answer the same questions in the same way, the data is easy to compare and analyze, making this approach highly suitable for

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quantitative research. It also improves reliability and reduces bias since conditions remain consistent across participants. However, structured interviews are often rigid, less flexible, and may not allow participants to fully explain their responses, limiting the depth of information collected. They are best used when the researcher has a clear focus, limited time or resources, and needs standardized data for comparison.

2. Semi-structured interviews combine both structured and unstructured approaches. The researcher prepares a set of guiding questions or themes, but the order and wording can change depending on the conversation. These interviews usually include open-ended questions, allowing participants to give detailed and meaningful responses. This flexibility helps the researcher explore new ideas and gain deeper insights while still maintaining some consistency across interviews. However, because questions may differ between participants, analyzing patterns and making generalizations can be more difficult. Semi-structured interviews are ideal for exploratory research and for researchers with some interview experience.

3. Unstructured interviews are the most flexible type. There are no fixed questions or order, and the discussion develops naturally based on the participant's responses. This approach allows for very rich, detailed, and in-depth information, making it useful for exploring complex topics or understanding personal experiences and emotions. However, it requires strong interviewing skills, as there is a risk of asking biased or leading questions. It can also be difficult to compare responses or draw clear conclusions due to the lack of structure. Unstructured interviews are best suited for experienced researchers working on exploratory studies that aim to deeply understand a topic.

Advantages of Interviews: interviews are:

- * More appropriate for complex topics and situations and the interviewer can prepare his interviewee before asking him the questions.
- * More useful for collecting deep data and more detailed information about personal feelings, perceptions and opinions
- * Interviews involve people in scientific researches and make them get out all the knowledge they store in their minds.
- * Group interviews save time and allow people to build on other's responses. .
- * they allow more detailed questions to be asked
- * Respondents' own words are recorded
- * interviews allow the investigator to explain ambiguous questions
- * In interviews the possibility of incomplete answers or un-answered questions will be avoided.
- * The interviewer can collect additional information about the interviewee's personal characteristics and environment which is often of great value in interpreting results.

Disadvantages of Interviews: But:

- * Interview is an expensive method mainly when the interviewees live over a wide geographical area
- * interviews are more time consuming especially when the number of participants is large and recalls upon the respondents are necessary.

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- *The interviewer can sometimes be affected by the interviewee.
- *The results of multiple interviews may contradict each other or be difficult to analyze.
- * There is a possibility of research bias (making unfair judgments)
- * Certain interviewees such as important officials or executives or people in high positions in society may not be easily contacted under this method and to that extent the data may be inadequate
- * Interviewing at times may also introduce systematic errors.

For successful implementation of the interview method, interviewees should be carefully selected, and the interviewers should be trained, honest, hardworking, unbiased and must possess the technical competence and necessary practical experience. He should be able to create friendly atmosphere of trust and confidence, so that respondents may feel at ease while talking to and discussing with him. The interviewer must ask questions properly and intelligently and must record the responses accurately and completely. At the same time, the interviewer must answer legitimate question(s), if asked by the respondent and must clear any doubt that the latter has. The interviewer should not show surprise or disapproval of a respondent's answer but he must keep the direction of interview in his own hand, discouraging irrelevant conversation and must make all possible effort to keep the respondent on the path.

3. Questionnaire

A questionnaire is a research instrument consisting of a set of questions designed for gathering information from individuals, either in paper format or online. It is utilized in various fields, including academia, government, and market research, to collect data quickly from a large audience. When distributed to a representative portion of a population, it is referred to as a questionnaire, while distribution to the entire population is termed a census. Questionnaires typically employ two types of questions: closed-ended questions, which provide predetermined answer choices, and open-ended questions, which allow participants to express their thoughts in their own words.

While closed-ended questions facilitate rapid data collection, they may not accurately assess knowledge, as participants might guess answers. Open-ended questions offer deeper insights into participant knowledge and opinions but require more time and can risk participant fatigue if overused. Researchers often conduct pilot studies to refine questionnaires before larger distributions. Traditionally, questionnaires were administered in person or via mail, or online but many now leverage online platforms, though they face challenges regarding participation rates. Overall, questionnaires are valued for their efficiency and ease of use, enabling researchers to analyze data systematically and derive meaningful conclusions. (Burton ; 2009 ; p12).

Formulating effective questions: the way you ask questions, determines the number of responses; therefore when writing your questions:

* use simple and clear sentences which can be understood by all respondents who have different levels of education. (eg. Is anyone of your family is dipsomaniac?)

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* don't use ambiguous or too long questions because you can't explain their meaning since you are not with your respondents. (eg. Is your job difficult because you are expecting a baby?)

*don't ask double-barreled questions which mean a question within a question, here the respondents may not know which question he should answer. (eg: how often and how much time do you spend in each visit?)

*don't ask leading questions, whose structure leads the respondent to answer in a certain direction. (eg: employment is increasing, isn't it?)

* Questionnaires should also be as short as possible.

Advantages of Questionnaires: questionnaires are:

*easier and less time consuming to answer by the respondents and to analyze by the researcher.

* Questionnaires can be sent by mail and later collected or returned by stamped addressed envelope.

*questionnaire requires respondents to fill out the form themselves, and so requires a high level of literacy. Where multiple languages are common, questionnaires should be prepared using the major languages of the target group. Special care needs to be taken in these cases to ensure accurate translations.

*Questionnaires are more objective and familiar to people.

*they are a quick process to collect much information from many people at the same and short time.

*They are appropriate for sensitive issues in which the respondents feel comfortable than speaking to an interviewer.

*Questionnaires usually don't require answering immediately.

Disadvantages of Questionnaires: questionnaires are also:

*restricted to be used with only people who can read and write, illiterate people can't be involved.

*respondents may fail to return the questionnaires to the investigator, thus the size will be reduced.

*Questionnaires are not suitable for long and complicated issues.

*Respondents may misunderstand certain questions and the investigator can't clarify them; thus they will ignore certain questions or may not reply honestly.

*If the investigator forgets to ask a given question he cannot go back to the respondents and adds such question.

*the response cannot be supplemented with other extra information.

Construction a research instrument for collecting data

The construction of a research instrument or tool is an important aspect of a research project because any information you collect will be recorded through a given tool like tape recorder, camera video, etc. These help the investigator to keep the data with him and analyze it later. Research instrument should also be mentioned in the body of your research paper in the phase of 'methodology'; the famous tool of computer "garbage in, garbage out"¹ (GIGO) is also applicable to data collection (Prabhat and Meenu; 2015 ; p 12). It is an important principle to ensure the validity of your instrument; for

¹ GIGO is used to express the idea that wrong or poor quality data which are put into computer, they will come out of it.

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example using hand writing for registering information in observation or interview may delays the investigator, as he may miss some interaction or forget some details though it helps him to express the ideas using his own words and style; so in this case a tape recorder or a camera video will be a good idea.

But in some cases some participants do not like to appear in camera videos or don't like to record their own words, some the investigator will be obliged to write the information himself not to disturb his participants. Research instruments are not always materials, they can be also techniques accompanied with methods of data collection like an 'interview guide'. Data in qualitative research are not in most of the time collected through predetermined questions. Researchers usually develop a list of issues around different areas to discuss with their respondents; such list is called the interview guide (notice that it is used only in interviews and in qualitative design) (Seely; 2013; p 58).

Another instrument is the 'the interview schedule' which is a list of questions, closed or open-ended, prepared for use by the interviewer in a person to person interaction (face to face, by telephone, etc), note that interview schedule is a tool/instrument for collecting data whereas an interview is a method of data collection. Many people call observation, questionnaire, and interview as research instruments, but in order to specify the case and to differentiate them from the tools used in recording information, they can be called as methods of data collection, while everything that can help, guide, aid the investigator in recording and registering information like: camera, tape, schedule, etc can be referred to as research instruments/tools for data collection (Seely; 2013; p 78).

Activity: observation, interview and questionnaire are the three primary sources of data collection. Thus, on the basis of the above information do the following tasks:

1. Formulate a list of questions that you can ask to people face to face in an interview for a certain theme.
2. Make a list of questions that you can use in a questionnaire for a given topic.

Selecting Samples

Definition:

Sampling is the process of choosing or selecting few people from a larger group of population to become the basis for estimating the prevalence of information that interest you. Suppose that you want to find out the average income of families in your city; imagine the efforts required to check every family. Instead you can select few families as the basis of your enquiry and then from what you have found out from those families you can estimate the overage income in such city, thus the few families are samples. The term **sample** refers to a subgroup of the population who are the focus of you research enquiry and are selected in a way that represents the study population. The process of sampling is done in order to save time and as well as financial and human sources. **Sample size** is also an important term in the sampling process which refers to the number of individuals from whom you obtain information (Kumar ; 2011 ; p89).

Sampling in quantitative research

The aim of sampling in quantitative research is to produce accurate estimates, percentages, and reliable results with the highest possible level of precision. In this type of research, the sample size is usually determined in advance. Therefore, sample size is very important, as a larger sample increases the likelihood of including individuals from different backgrounds and characteristics. Quantitative research also uses randomization to ensure that every participant has an equal and independent chance of being selected, which helps reduce bias and improve the fairness and validity of the study. (Kumar ; 2014 ; p125).

Sampling in qualitative research

The purpose of sampling in qualitative research is to obtain deep and detailed understanding of a situation, event, or phenomenon. Unlike quantitative research, qualitative research does not rely on a fixed sample size determined in advance. Instead, data collection continues until the researcher reaches data saturation, which is the point where no new information or insights are being obtained. Therefore, sample size is not the most important factor in qualitative studies; the focus is on the richness and depth of the information collected. In addition, qualitative research does not usually use randomization when selecting participants. Rather, researchers intentionally choose “information-rich” participants who are able to provide meaningful and relevant data for the study (Kumar ; 2014 ; p125).

Types of Sampling: the various sampling strategies in quantitative research can be categorized into:

Random/Probability Sampling Design:

In order to achieve random sampling or probability sampling, each element in the study population should have equal and independent chance of selection. The concept of ‘equality’ here means that the choice of samples is not influenced by other considerations like education, ethnicity, social class, etc, i.e. samples are randomly selected. Similarly, ‘independence’ means that the choice of one element is not dependent upon the choice of another one in the sampling; that is the selection or rejection of one sample doesn’t affect the inclusion or exclusion of others. For example: suppose you want to select samples in a class which includes 80 students, if 20 of these refuse to participate in your study, you can only use a sample of 60 students. The 20 students could have strong feelings about issues you wish to explore, but your findings will not reflect their opinions. But in this case your sample does not

represent the total class. In order to understand the concept of independent chance of selection; let us assume that there are five students in the class who are extremely close friends. If one of them refuses to participate with you because the other four students are not chosen, and you are therefore obliged to select either the five or none; i.e. include or exclude part of the sampling population; then your sample will not be considered as an independent sample since the selection of one is dependent upon the selection of others. In practice; there are always some people who refuse to participate in the study, but you only need to be worry if the number is significantly large. The sample can only be random or probability sampling if both equality and independent are met (Kumar ; 2011 ; p165).

2. Non-random/non-probability sampling design:

This design is used when either the number of elements in a population is unknown or the elements cannot be individually identified. In such situations, the selection of samples is dependent upon other considerations like: education, ethnic background, social class, etc.

Common Types of Sampling in Non-Random/Non-Probability Sampling Design

a) Quota Sampling: this type is based on convenience; here the researcher is guided by some visible characteristics he is looking for, such as gender, race, social class, etc. He initially selects the sample from a location convenient to him, then whenever he sees another person who has the same features as the first sample(s) he asks him to participate with him.

b) Accidental Sampling: in contrast of quota sampling when the researcher looks for people on the basis of their visible features, this method makes no such attempt. Here you stop collecting data when you reach the required number of respondents you need, it is most common for market research but some people contacted may not have the required data.

c) Judgment or Purposive Sampling : here the researcher goes directly to people who, in his opinion/judgment, can provide him with the data he needs and be willing to share it with him. It is most useful when you want to construct historical data, describe phenomena, etc.

d) Expert Sampling: in contrast of judgment sampling where the samples are selected upon your judgment, in Expert sampling your samples must be already known as « Experts » in the field you are interested in. For example if you are looking for medical/scientific information you can only select scientists, biologists, or doctors.

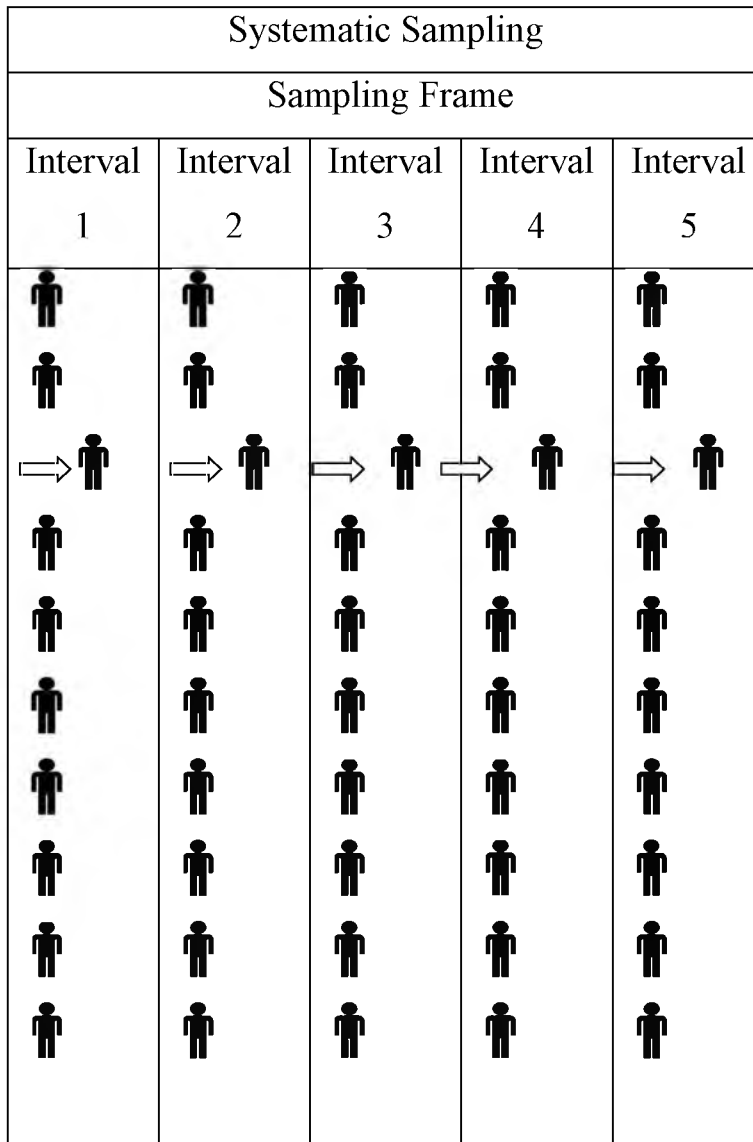
e) Snowball Sampling: is the process of selecting samples using a network, but How ? Here the researcher starts with few samples or individuals (Group A) in a group and the required data are primarily collected from them; after that he asks them to identify other people (Group B) in the group to participate with him and these become part of his samples ; then he asks group B to identify other people whom they know and be his samples, and so on. This process continues until he gets into a saturation point of data. This technique is mainly used when you know only few people in the group you wish to study, and the choice of the entire samples depends upon the choice of the individuals in the first stage (Kumar ; 2011 ; p189)

3. Systematic sampling design : a mixed design :

This one is called the mixed design because it carries the characteristics of both random and non-random sampling designs. In order to use the systematic sampling design you should have a sampling frame or plan for your study population. In this design, the sampling plan is divided into a number of segment called *intervals*. Then, you select one element from the first interval, after you select other elements from other intervals but such selection must be dependent upon the position selected in the first interval. That is: if it is the fifth element in the first interval; then the fifth element of

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each interval should be selected. Notice that the elements from the first interval are randomly selected; but the choice of the other elements from subsequent intervals is dependent upon the choice from the first. For example: suppose that there are 50 students in a class and you want to select 10 students using the systematic sampling technique. First you need to determine the intervals ($50/5=10$), this means that from the 5 intervals you need to select one student. Suppose that you select the third students from the first interval, so from the rest intervals you should select every third student (Kumar ; 2011 ; p205).



→ (Third one) is the selected element from each interval

Factors affecting inferences drawn from samples: there are two main factors that can influence sample selection:

1. the size of samples : findings based upon larger samples have more certainty than those based upon smaller ones. As a rule: the larger sample size provides the more accurate findings.

2. the extent of variation in the sampling population : if there is great variation among samples for a given sample size, there will be a great uncertainty. If the samples are homogeneous (similar or uniform) a small sample can provide good estimate; but if it is heterogeneous (dissimilar), in this case you need to select a larger sample size in order to obtain the same level of accuracy. As a rule: the higher variation, with respect to the characteristics of population, the greater uncertainty for a given sample size.

Activity: using the systematic sampling design/the mixed design, select 9 samples from the total sample size of 90.

Note Taking

Note taking: is the practice of recording the essential information captured from other different sources such as an oral discussion at a meeting, or a lecture, documents, etc (notes of a meeting are usually called minutes). It helps you distinguish where your ideas came from and how you think about those ideas (Seely; 2013; p 62).

Effective note-taking requires:

- recognizing the main ideas
- identifying what information is relevant to your task
- having a system of note taking that works for you
- reducing the information to note and diagram format
- putting the information in your own words
- recording the source of the information

Types Note-taking Strategies

1) Reading Note-taking Strategies: it requires taking notes from written documents; here you should determine if you are reading for general information or some specific information that may relate to the topic. Before you start taking notes, read the text, then highlight or mark the main points and any relevant information you may need. Finally keep in mind your purpose for reading the relevant sections of the text carefully and take separate notes as you read. You should also be Selective and Systematic because not all of a text may be relevant to your needs. You must also identify how Information is organized, i.e. past ideas to present ideas, most important

point to least important point, well known ideas to least known ideas, simple ideas to complex ideas, general ideas to specific ideas (Seely; 2013; p 102).

2) Listening Note-taking Strategies: Many of the strategies for reading note taking also apply to listening note taking. However, unlike reading, you can't stop a lecture as you listen and take notes (unless you listen to a recorded lecture). Therefore, you should have a clear purpose of taking notes, recognize main ideas, select what is relevant, i.e. you do not need to write down everything that is said, and have a system for recording information that works for you.

Techniques of note taking:

Use Symbols and Abbreviations: The use of symbols and abbreviations is the main technique of note taking when speed is essential. You also need to be familiar with symbols frequently used in your courses, like:

1. Symbols: = equals/is equal to/is the same as; \neq is not equal to/is not the same as; \equiv is equivalent to; \therefore therefore, thus, so because; + and, more, plus; > more than, greater than; < less than; -less, minus; \rightarrow gives, causes, leads to, results in, is given by, is produced by, results.

2. Abbreviations: These can be classified into three categories:

a. Common Abbreviations: many are derived from Latin, such as: i.e. = that is / e.g = for example/ NB =note be careful/ no= number/ etc= and so on.

b. Discipline Specific Abbreviations: these are represented by Greek letters in many fields. A or a (alpha) B or b (beta).

c. Personal Abbreviations: Here you can shorten any word that is commonly used in your lectures. diff =different/ Gov = government/ NEC = necessary/ Ess= essential/imp=important, ect.

Methods of Note Taking: there are five (5) common methods of note taking, but they are not fixed; one can therefore create his own if any of those methods doesn't work well.

1. The Cornell Method: it is a systematic format for organizing notes without difficult recopying; here you can divide you page/ paper into mainly two (2) parts. After writing the notes in the main space, use the left-hand space to label each idea and detail with a key word or "cue". It has an easy format for pulling out major concept and ideas as it saves time and effort.

2. The Outlining Method: Dash or indented outlining is usually best except for some science classes such as physics or math. Here you begin with the information which is most general then write the specific group of facts or information down to it indented with spaces. In this method the relationships between the different parts are distinguished through indenting, but No numbers, letters, or Roman numerals are needed.

3. The Mapping Method: Mapping is a graphic representation of the content of a lecture. Information here is recorded in a map that is created by reader or the listener; it is a method that maximizes active participation and requires immediate knowledge and understanding.

4. The Charting Method: here you may set up your paper or record the needed data by drawing columns and appropriate tables.

5. The Sentence Method: here, you can write every new thought, fact or topic on a separate line, numbering as you progress. This one is slightly more organized than the paragraph.

Activity: according to the above information, summarize the lecture adopting one of the note taking strategies and using one of the mentioned methods (Seely; 2013; p 148).

Outline

What is an Outline: An outline is the general plan of the research work; it is used to organize your paper through presenting the order of the various parts which are analyzed, their relative importance, and their relationship with each other. Outlines can be useful for any paper to help you see the overall picture. An outline is also called ‘table of content’. It starts by a general introduction and ends by a general conclusion; these two elements are interrupted by various chapters or sections which in turn involve all the headings and the sub-headings related to the topic being investigated. Headings are simply the titles which are analyzed in your research paper.

Types of the outline: There are two kinds of outlines: the topic outline and the sentence outline.

- **The topic outline:** consists of short phrases; it is brief and has a parallel structure which reveals the logic you will follow in your paper
- **The sentence outline:** headings are done in full sentences. It is normally used when your paper focuses on complex details. A sentence outline also allows you to include those details in the sentences instead of creating an outline of many short phrases that goes on page after page. The advantage of a sentence outline is that it helps you make sure you become sufficiently specific about your subject, rather than simply generalizing (Paltridge & Starfield; 2007 ; p25).

Both topic and sentence outlines have the same format using Roman numerals, capital and small letters of the alphabet, and numbers. This helps both you and anyone who reads your outline to follow your organization easily. There is no rule for which type of outline is best; choose the one that you think works best for your paper. Regardless of what type of outline you choose, you will need to have enough major headings to develop your topic fully within the boundaries established by your thesis statement.

Steps of making the Outline

1. **Identify the topic.** The topic of your paper is important. Try to sum up the point of your paper in one sentence or phrase. This will help your paper stay focused on the main point.
2. **Identify the main categories.** What main points will you cover?
3. **Create the first category.** What is the first point you want to cover?
4. **Create subcategories.** After you have the main point, create points under it that provide support for the main point. The number of categories that you use depends on the amount of information that you are going to cover; there is no right or wrong number to use.
5. Each category consists of a minimum of two entries. If your first category is Roman numeral I, your outline must also have a category labeled Roman numeral II; if you have a capital letter A under category I, you must also have a capital letter B, then go on to have capital letters C, D, E, etc, is up to you, depending on the amount of material you are going to cover (Seely; 2013; p 117).

Rules of the Outline:

1. Subdivide the headings by system of Roman numerals, letters and numbers followed by a period.
2. Each heading or sub-heading should have at least two parts.
3. Headings for general introduction and general conclusion are not used.
4. Each chapter/section should involve an introduction and a conclusion specified exclusively to it.
5. Don't mix between the topic and the sentence outlines in one research work, use one of them.
6. Each word in the outline must be capitalized except articles, linking words, prepositions, etc.
7. Indent properly.

8. In a **sentence** outline we put period at the end of the sentence, but in a **topic** outline do not place periods after ideas.

Outline Format:

I. General Introduction

- * Thesis statement/Statement of purpose
- * Research Questions
- * Hypothesis
- * Aim of the study

II. Chapter/ Section One: Review of Literature

1.1 Introduction

1.2 Heading

1.2.1. Sub-heading

1.2.2. Sub-heading

1.3. Heading

1.3.1 Sub-heading

1.3.2. Sub-heading

1.1.3. Sub-heading

1.4. Heading

1.5. Conclusion

This chapter deals with Theoretical Background of the topic. It involves definitions of the complex and key or important terms related the topic. It can include origins of the topic, characteristics, etc.

III. Chapter/ Section Two: Methodology

2.1. Introduction

2.2. Heading

This Chapter speaks about all the methods and the the instruments that you have used during the process of data collection, including observational and elicited

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- 2.3. Heading
- 2.4. Heading
 - 2.4.1. Sub-heading
 - 2.4.2. Sub-heading
- 2.5. Conclusion
- IV. Chapter/Section Three: Data Analysis
 - 3.1. Introduction
 - 3.2. Heading
 - 3.2.1. Sub-heading
 - 3.2.2. Sub-heading
 - 3.2.3. Subheading
 - 3.3. Heading
 - 3.4. Heading
 - 3.5. Conclusion
- V. General Conclusion.
- VI. Bibliography
- VII. Appendices (here you give a copy of your questionnaires, interview schedule or guide; synonyms,)

data, who are you participants, their number.

You can even refer to the difficulties which you have faced when collecting data.

The last chapter generally analyses data which have been collected by the investigator. It gives conclusions of what have been achieved and sums up the topic.

Important: This model of outline introduces only three chapters; but it is not necessary to limit your outline by this model. You can therefore provide more than two or three chapters but **not less than Two chapters**_this depends to your topic and the number of headings you have suggest.

Section versus Chapter: “chapter” is used when the research paper in general and the outline in particular is large and requires many headings and amount

of information. “Section” is used when the outline involves only few headings and the research paper requires small parts to analyze. That is the main difference between chapter and section lies in the number of pages of the research papers, i.e. chapter is larger than a section. Various sections can be parts of a chapter; in this case a chapter carries a new direction while a section breaks down the elements in the chapter for organization and line of thought.

Example of topic and sentence outlines:

“Attitudes and Motivations in English Language Learning”

Topic Outline

I. General Introduction. (Thesis statement/Statement of purpose, Research Questions, Hypothesis, Aim of the study).

II. Chapter One: Review of Literature

1.1. Introduction

1.2. Definition of Attitudes

1.2.1. Variables of Attitudes

1.2.2. Determiners of Learners’ Attitudes

1.3. Definition of Motivation

1.3.1. Motivational Variables

1.3.2. Determiners of Learners’ Motivations

1.4. Development of Attitudes and Motivations in English Language Learning

1.5. Conclusion

III. Chapter Two: Methodology

2.1. Introduction

2.2. Methods of Data Collection

2.3. Observation

2.4. Questionnaires

2.5. Interviews

2.6. Samples

2.6.1. Sample Size

2.6.2. Sample Selection

2.7. Conclusion

IV. Chapter Three: Data Analysis

3.1. Introduction

3.2. Strategies of Attitudes

3.2.1. Types of Attitudes

3.2.2. Goals of Attitudes

3.3. Attitudes toward the English Language

3.4. Factors Influencing Attitudes Development

3.5. Motivational Strategies

3.6. Types of Motivations

3.7. Key Motivational Factors

3.7.1. Teacher's Motivation

3.7.2. Students' Motivation

3.8. Individual Variations in Motivations

3.9. Conclusion

V. General Conclusion

Bibliography

Appendices

Sentence Outline

I. General Introduction. (Thesis statement/Statement of purpose, Research Questions, Hypothesis, Aim of the study).

II. Chapter One: Review of Literature

1.1. Introduction.

1.2. Attitudes as Defined by Famous Authors.

1.2.1. The Variables which Characterize the Attitudes.

1.2.2. The Factors which Determine the Learners' Attitudes.

1.3. Definitions Offered to Motivation.

1.3.1. The Variables which Characterize Motivation.

1.3.2. Aspects which Determine the Learners' Motivations.

1.4. The Facts which Led to the Development of Attitudes and Motivations in English Language Learning.

1.5. Conclusion.

III. Chapter Two: Methodology

2.1. Introduction.

2.2. The Methods Used to Collect Data.

2.3. Using Observation.

2.4. Addressing Questionnaires.

2.5. Doing Interviews.

2.6. The Samples who Provided the Data.

2.6.1. Counting the Sample Size.

2.6.2. Selecting the Samples.

2.7. Conclusion.

IV. Chapter Three: Data Analysis

3.1. Introduction.

3.2. Strategies Followed for Attitudes.

3.2.1. The Types which Determine the Attitudes.

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3.2.2. The Goals which Characterize the Attitudes.

3.3. The Attitudes that Teachers Have toward the English Language.

3.4. Factors which Influence the Developments of Attitudes.

3.5. The Strategies which Distinguish Motivation.

3.6. The Types which are Included in Motivation.

3.7. The Keys which Lead to Motivation.

3.7.1. The Factors that Motivate the Teacher.

3.7.2. The Factors that Motivate the Students.

3.8. The Variation of Motivations which Occur among the Individuals.

3.9. Conclusion

V. General Conclusion

Bibliography

Appendices

Activity: choose a topic and construct either a topic or a sentence outline about it.

Writing a General Introduction, Thesis Statement, and Research Questions

General Introduction: The introduction serves the purpose of leading the reader from a general subject area to a particular field of problem. The purpose of the introduction is to establish for your reader a clear sense of the topic and the argument that the paper will develop. Your introduction also needs to draw readers' attention making them want to keep reading. It starts by the area of the research then it narrows to the specific of the topic which is under investigation (Seely; 2013; p 10). The researcher has to state at least the following points:

- a) Which phenomenon is studied;
- b) The statement of purpose/ thesis statement;
- c) The research questions and hypotheses;
- d) The objective of the study;
- e) The division of the chapters;

What to Avoid in Introduction:

- **Avoid generalizations:** statements like “Throughout history all humans have thought ...” are rarely correct (you will have a mistake before you even begin!), and they are not interesting to the reader. Eliminate any general statements like these from your essay as a whole and especially from your introduction.
- **Avoid shopworn phrases (no longer new or useful):** phrases like “In today's society,” or “An important issue facing humans today” do little to attract the reader's interest. They also immediately show to the reader that the essay will be a general and not thoroughly examined.
- **Avoid “There (be)...” in the opening line.**

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- The general introduction should start by a general idea or background of the topic which comes at the introductory paragraph; it also provides definitions of the key terms and important concepts of the topic.

b) The thesis statement: any research starts by a problem and ends by a solution of that problem. A thesis statement is a sentence which summarizes the main idea or ideas of your paper and clearly expresses what you are going to say about your topic. It is also a clear, concise statement of the position you will defend in your paper. It informs the readers of the content, the argument, and often the direction of a paper. It covers exactly the topic you want to talk about, no more and no less, lets your readers know what to expect, and helps you better organize and develop the content of your paper (Seely; 2013; p 12).

1. Thesis statement is not a title or fragments; like: Finding a Solution to Campus Parking Problems

2. Thesis statement is not a question; like: How can we solve the problem of Violence?

3. Thesis statements are not commands; like: Note the differences between cooks and chefs.

4. Thesis statements are not announcements of the author's purpose or assignment; like:

In this paper I will discuss the causes and effects of the French Revolution and then argue as to whether or not it was successful.

5. Thesis statement is a concise sentence which covers the whole topic.

The thesis statement is incorporated within the introduction and is expressed as:

- The purpose of this research work is to
- The aim of this research work is to
- This research work seeks to/ tries to/ presents/ shows/ etc

c) Research Questions: they are also included within the general introduction and must be covered by the thesis statement. The questions should not be too

broad, i.e. don't ask about many issues in one question, or too specific not to meet with other issues and not to go out of the topic. Research questions are mainly 'Wh' questions which allow the research to provide information in the form of long/short paragraphs such as: what, where, why, how, when, etc. The researcher should not ask double questions in one question or deal with many issues in the same question; but it would be to specify one issue for one question and leave the possibility to ask about other issues in the following questions.

Evaluate your research questions: in order to check the correctness and validity of research questions, the research should ask himself and answer the following questions:

- 1) Does the question deal with one issue?
- 2) What type of information do you need to answer this question?
- 3) Is the question too broad or too specific?
- 4) What sources do you need to answer this question?
- 5) Can you answer this question?

In order to develop your research questions you need to: break down the problem into different elements; and list your questions in a logical order.

Hypotheses: a hypothesis can be a proposition, condition, assumption, or principle which is assumed in order to draw its logical consequences into reality. It can predict a particular relationship between two or more variables i.e. we think that a relationship exists, we first state it then prove if it really exists or not through reliable data. Hypotheses come after the research questions; they help the investigator to narrow the field of investigation, collect the information he needs, follow a direction, and bring clarity and focus to a research study.

d) **The objective of the study** should be distinguished from the thesis statement/statement of purpose which is expressed in a similar way to the

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objective of the study; i.e. the aim, the purpose of this paper is to In the objective of the study; the researcher should only explain to the reader of his paper why he chose the topic under investigation. The objective depends from one researcher to another; if two or more researchers chose the same topic their thesis statements may be the same but their objectives vary; i.e. each one has his own reasons and purposes of the chosen theme.

e) **Chapters division** is the last element and is placed at the end of the general introduction; i.e. in the last paragraph. At this step the researcher can only declare how many chapters/sections he has identified in his paper in general and table of content in particular; he can also introduce few but not deep explanation of the theme. At the end of his general introduction; he can say for example:

This research paper is divided into three chapters/sections; the first chapter gives a general background of the topic under analysis referring the definitions of the most important concepts; the second chapter shows the various methods used for obtaining and collecting data moving to analyze these data and give the various results and interpretations in the last chapter.

Activity: choose a topic and write a brief introduction about it including: a thesis statement, objective and aim of the study, research questions, and hypotheses.

Constructing Hypotheses

Definition: a hypothesis can be a proposition, condition, assumption, or principle which is assumed in order to draw its logical consequences into reality. It can predict a particular relationship between two or more variables i.e. we think that a relationship exists, we first state it then prove if it really exists or not through reliable data. Hypotheses are essential in the research study; they help the investigator to narrow the field of investigation, collect the information he needs, follow a direction, and bring specificity, clarity and focus to a research study. Eg. In horse races people bet on certain horses and only at the end they can know which horse won the race. As a researcher you may have a 'hunch' towards certain assumptions or guesses, you test them by collecting data that will enable you to conclude if your hunch is right. Thus, a hypothesis is a hunch, assumption, or an idea about a phenomenon, relationship, or situation which you don't know or not sure about (Kumar ; 2014 ; p98).

Testing hypothesis: In order to test the hypothesis you need to go through three phases :

Phase I: constructing hypothesis → **phase II :** collect the required data → **phase III :** analyze data to draw conclusions to prove if your hunch is true or false.

It is only after analyzing the evidence that you can conclude whether your hunch/assumption is correct or not. When drawing the conclusion it is important to make a statement about the correctness of the hypothesis in the form of : « the hypothesis is true/false ». Testing hypotheses takes into consideration the way you collect data, select a sample or a certain method, data analysis, and communication of conclusion which all should be appropriate and free from any bias. Testing hypotheses and drawing

conclusions become meaningless if data collection and analysis, sampling, and methods used are inappropriate.

Characteristics of the hypothesis : the hypothesis should be:

1. Simple, specific, and conceptually clear. There no place for ambiguity and it should be uni-dimensional that is it should test only ‘one’ hunch at a time. Eg ; « the average age of the female students in this class is higher than that of male students ». This is a clear, specific and easy to test. It tells you what do you try to compare (overage age), which population group are compared (male and female students), and what you want to explore (whether students have higher overage age).
2. Capable of verification. There is no need to formulate a hypothesis which cannot be verified, in fact there is no specific technique or method used for verification, thus methods must be available for data collection and analysis.
3. Related to the existing body of knowledge. It is important that your hypothesis should have its roots from a knowledge that have existed before not from random, therefore it is essential to be familiar with the subject area in order to select the right hypothesis.
4. Operational. It means that it should be expressed in a way in which it can be measured, if it can’t be measured, it can neither be tested nor analyzed, hence conclusion can’t e drawn.

Types of Hypotheses. Hypotheses can be classified under two categories :

1. **Alternative Hypothesis** : also called null hypothesis or hypothesis of no difference : is a hypothesis that is formulated in a way that shows no difference between two situations, groups, outcomes, or conditions ; it is usually written as ‘**H₀**’.

Example : There is no significant difference in the proportion of male and female smokers.

2. Research Hypothesis : it involves :

a) *The Hypothesis of difference* : it is the hypothesis which is formulated in a way that shows that there will/may be a difference but doesn't specify the magnitude (degree)

Eg : the proportion of male smokers is greater than female smokers in this community.

b) *Hypothesis of point-prevalence* : it gives the exact degree of the situation or problem, here the researcher may have already enough knowledge about the subject.

Eg : male smokers represent the percentage of 60%, while female smokers are 30% in the study population are smokers.

c) *Hypothesis of association* : it shows the extent of relationship on the magnitude of given phenomena or among different populations.

Eg : the percentage of male smokers is the double of that of female smokers in the study population (Kumar ; 2014 ; p136) .

Errors in Testing Hypotheses :

As explained before, a hypothesis is an assumption that may prove to be correct or incorrect ; but it is often possible to arrive at incorrect conclusion because of many reasons such as :

- The study design selected is incorrect
- The sampling procedure adopted is faulty
- The method of data collection is inaccurate
 - The analysis is wrong
 - The conclusion drawn is incorrect

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Types of Errors : the following shows the two types of errors :

When the hypothesis is actually :

	True	false
Accept	Correct decision	Type I error
Reject	Type II error	Correct decision

This means that:

Acceptance of a hypothesis when it is false: it is known as Type II error

Rejection of a hypothesis when it is true: this is known as Type I error

Activity: give four Different hypotheses of difference, no difference, point prevalence, and hypothesis of association.

Paraphrasing

Definition:

To paraphrase means to express someone else's ideas in your own language. Paraphrasing is a way of presenting a text, keeping the same meaning, but using different words and phrases. It is technique used with short sections of text, such as phrases and sentences. A paraphrase may result in a longer, rather than shorter, version of the original text or keep the same length of the original text or passage. It offers an alternative to using direct quotations and helps researchers to integrate evidence and source material. Paraphrasing is also a useful skill for taking notes from readings, note-taking in lectures, and explaining information in tables, charts and diagrams (Ravindran ; 2009 ; p52). Paraphrase contains all or most of the points of the original text and is around the same length. Remember a reference must be provided.

It is important to note that a paraphrase or paraphrasing:

- *does not match the source word for word
- *involves putting a passage from a source into your own words
- *changes the words or phrases of a passage, but keeps the original meaning
- *must be attributed to the original source

How to Paraphrase (steps)

- Read the source carefully and understand it fully.
- Identify the main point(s) and key words or important ideas mentioned in the original passage.

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- Cover the original text and rewrite it in your own words and style and keep the length approximately the same or longer than the original text.
- Cite appropriately and integrate the paraphrase into the text effectively.

When paraphrasing is used?

- Using direct quotations is easy; anyone can do it; but quoting too much is a sign of bad writing. It indicates that you cannot write well, you are lazy, or you do not have a good style or a strong understanding of texts; thus it can be an alternative to a direct quotation.
- Paraphrase short sections of work only; a sentence or two or a short paragraph.
- To rewrite someone else's ideas in your own words without changing the meaning.
- To support claims in, or provide evidence for your writing.

When should you provide citations?

Every time you provide a direct quotation, you should provide a citation; paraphrases and summaries are no different. Provide citations every time you use of facts or ideas found in another text or ideas **which are not yours**. The only time in which you would paraphrase and do not provide a citation is when what you paraphrase can be considered widely ***known information*** that is in the public domain or a common idea that all people are aware of it (Ravindran ; 2009 ; p 33).

For example, you would not need to provide a citation if you were to paraphrase this sentence: "Australia is a large country with a relatively low population density". That is widely recognized as common knowledge. You would, however, need to provide a citation if you were to paraphrase this:

“Australia’s estimated resident population at June 2003 was just under 19.9 million, an increase of 1.2% over the previous year.” (About-Australia.com.au, 2008).

Techniques of paraphrasing:

- 1. Use synonyms:** Using appropriate synonyms is the most important paraphrasing skill. Use a dictionary but pay attention to usage because not all words that are synonyms are used in the same way or have the same meaning. Don’t use synonyms for specialist terms (such as microeconomics, or aluminum).
- 2. Change the structure of the sentences:** break up a long sentence into two shorter ones or combine two short sentences into one; use different parts of speech and different word order; eg. changing nouns into verbs or adjectives into adverbs.
- 3. Change the grammar:** change the voice (active/passive) or change word forms (e.g. nouns, adjectives), or direct and indirect, etc.
- 4. Make abstract ideas concrete:** this can be done by choosing simple, clear vocabulary and providing examples for some ideas. Don’t view your target reader as an expert, but rather as someone with little specialist knowledge of the topic.
- 5. Review your paraphrase** checking that it accurately reflects the original text but is in your words and style and record the original source (including the page number) so that you can provide a reference.
- 6. Try to provide a longer paraphrase than the original passage, if you can’t keep the length similar to it, **but not shorter** than it unless you would provide a summary.**

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Activity: paraphrase the following passage:

The original passage is from Oliver Sacks' essay "An Anthropologist on Mars":

The cause of autism has also been a matter of dispute. Its incidence is about one in a thousand, and it occurs throughout the world, its features remarkably consistent even in extremely different cultures. It is often not recognized in the first year of life, but tends to become obvious in the second or third year. Though Asperger regarded it as a biological defect of affective contact — innate, inborn, analogous to a physical or intellectual defect — Kanner tended to view it as a psychogenic disorder, a reflection of bad parenting, and most especially of a chillingly remote, often professional, "refrigerator mother." At this time, autism was often regarded as "defensive" in nature, or confused with childhood schizophrenia. A whole generation of parents — mothers, particularly — were made to feel guilty for the autism of their children.

Paraphrase:

In "An Anthropologist on Mars," Sacks lists some of the known facts about autism. We know, for example, that the condition occurs in roughly one out of every thousand children. We also know that the characteristics of autism do not vary from one culture to the next. And we know that the condition is difficult to diagnose until the child has entered its second or third year of life. As Sacks points out, often a child who goes on to develop autism will still appear perfectly normal at the age of one (247). Sacks observes, however, that researchers have had a hard time agreeing on the causes of autism. He sketches the diametrically opposed positions of Asperger and Kanner. On the one hand, Asperger saw the condition as representing a constitutional defect in the child's ability to make meaningful emotional contact with the external world. On the other hand, Kanner regarded autism as a consequence of harmful childrearing practices. For many years confusion

about this condition reigned. One unfortunate consequence of this confusion, Sacks suggests, was the burden of guilt imposed on so many parents for their child's condition (247-448).

Summarizing

Definition:

To summarize means to take only the most essential points of someone else's work. The main idea is given, but needless details and examples are left out. Summarizing is used with longer texts; the main aim of summarizing is to reduce a text to its most important ideas. Summarizing is a useful skill for making notes from readings and in lectures, writing an abstract and incorporating material in assignments. The length of a summary depends on your topic and purpose, but summaries are typically short because summaries usually include only the main points of a passage. To describe more than a main point, paraphrasing is more useful (Ravindran ; 2009 ; p 44). Although the words in a summary are yours; but the ideas are not and consequently the **source must be cited** so as to avoid plagiarizing.

Summarizing:

- does not match the source word for word
- involves putting the main idea(s) into your own words, but including only the main point(s)
- presents a broad overview, so is usually much shorter than the original text
- must be attributed to the original source

When to Summarize: Summarize long sections of work, like a long paragraph, page or chapter when you simply want to give your readers a brief overview of a text (Ravindran ; 2009 ; p63).

- To outline the main points of someone else's work in your own words, without the details or examples.
- To include an author's ideas using fewer words than the original text.
- To briefly give examples of several differing points of view on a topic.
- To support claims in, or provide evidence for, your writing.

How to Summarize: Summary moves much farther than paraphrase. When you summarize a passage, you need first to get the meaning of the passage and then to capture in your own words the most important elements from the original passage. A summary is necessarily shorter than a paraphrase (Paltridge& Starfiled; 2007 ; p36) (Paltridge& Starfiled; 2007 ; p33).

- Start by reading the text and identify the main points of the passage.
- Organize and present these main points in a coherent way leaving out examples and evidence. Be careful not to use the author's words or to follow the sentence structure of the original passage.
- Without the text, rewrite your notes in your own words.
- Keep the length down the original.
- Make sure that you are faithful to the meaning of the source and that you have accurately represented the main ideas.
- Cite appropriately and integrate the summary into the text effectively.

Why we summarize?

- to avoid unnecessary details when the main point of a passage is all what you need
- to show that you understand what the source is saying
- to give your audience a general idea of the source
- to refresh the readers' memory if they have already read the source.

Activity: summarize the following passage:

Original Passage:

“Students frequently overuse direct quotation in taking notes, and as a result they overuse quotations in the final paper. Probably only about 10% of your final manuscript should appear as directly quoted matter. Therefore, you should strive to limit the amount of exact transcribing of source materials while taking notes.” Lester, James D. *Writing Research Papers*. 2nd ed. (1976): 46-47.

Summary:

Students should take just a few notes in direct quotations from sources to help minimize the amount of quoted material in a research paper (Lester, 46-47).

Notice how this summary covers just one main idea- the need to reduce direct quotations in notes. It does not mention the 10% level, or the fact that students often overuse direct quotes in their notes.

Quoting

What is a Quotation? A “quote” is a direct restatement of the exact words from the original source. It is an exact reproduction of spoken or written words. Direct quotes can provide strong evidence, act as an authoritative voice, or support a writer’s statements. Quoting also requires citing the source or the reference before or after the speech (Paltridge& Starfiled; 2007 ; p56).

Quotations

- match the source word for word
- are usually a brief segment of the text
- appear between quotation marks
- must be attributed to the original source

When to Quote In general, it is best to use a quote when:

- **The exact words of the author are important for the point you are trying to make.** This is especially true if you are quoting technical language, terms, or very specific word choices.
- **You want to highlight your *agreement or disagreement* with the author’s words.** You may sometimes want to use a direct quote to indicate exactly what you agree or disagree with.
- when the author’s words convey a powerful meaning.
- when you want to use the author as an authoritative voice in your own writing.
- to introduce an author’s position you may wish to discuss.
- to support claims in, or provide evidence for, your writing.

How to Quote: Make sure that you have a good reason to use a direct quotation. Quoting should be done to support your own work, not replace it. For example, make a point in your own words, then support it with an authoritative quote.

- Direct quotations should appear between quotation marks (“...”) and exactly reproduce text, including punctuation and capital letters.
- A short quotation often works well integrated into a sentence.
- Longer quotations (more than 3 lines of text) should start on a new line, be indented and in italics.

Tips for Quoting

- **Introduce** your quotes to your reader, especially on first reference.
- **Explain** the significance of the quote to your reader.
- **Cite** your quote properly according to the rules of style you are following in your essay.

Brackets: Sometimes it is necessary to add/change words to the quote to make it appropriate for your paper. Use brackets [] to show where you have added/changed words.

Ellipsis: An ellipsis is a set of **three** spaced dots (...) that is used when you omit words from a quote, that is you must replace the omitted words with an ellipsis. If you need to use ellipses at the end of a sentence, use three dots plus the period, i.e. four dots (....)

Citing a Quotation:

Format: Sentence ([Author Last Name], [Year Published], [Page Number(s)]).

Example: “There is a correlation between students’ expressions in a class and the grade that the students earn in that class” says Milton (2004, p. 2).

Some guidelines for quoting:

- Don’t just quote and run; either precede or follow up the quotations with an explanation of how the quote supports the point you are making.
- Introduce quotes with special words. You need to signal the reader that a quote will be used. The following are some signal verbs you could use to integrate quotes into your paper: acknowledges, declares, remarks, states,

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advises, criticizes, replies, suggests, agrees, describes, responds, writes
claims, emphasizes, objects, thinks, concludes, discusses, disagrees, says

The following are **examples** of how to use signal words.

* Wilson acknowledges that...

* as Wilson declares.

* Wilson says...

* ...concludes Wilson.

* Wilson describes...

* ...objects Wilson.

General rules for quoting:

- Do not use long quotations - they can never replace your own analysis.
- When quoting from the text, always explain the quotation in your own words.
- Do not exaggerate in it - a few carefully selected quotations are certainly more worth than a text that contains quotations only.
- Omissions of any kind are indicated by three dots (...).
- Shorter quotations should be integrated into your sentence.
- If the grammar of the quotation does not fit your sentence structure, adapt the quotation by making the necessary additions in square brackets [...]

Plagiarism

Plagiarism is a field of research corruption described as writing new ideas or words created by somebody or from one's own earlier research, and aiming to publish such work without properly referencing the original writer and paper. Plagiarism is a crime and an ethical offence. So, plagiarism is stealing someone's intellectual property. The massive numbers of discourse characteristics used stance plagiaristic goes as an unlawful deed. For instance, theft, kidnap and stealing were often used to depict plagiarism (Akbar, 2018). Plagiarism occurs as a result of one of the two possible motivations: an absence of ethics or an ignorance of citation conventions among researchers/students. It is easy for authors to prevent plagiarism by simply not copying any written texts, writing an original document in one's own language, and referencing the source if paraphrasing. This method may avoid the concurrent or improper duplication of the content used in any way (prevention and identification of plagiarism).

Regrettably, many writers tend to neglect or overlook these fundamental laws, because occurrences of plagiarism are becoming all too popular in the research realm. Since publishing and disseminating ideas are vital to the research effort, and the rules governing the writing and publishing of data are inviolable, we all must believe and adhere to prevalent plagiarism guidelines. Scientific research adheres to such investigative principles which are invariant in terms of geography, social tradition or personal opinion (Ober, et.al., 2013). A benevolent view is that writers who are guilty of plagiarism are unaware of what constitutes plagiarism.

Four types of plagiarism:

Plagiarism can appear in different forms and may involve copying words, phrases, sentence structures, or ideas without proper acknowledgment.

Accident plagiarism: This plagiarism occurs when an individual ignores quoting their sources, misquotes their sources, or mistakenly paraphrases a document using unattributed related terms, word groups, and/or sentence construction. Even accidental plagiarism is treated seriously and may receive the same penalties as other forms of plagiarism.

Self-plagiarism occurs when a student submits previous work as new work or reuses parts of earlier assignments without obtaining permission from the instructors involved. It also includes submitting the same paper for different courses without prior approval.

Intentional or deliberate plagiarism happens when someone knowingly presents another person's work as their own. This includes copying and pasting material from online sources, websites, or databases without acknowledgment; using images, videos, or audio without permission; presenting another student's or another person's work as one's own; quoting sources without quotation marks; inventing references; patchwriting by changing only a few words in copied passages; submitting the same assignment to multiple classes without permission; or asking someone else to write a thesis, report, or dissertation. It may also involve adding names of co-authors who made no contribution to the work.

Unintentional plagiarism results from lack of awareness or poor academic practice rather than deliberate cheating. Examples include weak paraphrasing, incorrect citation, excessive quoting, poor documentation, forgetting references, or failing to express ideas in one's own words.

Although concept plagiarism is more common in advanced academic settings, copy-and-paste plagiarism is widely practiced in many educational environments. In some situations, plagiarism occurs because students are

unfamiliar with proper citation methods, while in others it is done intentionally. Self-plagiarism is also sometimes committed because individuals mistakenly believe it is acceptable.

HOW TO AVOID PLAGIARISM

Plagiarism is a complicated topic and comprehension of its complex issue is a precondition for successfully reacting to it (Pecorari, 2013). Therefore, the following simple five rules are effective to avoid plagiarism based on Ober (2013).

(1) Do not copy: It is not good writing to imitate verbatim words from any other paper or book (even if it is your own previously published work). Relatively short quotes are permissible if found inside quotation marks and the source is cited instantly after the quote. This would go without saying that it is gross plagiarism to copy without quotation marks and lack of sufficient references, but sadly this is happening.

(2) Write in your own words: Write out all your ideas to help you out without using someone else words or even the writing style of another. In general, that means you should avoid paraphrasing the maximum possible. Paraphrasing or rewriting someone else's text in your own words is only acceptable if it occurs minimally in the text (e.g., a paragraph) and at the end of the paraphrased passage, the source is cited. The easiest way to avoid plagiarism concerns here is not to make paraphrases. Using your own "speech" initial to pass the thoughts on. Should not mix the primary and borrowed text without referencing the borrowed text.

(3) Cite when in doubt: If you are citing yourself excessively for that, it could indicate that you do not write enough in your language. It is a message you should be following consider writing your paper over again. Popular words and phrases should never be quoted or placed into quotation marks, but any description of widely known terms must be correctly cited.

(4) Do not reuse photos, statistics, tables or text from one of your own previously published articles without reference. In general, it is safer not to republish a statistic, you have previously written. However, if you need to, please cite the original paper in the table or figure caption to make sure. If you have not kept copyrights, note in the text that it was from your earlier publication and seek permission. Do not recycle from one piece of paper to another. For every piece of paper, compose new text. When you fail to do such things, you will commit self-plagiarism which is intentional plagiarism, but sometimes unintentional.

(5) Ask permission: If you wish to use a figure, table or any data that has not been used published earlier and produced or compiled by someone who is not a co-author of your article, you have to ask their authorisation, and assign it to them. The same applies if you use their data to compose your own figure or table. With any published image, table or illustration, you plan to republish, request copyright permission.

What is common knowledge?

Students often do not need to recognise the source of their knowledge. For instance, students usually do not need to cite if a topic is a part of what we expect to be general or ‘common knowledge’ or public domain information. Review different general reference materials in the domain. Students can consider it ‘common knowledge’ if they find the information in more than one general reference material. Note that ‘common knowledge’ is limited to facts and does not include opinions or arguments that you could disagree with or argue against.

Question: how can the researcher avoid plagiarism?

Citation

What is citation: it is the process of identifying the sources which you have used in your research work. Citing sources requires the name of the author, the book title, house of publication, and date of publication. Citation is the most important process for avoiding plagiarism, it is also necessary for the readers who are interested in getting more information about the topic. It shows the efforts that the researchers did during his research and gives external support and increases the strength of his ideas (Paltridge& Starfiled; 2007 ; p196).

PURPOSE OF CITATIONS: There are four main reasons to include citations in your papers:

- *To avoid plagiarism.
- *To mention the sources or references which you used when writing the paper.
- *To enable readers to follow up on the source materials.
- *To demonstrate that your paper is well-researched.

WHAT TO CITE: You should cite all direct quotations, paraphrased factual statements, and borrowed ideas. The only items that do not need to be cited are facts that seem to be common knowledge, such as the date of the stock market crash 1929. However, if you present facts in someone else's words, you should cite the source of those words; in addition, if you paraphrase or summarize large amounts of information from one source. Failure to mention the source of the ideas of an original author is regarded as stealing such ideas, .i.e. plagiarism. Most people do not intend to commit plagiarism but may do so unconsciously because they are in a hurry.

TYPES OF CITATIONS: Citations can appear in: quotations, footnotes, parenthetical notes, source lines, endnotes and bibliographies. Each form contains similar information arranged in a different way:

1) Direct Quotation: quotations which appear between inverted commas require direct citation which appears before or after the speech:

“There is a correlation between students’ expressions in a class and the grade that the students earn in that class”; says (Milton 02) (according to MLA)

Milton (2004, p. 2) says: “There is a correlation between students’ expressions in a class and the grade that the students earn in that class”. (according to APA)

1) Parenthetical notes or In-text citation: is a citation style where partial citations are enclosed within brackets and are placed within the text. In-text citation requires:

Author’s last name and page number (according to MLA): Eg: (Smith 99)....

Author’s last name + year of publication + page number (according to APA):
Eg Smith (2004, p 99)

2 Footnotes: is to cite the source you refer to at the bottom of the page, that source is preceded by a number and the elements of the citation are separated by commas. Citing a source in a footnote requires: Author’s name (first name, last name), title of the book, house of publication, year of publication, the page number where the idea exists in the book.

- 1- Pitter Trudgill, *“Introducing Language and Society”*, Oxford University Press, 1992, p 16.

***REPEATING A CITATION in footnotes:**

Using Ibid. and op. cit.: These are Latin abbreviations used in footnotes in order to avoid repeating the full title of a source which is mentioned twice and more in the same research work.

Ibid means “in the same work”, and is used when the next source is similar to the last one, i.e. in the most recent citation; you write Ibid (year, page).

Op.cit means “in the work has been cited” and is used when the same reference is cited elsewhere in the same research work; you write last name of the author, (comma) Op cit (year, page).

Eg: 1- Pitter. Trudgill, “*Introducing Language and Society*”, Oxford University Press, 1992, p 16.

2- Ibid (1992, p 19);

3- R. Poirer, "Learning physics," (Academic, New York, 1993), p. 4.

6- Tudgill, Op.cit (1992, p24).

3) Source Lines: Source lines typically appear under charts, tables, and other graphical items.

4) Endnotes: are located on a separate page at the end of the paper and precede the bibliography page; they are used to specify pages/sections of sources. The only difference between footnotes and endnotes is their location within the text; endnotes are located on a separate page and footnotes are located at the bottom of the page on which their associated statements appear.

5) Bibliography: it lists all the references you used in your research paper. The bibliography appears at the end of the paper. In the bibliographies:

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*The first author's name is inverted (last name first), and most elements are separated by periods.

*Entries are arranged alphabetically by the author's last name, or by the first word of the title if no author is listed.

*The title should be "Bibliography" and should appear centered at the top of the page

* No page numbers in the bibliography.

MLA: Trudgill, Pitter. *"Introducing Language and Society"*. Oxford University Press. 1992.

APA: Trudgill, Pitter. 1992. *"Introducing Language and Society"*. Oxford University Press.

Task One: read the following statement and cite it correctly using the different types of citation:

* In his book entitled "Introducing Language and Society" which was published in 1992 by Oxford University Press; Trudgill on page number (13) describes bilingualism as "the ability of an individual to speak two languages"

Styles of Citation

American Psychological Association (APA)

Definition: The American Psychological Association (APA) is a citation style which provides a foundation for effective scholarly communication because it helps authors to present their ideas in a clear, concise, and organized manner.

Disciplines that Use APA: The APA is appropriate for research papers in psychology, education, business, and engineering, health sciences, and social sciences (American Psychological Association ; 2022 ; p16).

General guidelines for citation in APA

1. List of References:

Source	Bibliography (References)
Book	Author 1 and author2. (year). Title of the book (edition). Publisher. ➤ Eg: Trudgill, Piter. (1992). “Introducing Language and Society”. Penguin Books LTD. London.
Article	Author1 and Author 2. (year). Title of the article. Name of the journal, volume number (issue), pages (pp). URL, DOI Eg: Becker, Anna. (2017). Gender in the History of Early Modern Political Thought. The Historical Journal, vol. 60, no 4, pp 843-863.
Master/ Doctoral Thesis	Unpublished: Author. Title. Year. University, Master Thesis. Author. Title. Year. University, LMD Thesis. Author. Title. Year. University, PhD Thesis. Published: Author. Title. Year. University, Thesis type. Publisher, year of publication.

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Encyclopedia	Author’s last name, first name. (date). “title of encyclopedia or dictionary”. Publisher. Editor’s first and last name, edition. Volume number. Pages. Online name of database, permalink. URL or DOI. Retrieving date.
Official document	Name of the government. Name of the agency. title of the publication (<i>italics</i>). Publisher, year published. Title of the database or website (<i>italics</i>). DOI or URL. Congressional or Parliamentary information or location. Date of access.
Book written in different languages	Author. (year). Original Title [translation of the title in English]. publisher Eg: Piaget, J. and Inhelder, B. (1966). <i>La Psychologie de L’Enfant</i> [The Psychology of the Child]. Quadrige.

Source : Benketaf Hafid. (2023-2024). « *Lectures in Academic Writing An A-Z Handbook for Writing Academic Essays, Reports, Articles, Master’s Theses, and Doctoral Dissertations* ». University of Bechar ; p 101-102.

2. Parenthetical citation :

Here, both the author and the date separated by a comma appear between brackets at the end of the sentence before the full stop.

Eg: **(one author)**: sentence(Hudson, 1996).

(two authors): sentence(Hudson and Wardhugh, 1996).

(three or more authors): sentence(Hudson et.al,1996).

(group, association, university): sentence.....(Oxford University, 2020).

(Unknown author): here the title replaces the author, it is either italicized or appears between inverted commas. Eg, sentence(*title*, 1965).

Sentence(“title”, 1965).

Sentence(“Anonymous”, 1989)

3. Narrative citation (in text citation)

Here, the name of the author appears within the text followed by the date that appears in brackets. Eg: Hudson (1996) noted that

Eg: **(one author)**: Hudson (1996) states that

(two authors): Hudson and Wardhugh (1996) claimed that

(three or more authors): Hudson et.al (1996) agreed on.....

(group, association, university): Oxford University (2020) defines ...

(Unknown author): here the title replaces the author, it is either italicized or appears between inverted commas. Eg, *title* (1965).

“title” (1965).

“Anonymous” (1989)

4. **Direct quotes** : Block quotes (of 40 words or more): Do not use quotation marks, start the quotation on a new line indented in from the left margin. The parenthetical reference goes after the final period.

Example : Researchers have studied how people talk to themselves:

Inner speech is a paradoxical phenomenon. It is an experience that is central to many people’s every day lives, and yet it presents considerable challenges to any effort to study it scientifically. Nevertheless, a wide range of methodologies and approaches have

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combined to shed light on the subjective experience of inner speech and its cognitive and neural underpinnings. (Alderson-Day & Fernyhough, 2015, p. 957).

5. Footnotes:

Footnote in APA style is used to provide additional information it appears at the bottom of the page. It should convey just one idea briefly.

Modern Language Association

(MLA)

Definition: MLA is a citation style that is used across many disciplines, most commonly in the humanities. When using MLA documentation style, you need to reference your sources by using a combination of a list of **works cited** and **parenthetical notation**. Whenever you refer to or use another's words, facts or ideas in your paper, you are required to cite the source. Generally, brief parenthetical notations consisting of the **author's last name** and a **page reference** are sufficient (MLA Handbook ; 2021 ; p25).

General guidelines for citation in MLA

Works Cited

Book:

Last name, First name MI. Title of Source. Version, Publisher, publication date, page numbers.

Example: Gleick, James. Chaos: Making a New Science. Penguin, 1987.

Journal Article:

Last name, First name MI. "Title of Source." Title of Container, vol. #, no. #, Publisher, publication date, location.

Example: Dolby, Nadine. "Research in Youth Culture and Policy: Current Conditions and Future Directions." Social Work and Society: The International Online-Only Journal, vol. 6, no. 2, 2008, www.socwork.net/sws/article/view/60/362.

Webpage:

Last name, First name MI. "Title of Source." Title of Container, Publisher, publication date, URL.

Example: "Social Care and Support Guide." National Health Service, <https://www.nhs.uk/conditions/social-care-and-support-guide/>.

Parenthetical citation :

Here, both the author and the page number, without punctuation between them, appear between brackets at the end of the sentence before the full stop.

Example: (Author Page) .(Freeman 10)

In text citation :

In MLA style, in-text citations should be clear and brief. The basic format for MLA in-text citations is (Author Page). Note that MLA does not require a comma between these source elements.

For example: As a result, we are led to believe that the dog was a cat all along (Smith 29).

Footnotes

Footnotes, both explanatory footnotes and bibliographic footnotes, are additional blurbs of brief information given by the author to help the audience better understand a topic, term, event, person, etc. Footnotes can also provide reference information for the reader to access citations to a specific term or topic.

Model : First name, last name, « title of the source », publisher, date of publication, page number.

Chicago Manual Style

CMS

❖ **Definition** : Chicago Manual of Style (CMS) is primarily used in the humanities and social sciences. It's a comprehensive style guide that offers two main citation styles: Author-Date and Notes-Bibliography (Chicago Manual of Style; 2017; p17).

Author-Date Style: In this style, the author's last name and the publication year are included in parentheses within the text, and a corresponding full citation is provided in the reference list at the end of the document.

Notes-Bibliography Style: In this style, footnotes or endnotes are used to cite sources within the text, and a bibliography is included at the end of the document containing full citations for all sources referenced.

These two citation styles offer flexibility and are widely used in academic writing, particularly in disciplines like history, literature, art history, and social sciences, where detailed citation and referencing are important.

1. Direct quotation : if a quote is less than five lines, incorporate it into a sentence. Enclose the quoted material in double quotation marks - “ ” . Place the superscript number at the end of the sentence or quotation.

Quotation example: Kim and Koh’s investigation into the relationship between smartphone obsession and self-esteem suggested that “individuals with low self-esteem may feel more anxious, and being anxious can increase one's obsession with smartphone use.”¹

2. In-text-citation : it is noted by a superscript. Here the citations are consecutively numbered (i.e., 1, 2, 3...) ; and must always refer to a specific source in the footnotes/endnotes and bibliography.

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Example: “John Mayer is the foremost guitarist of his day.”¹

Example: “Included in Mayer’s collection of guitars is the Fender Stratocaster and Martin 00-45SC.”²

3. Footnotes/Endnotes : both footnotes and endnotes provide citation information ; the footnote citation is at the bottom of the page and endnote citation is listed at the end of the work/section.

How to Format Footnote/Endnotes : each note refers to a specific, in-text citation superscript number. List the author’s first and last name, title of source, publication information, and pages used.

Examples: 1. John Mayer, *Guitar Essentials* (New York: Penguin Press, 2016), 210– 16.

2. Mary Lam and Jessica Scarpulla, *Water Politics in Riverside, CA* (New York: Simon & Schuster, 2015), 40.

- If a source is repeated, you may use a shortened note that includes the author’s last name, shortened title and page number.

Examples: 3. Mayer, *Guitar Essentials*, 240.

4. Lam and Scarpulla, *Water Politics*, 50.

- If a source is the same as that used in the preceding note, you may use ‘Ibid’ along with a page number. If the pages are the same, you will not need a page number.

Example: Ibid.

Ibid., 234.

- NOTE: As of CMS 17th ed., the use of Ibid. is discouraged ; use the shortened note format unless your instructors tells you otherwise.

4. Bibliography: Located at the very end of your paper ; it should be titled Bibliography and centered at the top of the page.

List the author's last name, first name, title of source, publication information and publication year. Separate each item with a period.

Examples: Lam, Mary, and Jessica Scarpulla. Water Politics in Riverside, CA. New York: Simon & Schuster, 2015.

Mayer, John. Guitar Essentials. New York: Penguin Press, 2012.

The Council of Scientific Education

(CSE)

Definition : The CSE style is mainly used in the areas of biology, medicine, and natural sciences, although in recent years its use has been extended to all sciences. Its emphasis on clear and concise citation practices makes it well-suited for these disciplines where accuracy and precision are paramount. However, as scientific communication evolves, CSE has been increasingly adopted across various scientific fields due to its structured and standardized approach to citing sources. This broader adoption reflects the need for consistent referencing practices across all scientific disciplines.

In-Text Citations : In-text citations (also known as parenthetical references) include the author's last name and year of the reference without a comma, e.g., (Smith 2011). If there is no author, include the first word(s) of the title (enough to identify the source) followed by an ellipsis (...), e.g., (Biological research ... 2007). For 2 authors, list both last names in the in-text citation separated by “and” (NOT an ampersand “&”), e.g., (Haggarty and Gaynor 2008).

Direct Quotation : The CSE citation style does not have specific guidelines for citing a direct quotation because they are most often not used in scientific writing. From the wording and examples in the manual, when the exact same words are cited, they should be enclosed in quotation marks. Then, depending on the system used, it is necessary to add the reference number or the name and year of the reference. The CSE citation style primarily focuses on referencing sources in scientific writing, which typically relies more on paraphrasing and summarizing rather than direct quotations. This is because scientific writing aims for clarity and conciseness, often prioritizing the transmission of information over the direct expression of individual

viewpoints. However, if a direct quotation is necessary, CSE recommends following a similar format to paraphrased or summarized citations, providing the author's name, publication year, and page number if available.

Bibliography :

Book with One Author: Doe J. Title of the Book. Place of Publication: Publisher; Year.

For example: Smith AB. Introduction to Biology. New York: Wiley-Liss; 2010.

And for a journal article:

Journal Article with One Author: Doe J. Title of the Article. Abbreviated Journal Name. Year; Volume(Issue):Page Range.

For example: Smith AB. The Role of Genetics in Cancer Research. J Cancer Res. 2018;10(5):123-135.

Literature Review

Definition:

The theoretical framework for your study must emerge from the review of literature and must have its grounding in empirical evidence (Kumar ; 2014 ; p236); literature review includes:

- A conceptual framework and the theoretical and empirical information about the main issues under study;
- Some of the major research finding relating to your topic and the gaps identified by previous researches.

The literature review should also raise issues related to the methodology you are proposing; it is also important because it helps you to establish a link between your what you are proposing to examine and what has already been achieved, it allows you to compare your findings with those of others; it provides a theoretical background to your study (Hannah; 2019; p22). In general; the literature review helps you in three ways:

1) ***It brings clarity and focus to your research problem:*** you cannot effectively do a research without some ideas of the problem you wish to investigate. Reviewing the literature shows you what aspects of your subject have been examined by others, what they have found about these aspects, what gaps they have identified and what suggestions they have made for further researches.

2) ***It improves your research methodology:*** going through literature provides you with the methodologies used by others so as to find answers to research questions similar to the one you are investigating. It tells you if others have used methods and procedures similar to the ones used by you, and which procedures and methods have worked well for them and what problems they have faced. In this case you will be in a better position to select a

methodology that is capable of providing valid answers as you will increase your confidence in the methodology you plan to follow (Hannah; 2019; p; 68).

3) *It broadens your knowledge base in your research area:* it is important to know what other researchers have found, what theories have been put and what gaps exist in the relevant body of knowledge. Thus; you will identify what has been established and you will be acquainted with the methods used in similar studies and be able to form a robust methodology. You will also develop and extend your knowledge base in the subject area of your study.

The difference between a literature review and summary of literature:

A summary of literature is a description of the significant findings for each piece of work that you have gone through as part of your literature search. The summary basically involves listing the major findings relevant to your study under each appropriate source. The sources searched can be listed in any order. In the review of literature the main findings are organized around the main themes that emerge from your literature. Different studies in which the same theme is identified are referenced in one place where the theme is being discussed as part of the literature review; and under each theme the main findings relating to it from all the sources you have searched are mentioned and compared, pointing to similarities and differences between them. A summary of the literature is a summary of the main findings from each relevant reference you searched; in a literature review you describe each theme that emerged during the literature search, citing its origins, comparing it with others and integrating it in a logical manner with the rest (Kumar ; 2011 ; p85).

What is the Purpose of Literature Review?

A literature review in research serves several important purposes within academic and research contexts. Here are some key objectives and functions of a review of literature in research (Hannah; 2019; p; 89).

- **Contextualizing the Research Problem:** The literature review provides a background and context for the research problem under investigation. It helps to situate the study within the existing body of knowledge.
- **Identifying Gaps in Knowledge:** By identifying gaps, contradictions, or areas requiring further research, the researcher can shape the research question and justify the significance of the study. This is crucial for ensuring that the new research contributes something novel to the field.
- **Understanding Theoretical and Conceptual Frameworks:** Review of literature in research helps researchers gain an understanding of the theoretical and conceptual frameworks used in previous studies. This aids in the development of a theoretical framework for the current research.
- **Providing Methodological Insights:** Another purpose of literature reviews is that it allows researchers to learn about the methodologies employed in previous studies. This can help in choosing appropriate research methods for the current study and avoiding pitfalls that others may have encountered.
- **Establishing Credibility:** A well-conducted literature review demonstrates the researcher's familiarity with existing

scholarship, establishing their credibility and expertise in the field. It also helps in building a solid foundation for the new research.

- **Informing Hypotheses or Research Questions:** The literature review guides the formulation of hypotheses or research questions by highlighting relevant findings and areas of uncertainty in existing literature.

How to review the literature

The literature review should be focused around your research problem and should concentrate on the main themes of it; it should be undertaken as if you seek to answer the following questions:

- a) What is already known in the area?
- b) What is not known or what are the gaps in the existing knowledge?
- c) What questions have remained without answers?
- d) Are there some conflicting ideas?
- e) What theories are relevant to your study?
- f) What suggestions have been made for further research?
- g) What research strategies have been employed by others undertaking similar research.

A literature review is a structured process of identifying, evaluating, and synthesizing existing scholarly research on a specific topic. It identifies key themes, debates, and gaps in the literature.

1. Define Your Research Question : Before searching, you need a focused topic or question. It should be narrow enough to be manageable but broad enough to find sufficient literature. Use a framework like PICO (Population, Intervention, Comparison, Outcome) to establish clear parameters.

2. Search for Relevant Literature : Search credible academic databases and repositories (e.g., Google Scholar, Scopus, PubMed, or discipline-specific

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databases). Develop a list of keywords, synonyms to refine your searches. Track your search strings, dates, and databases used so you can easily replicate the process.

3. Screen and Evaluate Sources : Not all sources are equally relevant. Set strict **inclusion and exclusion criteria**.

- Filter by publication date, methodology, and geographical focus.
- Assess the quality and credibility of the sources—rely heavily on peer-reviewed journals and seminal texts.

4. Extract and Synthesize Data : As you read, look beyond simple summarization. Group the literature by themes, methodologies, or theoretical frameworks.

- Identify the **5 Cs**: **cite** the authors, **compare** their findings, **contrast** their disagreements, **critique** their limitations, and **connect** them to your overarching research question.

5. Outline and Structure : Organize your thoughts into a logical, claim-based outline before writing. A common structure includes:

- **Introduction:** Defines the topic, explains its significance, establishes your criteria, and states the core research question.
- **Body:** Thematic paragraphs analyzing and synthesizing the sources.
- **Conclusion:** Summarizes the current state of knowledge, highlights the primary limitations, and identifies the "research gap" your study will address.

6. Write and Refine : Write your draft by prioritizing scholarly arguments and continuous citations. Ensure all your citations and bibliography are formatted consistently (e.g., APA, MLA, Harvard) (Kumar ; 2011 ; p123).

grammatical errors, technical language and finalize your draft before submission.

How to Structure Your Literature Review?

Writing a literature review involves summarizing and synthesizing existing research on a particular topic. A good literature review format should include the following elements.

Introduction: The introduction sets the stage for your literature review, providing context and introducing the main focus of your review.

- **Opening Statement:** Begin with a general statement about the broader topic and its significance in the field.
- **Scope and Purpose:** Clearly define the scope of your literature review. Explain the specific research question or objective you aim to address.
- **Organizational Framework:** Briefly outline the structure of your literature review, indicating how you will categorize and discuss the existing research.
- **Significance of the Study:** Highlight why your literature review is important and how it contributes to the understanding of the chosen topic.
- **Thesis Statement:** Conclude the introduction with a concise thesis statement that outlines the main argument or perspective you will develop in the body of the literature review.

Body: The body of the literature review is where you provide a comprehensive analysis of existing literature, grouping studies based on themes, methodologies, or other relevant criteria.

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- **Organize by Theme or Concept:** Group studies that share common themes, concepts, or methodologies. Discuss each theme or concept in detail, summarizing key findings and identifying gaps or areas of disagreement.
- **Critical Analysis:** Evaluate the strengths and weaknesses of each study. Discuss the methodologies used, the quality of evidence, and the overall contribution of each work to the understanding of the topic.
- **Synthesis of Findings:** Synthesize the information from different studies to highlight trends, patterns, or areas of consensus in the literature.
- **Identification of Gaps:** Discuss any gaps or limitations in the existing research and explain how your review contributes to filling these gaps.
- **Transition between Sections:** Provide smooth transitions between different themes or concepts to maintain the flow of your literature review.

The Research Design

The formidable problem that follows the task of defining the research problem is the preparation of the design of the research project, popularly known as the “research design”. After determining *what* you want to study i.e. RP, you need now to determine *how* you should conduct your study i.e. what procedures will you adopt to obtain answers of your questions ? (Kumar ; 2014 ; p220).

Definition : a research design is the road map that you should follow during your research process in order to find answers for your questions as valid all, objectively, accurately, economically as possible. It details what and how different methods and procedures are applied during the research process. It includes an outline of what will you do from writing the hypotheses/ research questions to the final analysis of data. The research design should include the following elements :

- Name of the study
- What is the study about?
- Where will the study be carried out?
- What Methods of data collection are used and why
- Who are your Samples ; their gender, age, etc
- How will the samples be contacted
- Why is the study being made?
- What type of data is required?
- How will the data be analyzed?
- In what style will the report be prepared?

Keeping in view the above stated design decisions; one may split the overall research design into the following parts:

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(a) **the sampling design** which deals with the method of selecting samples to be observed for the given study;

(b) **the observational design** which relates to the conditions under which the observations are to be made;

(c) **the statistical design** which concerns with the question of how many items are to be observed and how the information and data gathered are to be analyzed;

(d) **the operational design** which deals with the techniques by which the procedures specified in the sampling, statistical and observational designs can be carried out.

In brief, research design must, at least, contain: (a) a clear statement of the research problem; (b) procedures and techniques to be used for gathering information; (c) the population to be studied; and (d) methods to be used in processing and analyzing data.

FEATURES OF A GOOD DESIGN

Generally, the design which minimizes bias and maximizes the reliability of the data collected and analyzed is considered a good design. The design which gives the smallest experimental error is supposed to be the best design in many investigations. Similarly, a design which provides maximal information and provides an opportunity for considering many different aspects of a problem is considered most appropriate and efficient design. One single design cannot serve the purpose of all types of research problems; a research design appropriate for a particular research problem (Kumar ; 2014 ; p120).

Important concepts relating to research design

1. *Dependent and independent variables:* A concept which can take on different quantitative values is called a variable (able to change), concepts like weight, height, income are all examples of variables. If one variable depends upon or is a consequence of the other variable, it is called a dependent variable, and the variable that precedes to the dependent variable is named as an independent variable. For instance, if we say that height depends upon age, then height is a dependent variable and age is an independent variable. Another example; if we say that violence depends upon psychological problem, then violence is dependent while psychological problem is independent variable.

2. *Extraneous² variable:* Independent variables that are not related to the purpose of the study, but may affect the dependent variable are termed as extraneous variables. Example ; suppose you want to test the hypothesis of : there is a relationship between child's success and his social environment; in this case success is a dependent variable and social environment is an independent variable. Intelligence may as well affect the child's success, but since it is not related to the purpose of the study undertaken by the researcher, it will be termed as an extraneous variable. A study must always be so designed that the effect upon the dependent variable is attributed entirely to the independent variable(s), and not to some extraneous variable or variables.

3. *Control:* One important characteristic of a good research design is to minimize the influence or effect of extraneous variable(s). The technical term 'control' is used when we design the study minimizing the effects of extraneous independent variables.

² Not directly related to a given situation

4. ***Confounded relationship***: When the dependent variable is not free from the influence of extraneous variable(s), the relationship between the dependent and independent variables is said to be confounded (annoyed) by an extraneous variable(s).

5. ***Research hypothesis***: The research hypothesis is a predictive statement that relates an independent variable to a dependent variable. Usually a research hypothesis must contain, at least, one independent and one dependent variable. Predictive statements which are not to be objectively verified or the relationships that are assumed but not to be tested, are not termed research hypotheses.

6. ***Experimental and non-experimental hypothesis-testing research***: When the purpose of research is to test a research hypothesis, it is termed as hypothesis-testing research. It can be of the experimental design or of the non-experimental design. Research in which the independent variable is manipulated through making experiments is termed ‘experimental hypothesis-testing research’ and a research in which an independent variable is not manipulated without making experiments is called ‘non-experimental hypothesis-testing research’. For instance, suppose a researcher wants to study whether intelligence affects reading ability for a group of students ; for this purpose he randomly selects 50 students and tests their intelligence and reading ability by calculating the coefficient of correlation between the two sets of scores.

This is an example of non-experimental hypothesis-testing research because here in the independent variable, intelligence is not manipulated. But now suppose that our researcher randomly selects 50 students, he divides it into two group A who take the usual studies program, and group B, who have the special studies program. At the end of the course, he tests each group in order to judge the effectiveness of the training program on the student’s

performance-level. This is an example of experimental hypothesis-testing research because in this case the independent variable is manipulated.

7. *Experimental and control groups*: In an experimental hypothesis-testing research when a group is exposed to usual conditions, it is termed a ‘control group’, but when the group is exposed to some experimental or special condition, it is termed an ‘experimental group’. In the above illustration, the Group A can be called a control group and the Group B an experimental group. If both groups A and B are exposed to special studies programs, then both groups would be termed ‘experimental groups.’

8. *Treatments*: The different conditions under which experimental and control groups are put are usually referred to as ‘treatments’. In the illustration taken above, the two treatments are the usual studies program and the special studies program.

9. *Experiment*: The process of examining the truth of a statistical hypothesis is known as an experiment. Experiments can be of two types viz : absolute experiment which includes only one element ; and comparative experiment which requires a comparison between many elements. If we want to determine the impact of a substance on the production of a crop, it is a case of absolute experiment; but if we want to compare the impact of one substance with the impact of some other substances, our experiment then will be termed as a comparative experiment.

10. *Experimental unit(s)*: where different treatments are used, are known as experimental units. Such experimental units must be selected (defined) very carefully (Kumar ; 2011 ; p164).

DIFFERENT RESEARCH DESIGNS

Different research designs can be categorized into: (1) research design in case of exploratory research studies; (2) research design in case of descriptive and diagnostic research studies, and (3) research design in case of hypothesis-testing research studies.

1. Research design in case of exploratory research studies: exploratory research studies are also termed as formulative research studies. The main purpose of such studies is to formulate a problem that seeks for more precise investigation or of developing the working hypotheses. It also emphasizes on the discovery of ideas and insights.

2. Research design in case of descriptive and diagnostic research studies: descriptive research studies are concerned with describing the characteristics of a particular individual or of a group ; whereas diagnostic research studies determine the frequency with which something occurs or its association with something else.

3. Research design in case of hypothesis-testing research studies: hypothesis-testing research studies are those where the researcher tests the hypotheses of causal relationships between two variables. Such studies require procedures that will not only reduce bias and increase reliability.

* After the researcher finishes his design he should start undertaking his study design, that is he should begin collecting data, selecting his samples, analyzing the data and drawing conclusions and results.

Exercise: read the following hypotheses and determine the dependent and the independent variables; and the extraneous variables if they exist.

1. Violence depends on bad environment.
2. In fact; prosperity is reached not only by economic development but also through education.
3. Autism is a matter of biological defect of affective contact although many professionals attribute it to a “refrigerator mother.”
4. People's willingness to obey authority figures can be explained by economic factors.
5. Many economic crises are derived from political disputes
6. Drinking when driving will inevitably lead to a traffic accident.
7. The failure of the company was due to the bad management and lack of experience.
8. The book was finally published after 05 years of hard work and deep research.

Writing a Research Proposal

All academic research papers, both qualitative and quantitative, are preceded by a research proposal which informs your academic supervisor and reader about your conceptualization of the total research process that you propose to undertake so that they can examine its validity and appropriateness. In any academic field, your research proposal will pass by a number of committees for approval. Therefore; you need to write a research proposal whether your study is qualitative or quantitative, and in both cases you use similar structure; the main difference lies in the procedures and methodologies for undertaking the research paper (Kumar ; 2014 ; p101).

Functions of the research proposal: the research proposal serves many functions, such as:

- It reminds both the researcher and his reader of what you are supposed to do at different steps of the research project. It is the road map designed by you and approved by your university or academic institution to guide you through your research journey.
- It outlines the various tasks you plan to undertake in order to fulfill your research objectives, test hypotheses, or obtain answers for the research questions
- It details the operational plan and ensures the validity of the methodology used for obtaining answers for the research questions accurately and objectively.
- It is a scientific document provided for others to judge the appropriateness of what you are proposing.
- It seeks to convince your supervisor or reviewer that your proposed methodology is meritorious (deserves praise), valid, appropriate and workable in terms of getting answers to your questions and hypotheses.

In order to achieve these functions, your research proposal must tell your supervisor or reviewer:

- What you are proposed to do in your study;
- How you plan to find answers to what you are proposing;
- Why you selected the proposed investigation strategies.

Content of the research proposal: a research proposal should contain the following information about your study:

- ✓ Introduction including brief literature review;
- ✓ The theoretical framework of your study;
- ✓ The conceptual framework that constitutes the basis of your study;
- ✓ The objectives and research questions;
- ✓ The hypotheses to be tested;
- ✓ The study design you want to adopt;
- ✓ The setting of your study;
- ✓ The research methods and instruments you are planning to use;
- ✓ The sampling design and sample size;
- ✓ The ethical issues and how you propose to deal with them;
- ✓ The data processing procedure;
- ✓ The proposed chapters of the report;
- ✓ The problem and limitations of the study;
- ✓ The proposed time-frame of the project.

A research proposal should include the above contents; universities and other academic institutions may have differing requirements regarding the style and content of a research proposal, and such requirements may also vary within an institution from one discipline to another or from one supervisor to another. Therefore; your research proposal must follow the suggested guidelines and be written in an academic style; it must contain the appropriate

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references in the body of the text and in the bibliography at the end (Kumar ; 2014 ; p280).

Preamble/Introduction

The proposal starts by an introduction which presents some of the information including: an overview of the area under investigation; historical attitudes relevant to the study area; philosophical or ideological issues relating to the topic; major theories, if any; problems and advances in the topic.

Literature Review

The theoretical framework for your study must emerge from the review of literature and must have its grounding in empirical evidence; literature review includes:

- A conceptual framework and the theoretical and empirical information about the main issues under study;
- Some of the major research finding relating to your topic and the gaps identified by previous researches.

The literature review should also raise issues related to the methodology you are proposing; it is also important because it helps you to establish a link between your what you are proposing to examine and what has already been achieved, it allows you to compare your findings with those of others; it provides a theoretical background to your study.

Your literature review can include a critique of methodology relevant to your study; the critique of methods and procedures should be involved under their respective headings, for example: critique on the sampling design should be included under ‘sampling’. Note that the suggested research proposal should not specify a section for reviewing literature entitled “survey of the literature” or “literature review”; references to literature review should be integrated with your arguments and should be part of your research report.

It should be reviewed under the main themes that emerge from your reading and various issues should be discussed under their respective headings. For quantitative proposal you need to be very specific in proposing how to you are going to undertake each step of the research journey, whereas in qualitative proposal such details are not expected as your methodology is flexible and unstructured to accommodate in depth search.

Objectives of the Study

In this section; you include a statement of both the main objective of your study and the sub-objectives. The objectives inform the reader of what you want to achieve in the study and it is important to distinguish between objectives and sub-objectives. The main objective determines the overall opinion of your study, and the sub-objectives are the specific aspects of the topic that you want to investigate. Your main objective indicates the central opinion of your study whereas the sub-objectives identify issues you suppose to examine. The objectives of the study should be clearly stated; while each sub-objective should describe only one issue. Use verbs such as “to determine”, “to find out”, “to ascertain”, “to measure”, “to explore” in formulating sub-objectives which must be numerically listed and be worded clearly. The statement of objectives in qualitative studies is not precise as in quantitative studies; in qualitative studies you should simply mention an overall objective of the study. There is no place for ambiguity, non-specificity or incompleteness in the wording of the objectives and the sub-objectives.

Hypotheses to be Tested

A hypothesis is an assumption about the existence of a phenomenon or a relationship between two variables that you plan to test within the framework of your study. When you formulate a hypothesis you are obliged

to draw a conclusion toward it, i.e. test it and prove it. You may have many hypotheses in your study to test.

Study Design

The term is used to describe the type of design you are going to adopt to undertake your study; if it is going to be experimental, correlational, descriptive, etc. note that each study design has a specific format and attributes. At this phase; you should describe the study design you plan to use in order to answer your research questions, including the strength and the weakness of it. You should also detail the various procedures you intend to follow while doing the study design. One characteristic of a good study design is that it explains clearly the details of your research project; the study design should include the following elements:

- Who makes up the study population?
- Can each element of the study population be identified? If yes, how?
- Will a sample or the total population be studied?
- How will you get in touch with the selected sample?
- How will the sample accept to participate in the study?
- How will data be collected?
- How will confidentiality be preserved?
- How and where can respondents contact you if they have queries?

Overall; there are many study designs in quantitative research than in qualitative one. Quantitative study design is specific, well structured, has been tested for validity and reliability, and can be explicitly recognized. Qualitative study design either doesn't have these attributes or have them to a lesser degree.

The Setting

Briefly; you describe the organization, agency or community in which you will conduct your study. If the study is about a group of people; highlight some of the salient characteristics of the group like its history, size, composition, structure, etc, and draw attention to any available relevant information. If your research concerns an agency, office or organization, include the following in your description:

- The main services provided by the agency, office or organization;
- Its administrative structure;
- The type of client served;
- Information about the issues that are central to your research.

But if it is a community, you describe some features like:

- The size of the community;
- A brief social profile of the community;
- Issues relevant to the central theme of your study.

Measurement Procedures

This section should contain a discussion of your methods and instruments of data collection, and the details how and where you plan to use them. Justify your choice of the research tool(s) highlighting its strength and pointing its weakness. Then outline the major segments of your research tool and their relevance to the main objectives of the study. If you are using a standard instrument, describe its availability of evidence, reliability and validity. You should also discuss how you are going to measure the major concept used in your study.

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Sampling

Under this section of the research proposal include the following:

- The size of the sampling population (if known) and from where and how information will be obtained from them;
- The size of the sample you are planning to select and your reasons for choosing this size;
- An explanation of the sampling design you are proposing to use in the selection of the samples, i.e. random, non-random, mixed design, quota, expert sampling, etc.

Analysis of Data

Describe in general terms the strategy you intend to use for data analysis; for quantitative studies identify the main variables and for qualitative studies describe how you plan to analyze your interviews or observation notes to draw meaning from what your respondents have said about issues discussed or observations notes made. One of the common techniques is to identify the main themes through analyzing the content of the information gathered in the field.

Problems and Limitations

The term ‘problems’ refer to difficulties relating to logistical details, and ‘limitations’ indicate the structural problems of methodological aspects of the study, and both aspects should be communicated to your readers. In this section you can list all the problems that you face like: the lack of data, securing permission from certain agency or organization to carry out your study, obtaining samples, etc.

Appendix

Your must include a list of references as an appendix; and for the quantitative study also attach your research instruments.

Work Schedule

You must set yourself deadlines to complete the research within a certain time. List the various operational steps you need to undertake and indicate against each date by which you aim to complete it considering how long time you need.

How to Write a Research Proposal

Abstract

The abstract is a brief summary of the entire proposal, typically ranging from 150 to 250 words. It should outline the proposal's major headings: theoretical framework, research design, sampling method, instrumentation, and data and analysis procedures. A good abstract accurately reflects the content of the proposal, while at the same time being coherent and concise. The abstract will be the only paragraph in the entire proposal that is not indented. Because it highlights the entire proposal, it would be wise to wait and write the abstract last. This way, one merely has to reword information that was previously written.

Statement of the Problem

The "Statement of the Problem" is an imperative part of the proposal; one must notice a problem in the existing literature that has not been previously addressed. This will allow readers to understand why this particular study is important and how the study will attempt to answer new, never-before asked question.

Purpose of the Study

It is appropriate to include a sentence saying “The purpose of this study is...”. Clearly identify the goal of the study in one precise sentence.

Significance of the Study

It focuses on the implications of the proposed study, such as how the study’s results will affect future research, theory, policy, etc. Therefore, write this section with the focus on how the study’s results will benefit others. Address how well the study will do in terms of internal and external validity, and discuss the implications of the study affecting practice, policy, and scholarly/future research.

Research Question/Hypothesis.

Research questions *ask* what relationships exist between the different variables in the study, while the hypothesis *predicts* the relationship between variables. List all the research questions in the study, and then include the researcher’s hypothesis for the study. Format this section as seen below.

*For the purpose of this study, the following questions were addressed:

1. List the research question here.

*As part of this study, investigation included one research hypothesis:

1. List the study’s hypothesis here.

Definition of Terms

It is essential that one defines the central ideas or concepts of the research study. Therefore, carefully define each concept/variable that will be used in the study, citing other research studies as much as needed (Terry and Julie; 2012; p 54).

Summary of Literature

The summary of literature provides the background of the research problem and summarizes the theories. Review various dissertations, as they may help one to understand how to write and summarize previous research. When writing the literature review, it is wise to separate the various studies one finds into different categories. Briefly share the results of the various studies, including the most necessary information such as the studies' hypotheses, population, methodology, and results. Remember to separate each category of studies with a new subheading (Terry and Julie; 2012; p168). Do this as many times as needed.

Methodology

The “methodology” section is the most important section in the entire proposal, as it explains each step the researcher will take in order to conduct his or her research. This section discusses what measures the researcher will take in order to test the study's hypothesis.

Research Design

Include the proposed research design of the study, whether it is an experiment, observation, secondary data of analysis, etc. Then, explain how this design will derive results. Briefly discuss how the data will be administered and collected.

Sampling

This section should include an expanded discussion of the sample. First, discuss the population under consideration. From where will participants be selected? Second, give the sampling method to be used. Which *specific* sampling method will be used to select participants?

Data Collection and Analysis Procedures

Explain the general plan for how the data will be collected. Include any survey, interview, or observation procedures, and briefly discuss how the methods will measure the study. Include what statistics or analytical tools will be used for analyzing the data. When the proposal is finished, be sure to include a reference list for all sources used and will be used at the end of the proposal.

Writing a Research Report

The use of statistical procedures will reinforce the validity of your arguments, and the use of graphs to present the results, though not essential in some cases, will make the information easily understood by the readers. The research paper should not be based on assumptions about certain facts; but it must be accurate, unambiguous, logical and concise (Terry and Julie; 2012; p 69). The way you display your findings determines whether your paper is qualitative or quantitative. The qualitative research as described earlier is mostly presented in a descriptive or narrative form written around the major themes. On the other hand; the quantitative research presents numerical and quantitative data in the form of tables, charts, graphs, etc under which a description or explanation is needed.

Significance of the Report:

The final step in the research process is writing the report of your research. It is a very important step which communicates the findings of the study directly to the reader. Research report is considered a major component of the research study for the research task remains incomplete till the report has been presented and/or written. As a matter of fact even the most brilliant hypothesis, highly well designed and conducted research study, and the most striking generalizations and findings are of little value unless they are effectively communicated to others (Terry and Julie; 2012; p78). There are people who do not consider writing the report as an integral part of the research process; but the general opinion is in favor of treating the presentation of research results or the writing of report as part of the research project. Writing of report is the last step in a research study and requires a set of skills somewhat different from those called for in respect of the earlier stages of research (Michele and Whitfield; 2000 ; p55). This task should be

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accomplished by the researcher with utmost care; he may seek the assistance and guidance of experts for the purpose.

Developing a Draft Outline:

Before you start writing your report it is better to develop an outline; this means how you are going to divide your report into different chapters and planning what you will introduce in each chapter. It is better to develop the chapter around the significant sub-objectives or themes of the study (Michele and Whitfield ; 2000 ; p65)

Analyzing Data

After collecting the required data the researcher needs to analyze these data in order to draw conclusions, answer the research questions and prove the hypotheses on the basis of what he has gathered. The following step after collecting data is processing these data to reach the objectives of the study. The techniques of processing data in qualitative and quantitative studies are not the same since the types of data being collected in both types is distinct. (Kumar ; 2014 ; p269)

Analyzing Data in Quantitative Research

Quantitative data analysis is the process of using statistical and mathematical techniques to interpret numerical data, uncover patterns, and test hypotheses. It translates raw numbers into objective, measurable evidence to answer research questions. The analysis is typically divided into two statistical approaches:

1. Descriptive Statistics : Descriptive statistics summarize the basic features of a dataset, allowing you to understand the characteristics of your sample without drawing broader conclusions.

- **Measures of Central Tendency:** Identify the center of your data using the mean, median, and mode.
- **Measures of Variability:** Evaluate how spread out the data is using standard deviation, variance, and range.
- **Frequency Distributions:** Summarize the number of times specific values occur within a dataset.

2. Inferential Statistics : Inferential statistics allow you to make predictions or generalizations about a larger population based on a smaller sample.

- **Hypothesis Testing:** Evaluates assumptions (the null and alternative hypotheses) using (p) -values to determine statistical significance.
- **Regression Analysis:** Assesses the relationship between variables to predict outcomes (e.g., how one independent variable affects a dependent variable).
- **ANOVA & t-tests:** Compares the means of different groups to determine if the differences are statistically significant.

Best Practices

1. **Data Cleaning:** Before analysis, data must be cleaned to handle outliers, remove duplicates, and address missing values.
2. **Determine Data Types:** Identify whether your variables are *categorical* (e.g., gender, eye color) or *numerical* (e.g., height, temperature) to determine which statistical tests are appropriate.
3. **Draft a Statistical Analysis Plan (SAP):** Outline your planned statistical tests before running the data to avoid bias and ensure alignment with your research goals.

Analyzing Data in Qualitative Research

Qualitative data analysis is the systematic process of organizing and interpreting non-numerical data—such as interview transcripts, field notes, and audio—to uncover deep meaning, patterns, and themes. Rather than measuring variables, it focuses on context, human experience, and understanding the "why" and "how" behind a phenomenon.

Core Steps in the Analysis Process

1. **Organize and Prepare:** Transcribe audio, scan documents, and compile raw data into a structured format.
2. **Familiarize:** Read and re-read the data to immerse yourself in the content and context before making analytical decisions.
3. **Coding:** Break down the text into smaller, meaningful chunks and assign descriptive labels that capture the core idea, emotion, or action.
4. **Categorize and Themed:** Group similar codes together to form broader, overarching themes or patterns.
5. **Interpret:** Synthesize the themes to build a logical narrative, answering your central research question while preserving the voice of the participants.

Common Methodological Approaches: Different approaches serve different research goals:

- **Thematic Analysis:** Identifies, analyzes, and reports patterns (themes) across a data set.
- **Grounded Theory:** Builds new theories or models directly from the collected data rather than testing existing ones.
- **Content Analysis:** Systematically quantifies the presence of certain words, concepts, or themes to interpret their meaning.
- **Phenomenological Analysis:** Explores the lived experiences of individuals regarding a specific concept or event.

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Activity: answer the following questions:

1. What is/are the difference(s) between data analysis in quantitative and qualitative research papers?
2. When can the researcher analyze quantitative data manually?

Displaying Data

Methods of Communicating and Displaying the Analyzed Data

After analyzing the required data through a quantitative or qualitative method, the next task is to present your findings to reader. The main purpose of using data display technique is to make the findings easy and clear to understand. There are two styles of writing in research: firstly; a descriptive and narrative style; and secondly an analytical style with factual information incorporated in the text. The descriptive and the narrative style are more prevalent in qualitative studies and the analytical in quantitative studies. In qualitative research texts become the dominant and usually the sole mode of communication, while in quantitative studies texts are commonly combined with other forms of data display. Hence the researcher should decide the best way of presenting his findings to the reader; and within those two approaches there are many ways of presenting information. There are many ways of displaying data but the most common ones are: texts, tables, graphs, and statistical measures. One of the most important choices you need to make is to decide whether a set of information is best presented as a text, table, or graph (Kumar ; 2011 ; p280).

1) Texts: they are common both in qualitative and quantitative research studies mainly in the former. The researcher must know how to communicate the results effectively keeping in mind the level of understanding of the readers; therefore his style must be balanced between academic facts and the reading capacities of the readers. Moreover he should have a command on the language and clarity of thoughts in order to achieve good communication. Your writing must be thematic, must have a body of literature citing references, must follow a logical progression of thought, and the layout must be attractive and pleasing to the eyes (Kumar ; 2011 ; p281).

2) Tables: they are the most common method of presenting analyzed data in quantitative studies; they usually offer a useful means of presenting large amount of detailed data in a small space. A table has five parts:

a. **Title:** which indicates the table number and describes the type of data contained. Each table in the research must be given its number; similarly all the tables are sequentially numbered. Tables in the dissertation are given first the number of chapter and then the number of the table separated by a full stop; as in: Table 2.1., means that it is the first table in chapter two. The title can be written at the top or at the bottom of the table.

b. **Stub:** it refers to the subcategories of variable listed in the left hand column of each table. It is usually the first column in the left which lists all the items about which information is provided in horizontal rows.

c. **Column headings:** it refers to the subcategories of a variable listed along the top of the table.

d. **Body:** it is the central part which contains the analyzed data.

e. **Supplementary notes or footnotes:** this one refers to additional information about the table or the data and sometimes, this part can be also used to mention the source of the table if the data are taken from another reference. There are usually four types of footnotes: source notes, general notes, notes on specific parts of the table, and notes on the level of probability. The source should be identified at the bottom of the table labeled by the word “sources” (Kumar ; 2011 ; p282). Example:

Title

Table 1.1: Attitudes about Uranium Mining by Age

(x-axis)

Column heading

<i>Attitudes towards Uranium mining</i>	<i>Age of Respondents</i>				
	<i><25</i>	<i>25-34</i>	<i>35-44</i>	<i>45-54</i>	<i>55+</i>
<i>In favor</i>					
<i>uncertain</i>					
<i>Against</i>					
<i>Total</i>					

Stub (y-axis)

Body

Source:

Supplementary notes

Types of table: there are three types of table; these are:

Univariate: which contains information about one variable;

Bivariate: which contains information about two variables;

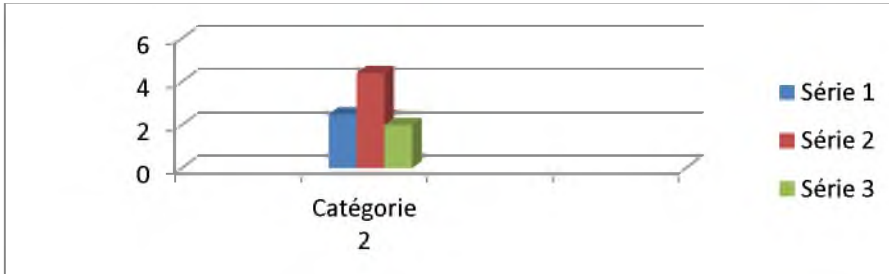
Polyvariate: which contain information about more than two variables.

3) Graphs: graphic presentation can make analyzed data easier to understand and effectively communicate what is supposed to show. The main objective of a graph is to present the data in a way that is easy to interpret and interesting to look at. There are different types of graphs and when constructing any type you should remember that:

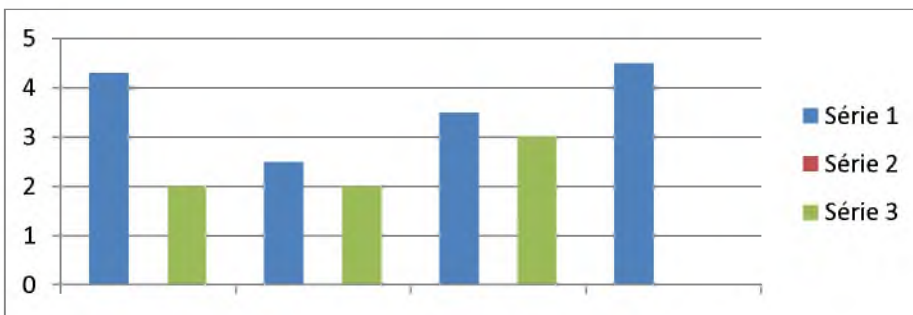
- a graphic presentation is constructed on two axes: horizontal and vertical; horizontal axis is represent by “x-axis” and the vertical axis is referred to by “y-axis”;
- a graph should have a title that describes its content

Types of Graphs

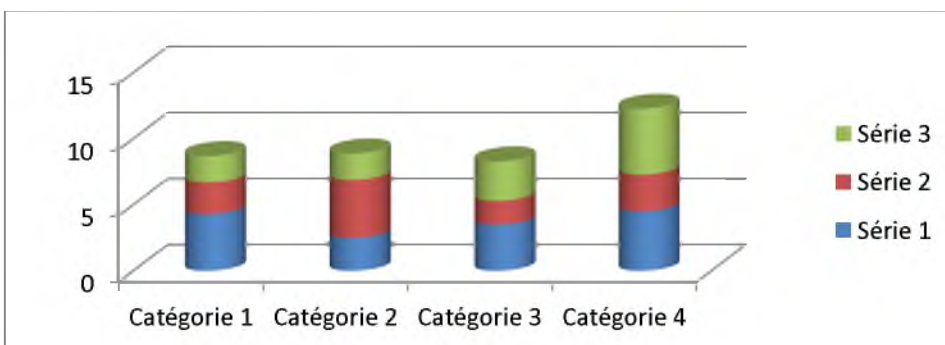
The histogram: consist of a series of column next to each other without any space between them, and each column presents the frequency of a category or subcategory.



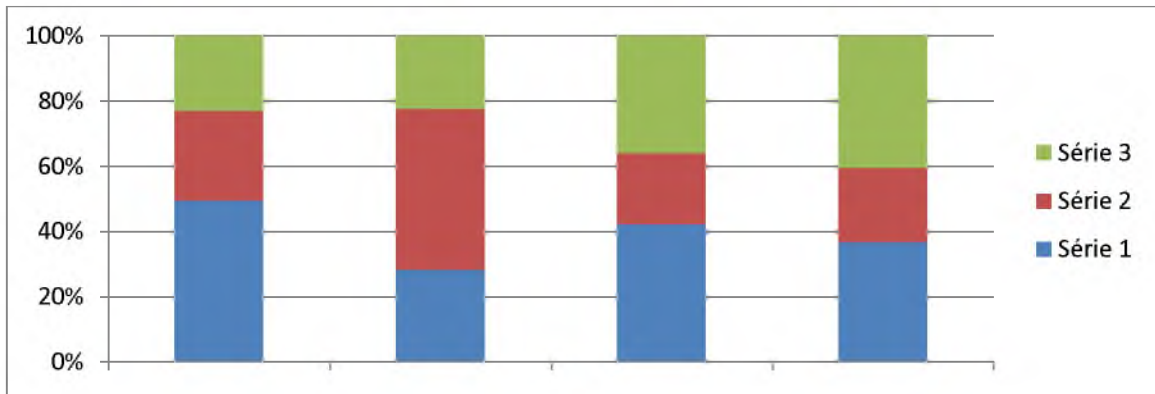
The bar chart: or bar diagram is identical to histogram except that in bar chart the columns are spaced.



The staked bar chart: is similar to bar chart except that in this one each column can show information about two or more variables stacked into each other vertically.

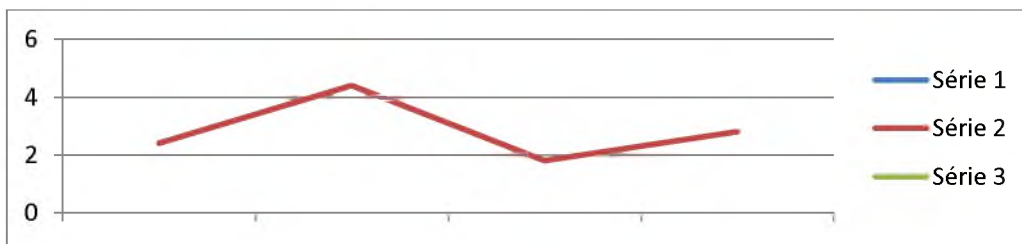


The 100 percent bar chart: is also similar to the stacked bar chart but in this one each bar has a total of 100% and is cut according to the percentage of each subcategory of the variable.

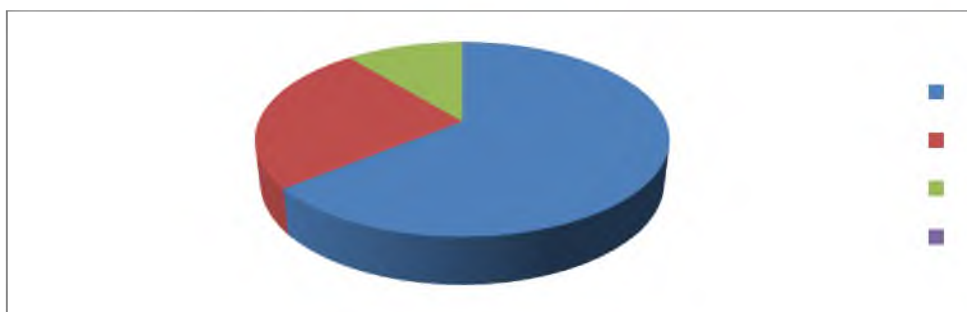


The frequency polygon: is very similar to the histogram; this one is drawn by joining the midpoint of each column or rectangle.

The cumulative frequency polygon: in contrast of the above type, this one requires joining the end point of the intervals because it interprets data in relation to the upper limit of n interval

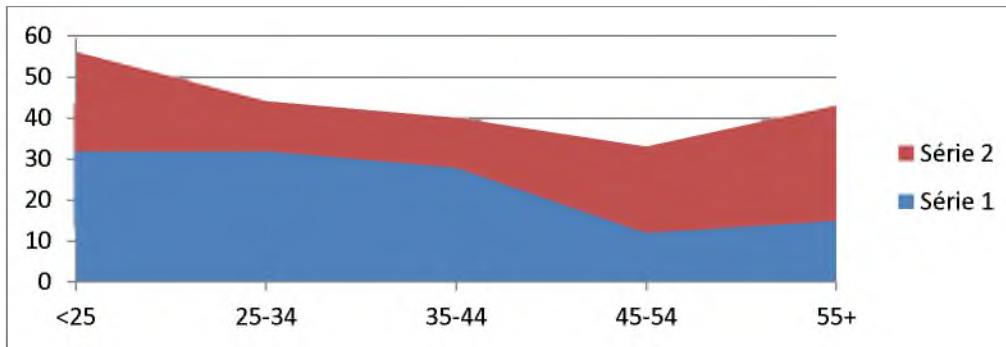


The pie chart: it is another way of presenting data graphically within a circle, the section or the pie is divided into section according to the data of each subcategory.



The area chart: here the data are measured in continuous intervals but each interval or area is shaded to show the total magnitude of the subcategory in relation to the other categories.

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4) Statistical Measures:

The importance of statistics in quantitative studies is great; its first role lies in describing data in a summary form to enhance its understanding and meaning; and gives confidence in the findings. Although statistical measures are extremely effective in presenting the findings in a precise manner, but you can conduct a perfect valid study without it; their use in certain situations is desirable and in other situations is essential. Thus, the use of statistical measures depends on the type of data collected, your knowledge of statistics, and the purpose of communicating the findings. That is, your data may need statistics or not, and you may have an idea about the use of statistics or not and in case you don't it is better to avoid their use, and may wish to present your results in a statistical way or not. It all depends on the situation and the attitudes towards statistical measures.

Training Report

Writing a report is the process of writing and re-writing; therefore, it's important to realize that you don't need to begin by an introduction and write until you get into the conclusion; often the body is written first. Also, you're not expected to produce the perfect report the first time you put pen on paper; expect to have to redraft your report. Your lecturer or teacher will usually provide you with the following information:

- The topic or subject of the report
- The required length and due date
- A clear idea of its purpose and who will read it
- The format headings to be used and their order.

A useful model of report will be provided by the department which determines how you are going to conduct your report

Report Format

The training report will be conducted in one of the educational institutions where the English language is taught including: intermediate, secondary, and university grades. Students are given a list of instructions that they must follow, such as:

The students must:

- behave properly;
- dress appropriately;
- know the timetable of his instructor or supervisor;
- be interested in the lessons and participate in the discussion with the trainer;

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- give a summary of his/her observation and the supervisor's advices;
- by the end he must thank his supervisor for his help and guidance.

The students begin their training report by the timetable of their observation starting from the first sessions and its timing until the last one. In most of the cases all the students are asked to hold no more than eight (8) sessions, six of them are undertaken within observations while the last two sessions are taught by the students themselves.

Classroom Observation: students are first required to make their observation in the sessions and then they give two lessons to the pupils under observation. classroom observation form involves information about: the educational institution, the name of the school, the date of each session, its timing, the unit of the lesson, the target of the unit, the skill involved, aim of the lesson, and the materials used to conduct the lesson by the students, and the activities, etc.

Classroom Observation Form

Form number: 01/06

General Information	
School: Secondary School	Name: Abi Hamed El Ghazali,
Date: January 25 th , 2014	Timing: 09:00 to 10:00
Level: Second Year in Foreign language class	
Unit: Poverty and World Resources	
Unit's Target: pupils are required to learn how to suggest, predict, and give information and write a report	
Skills: Reading, speaking, and writing	
Aim of the lesson: introducing the unit to the pupils	
Materials used: Books and the whiteboard	

Lesson Steps
<p>Step 1: Activity: think it over Intermediate Objectives: to get the pupils interact about the topic Instruction given: what do these pictures represent? What are they used for Which picture represents poverty? Time allotted: 10 minutes</p> <p>Step 2:</p> <p>Step 3: (if there are other steps list them)</p>

The students must give the six tables one after the other in a sequential order as: 01/06; 2/6; 3/6; 4/6; 5/6, 6/6. After the sixth table; the students must give the overall remarks that they took during their observations explaining what happened starting from the first session until the sixth one. After describing his/her observation during the six sessions, he/she moves to describes the lesson that he taught in a specific format:

Description of the First Lesson Taught on 06/04/2014

Time: 09:00 to 10:00

Lesson: Science and Fiction

Class: Foreign languages, second year

Number of pupils: 22 pupils

Requirements of the submission of the lesson: pupils should have scientific and fictional background of the topic in their minds like: fictional movies, scientific words, etc.

Objectives of the lesson: at the end of the lesson; pupils must be able to
.....

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Stages of the activities:

Pupils interaction: explain if the pupils were interactive with you or not.

Did you achieve your goals?

What are the advices given by your supervisor?

The Research Project

What is a project? A project is an in-depth research study of an issue relevant to the field in which you are studying. Researchers are expected to provide something original and new to academic or practical knowledge in your research area.

Aims and objectives of a project

While projects vary in their aims, scope and design, they should be designed so as to allow you to demonstrate your ability to apply the principles of research at a postgraduate level. In reporting on the project, you should show that you can:

- Identify and define a significant issue;
- Collect relevant up-to-date information about the issue,
- Analyze, interpret and discuss the information;
- Draw conclusions and make recommendations relevant to the issue that will contribute to current knowledge.

Some tips on choosing a project

Set yourself real goals: Do not attempt work that would be appropriate for a PhD! Your project may need to be much smaller and more focused than your area of interest. Narrowing down to a researchable question is a key research skill.

Start thinking about your project early: The earlier you begin preparing for the project, the easier it is to complete it within the allotted time.

Structure and Approach

Scientific research must begin with a defined research problem which results in a well designed research project. The project includes the following components:

Title Page: A title page should be included, which should be clear and simple.

Abstract: The abstract is typically a single paragraph. The abstract should be considered as an independent document. The first sentence should clearly state the objective of the paper. The subsequent sentences describe how the investigation was carried out. The final sentences describe the significance of the research and its impact on the general field of study. It involves at least four key terms related the study (Paltridge& Starfiled; 2007 ; p122)..

Introduction: The introduction requires a short review of the literature pertaining to the research topic. The introduction is then best constructed starting with broad topics and slowly focusing on the work. One may start with one or two paragraphs that introduce the reader to the general field of study. The subsequent paragraphs then describe how an aspect of this field could be improved. It involves: thesis statement, research questions, hypotheses, aims of the study, and the sections of the paper. You have to describe the approach that was taken to test the hypothesis and state how the answer of your questions will contribute to the overall field of study.

Literature review: It should include a review of any other studies or projects similar or relevant to yours, and perhaps a review of the literature on the method you have chosen if your project tests a new method of research or analysis.

Methods: This section describes the methods used in your study; it will cover such issues as: the study design, the study population, sampling numbers, sampling method, data collection instruments.

Results: In this section you present the results of your research. This section includes such information as descriptive data dealing with your study population, response rates etc. and results of statistical analysis. Tables, figures and graphs are an excellent means of presenting this sort of information. All tables, figures and graphs, should be numbered throughout the whole paper, and presented with a clear and concise descriptive title and explained in paragraphs (Scott& Usher; 2011 ; p88).

Discussion In this section you interpret your results and discuss their implications, with reference to other published research.

Conclusion: This section summarizes the key results and the conclusions that you can draw from these results. It also needs to reflect what your initial project aims and objectives were.

Recommendations: It is good research practice to make recommendations or to suggest directions for further research or actions as a result of your project findings.

References This is a list of all the references and sources you used in your literature review. This includes books, journal articles, letters, abstracts, conference papers, media articles, and any form of published literature or comment.

Appendices This section may contain copies of any questionnaires or evaluation instruments used, covering letters, participant information, or additional explanations.

Guided Work to Literary Studies

Writing a research paper in literary studies is not an easy task; the most important aspect to bear in mind is that you are writing a *research paper* and not an *essay*. This means that you are arguing a thesis with reference to secondary sources and it is essential that you conduct relevant research and that you integrate your findings into your paper (Paltridge & Starfield; 2007 ; p105). Things to keep in mind:

- Your paper should have a well-defined topic and a precisely formulated argument.
- Your approach should be systematic; i.e. you have to adopt a scientific approach.
- Your argument should remain relevant and clear, consistent and coherent.
- Your secondary material should be discussed critically and documented accurately.
- Writing is a process; you should constantly revise.

First steps

Many students neglect the primary steps of the writing process, but if you give it sufficient attention the actual writing of your paper will be faster and more organized than if you just start writing. The most important thing is to be systematic in your approach (Paltridge & Starfield; 2007 ; p108).

1. **Finding a topic**: perhaps the most difficult part of any research paper is finding an adequate topic, formulating a title and making a coherent argument. Once you have decided on a topic or a title, which in literary studies will most likely involve a certain text, rephrase it as a problem to

guide your research. You should also think about the methodology you intend to apply to your analysis.

- Start by reading your primary text closely;
- Figure out which aspects belong together, find contradictions and correspondences.
- Once you have settled on a topic and perhaps even come up with a title, you need to develop a thesis statement. Your thesis statement must be arguable; you are stating an opinion that will be proven in the course of your paper with the help of sources.
- Draft an introduction (Scott& Usher; 2011 ; p205).

2. Writing an Outline

What you are trying to do when writing an outline is to come up with a systematic classification of the elements of your argument. You need to develop categories and relationships between and within these categories that will give your paper structure. Your outline will derive from your topic and will help guide your research. It is also a preliminary table of contents. Outlines can be structured in a *temporal order* (beginning, climax, end), a *logical order* (a fact and its causes and consequences), or a *rhetorical order* (from the general to the specific, from the specific to the general, from the simple to the complex, etc.). Which structure is best will depend on your specific paper (Paltridge& Starfiled; 2007 ; p125).

Important: Regard your outline as a work in progress, return to it repeatedly to make sure you are still on the right track and to change it when your research or your own thought process requires it.

3. Conducting Research

A good place to start research is the previous explained editions of works. But sometimes these will not be available. Here are some other options:

- ***Encyclopedias, Literary Histories***: More general reference works can offer a general starting point. They are also absolutely necessary for the correct use of critical terminology.

- ***Bibliographies***: Both *current* and *retrospective bibliographies* offer the most systematic and reliable information on secondary sources.

- ***Snowballing***: When you are ready to read your first piece of secondary material, don't forget to look at the works cited where you will often find valuable sources that are very close to your topic.

- ***Internet***: Be aware of internet sources. Although a lot can be found online and some sites qualify as good sources, you should be careful and always double check the source. Most importantly, do not limit yourself to online sources; they will not give you the research overview that you need to write a critical paper. Be careful of exaggerated information, i.e. be selective in the choice of your secondary material. Your criteria should be relevance, don't lose valuable time by reading irrelevant texts or by reading texts that repeat very similar standpoints. Do not be afraid to ignore sources trust your own judgment. When you are searching for secondary material, keep in mind that you also need to be able to access it. So you might want to start with the journals that are available at your institution's libraries and/or online (e-journals, e-books, etc.) (Paltridge & Starfield; 2007 ; p173).

Writing Your Paper

1. ***Taking Notes***: Collect and organize your notes systematically. You might try:

- *Note cards*: Write one thought per note card in a full sentence. Write the source in the upper right hand corner to keep track of your citations. Be very precise in noting whether you are taking down a direct quote or whether you are paraphrasing an idea. Whenever possible, paraphrase ideas and save direct quotations for remarks that are absolutely essential.

* There are three main ways of taking notes: *summarizing*, *paraphrasing*, and *quoting*. Always think about the appropriate method for the task at hand. Be sure to be precise in your note taking and to document your sources accurately! Don't take too many notes.

2. Writing the Paper: If you spent a good amount of time on the preliminary steps, then the actual writing of the research paper will turn out to be the quickest and least demanding part (Paltridge & Starfield; 2007 ; p148).

General aspects to consider:

Content

- Beware of plagiarism;
- Your argument should be supported by quotations
- Your introduction should not only describe your topic and its importance, it can include a thesis statement and indicate the method you will be applying.

Style

- Present your ideas precisely and effectively in the formal style appropriate for a research paper (Scott & Usher; 2011 ; p86).

Works Cited/Bibliography

1. The works cited list at the end of the research paper gives a detailed description of all the secondary sources you have consulted. Note that the works cited section should give a complete list of the works referred to in the text.

2. Alphabetize entries in the list of works cited by the author's last name; this helps your reader to find full publication information of works referred to in the text.

3. Differentiate between a works cited list and a bibliography. Whereas the former references only those sources referred to in your paper, the latter gives additional relevant sources.

4. You should include the following information about each source:

- Author's name, title of the book, name of the editor, translator, edition used, numbers of the volumes used, place of publication, name of the publisher, and date of publication, page numbers (if it is an essay or a chapter).

* The author's name appears first. The title of the book appears in italics. Subtitles

follow after a colon. The year of original publication, the edition follows the title. Place of publication is followed by a colon, then the publisher and date of publication are separated by a comma (Scott & Usher; 2011 ; p25).

Quotations

1. Use quotations selectively to support or illustrate your statements. They clarify your acceptance or rejection of another critic's point of view. Be aware of the fact that over quotation may distort the clarity and coherence of your own argument.

2. Incorporate your quotations into the text and the argument, i.e. always formulate an interpretation of the quotations you have selected.
3. Each quotation should retain the precise words, phrases, orthography, and interior punctuation of the source. All additions to the quoted text should appear in square brackets. Alterations of the original must be pointed out. Mark ellipses by three spaced periods in the middle of a sentence and four at the end.
5. All quotes should be clearly indicated: short quotations appear in the body of the text with double quotation marks and are usually preceded by a comma or a colon. Quotations that are longer than three lines and verses should be set off from the text to the middle of the page without quotation marks.
6. Provide citations for all your paraphrases, summaries and quotations.

Footnotes

In certain cases you may use footnotes for explanations or remarks of related interest to a point in your discussion, which is important enough not to be omitted from your text entirely but which would distort the overall coherence of your own line of argument. However: Never use footnotes for information that can be given in the main text (Paltridge & Starfield; 2007 ; p189).

Conclusion

All what have been presented in this handbook are practical lectures of reserach methodology addressed mainly to first, second, and third year student of English in addition to second year Master students of didactics and Litterature and Civilization. The lectures given in this handbook do not limit the field of research methodology; but they are general and most known guidlines that intend to help the reserachers in their investigations. Those reserachers need to recognize what is meant by undertaking a research which means discovering and presenting new facts and knowledge rather than transporting existing data into a new research.

This handbook was initiated by a detailed description of the term research referring to its steps, forms, objectives, different types, approaches, characteristics, and techniques. It also clarified the distinction between research methods and research methodology ; and prsented the main concepts and paradigms of the research. This handbook provided the reserachers with detailed lectures which involved the steps of organizing and preparing a reserach paper. It started by explaining the way of formulating the research problem. It showed the researchers all the various methods of collecting data and how to analyze these pieces of data and how to present them either qualitatively or quantitatively ; and the techniques of selecting the samples. It also guided them to how to write a concise introduction including in it the statement of the problem, reserach questions and hypotheses.

The handbook focused on plagiarism by prsenting its different types and the way how to avoid it through reformulating the borrowed ideas using paraphrasing, summarizing, and quoting ; and at the top of all these by citing the sources. The different styles of citation, MLA, APA, CMS, and CSE, were also central in this handbook in which the researcher is required to adopt

one of them according to the type of his research. Writing about the literature review was also dealt with in this handbook. The latter dedicated a part of it to give peices of advice to the researchers of how to choose a topic and how to choose and work with supervisor by clarifying both their duties and roles in addition to the role of the tutors. Therefore, the research conducted after deep and planning and careful attention to ensure that the final project is well structured (benketaf ; 2024 ; p09).

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