Ministry of Higher Education and Scientific Research
Mouloud MAMMERI University of Tizi-Ouzou
Faculty of Letters and Languages
Department of English

Master One
Foreign Language Didactics

A course in

Research Methodology

Semesters 1 and 2

Teaching Unit: Methodology

Course designed by
Dr Kamila AMMOUR

Research Methodology in Social Sciences

Description of the Course

The course introduces Master students to the process of conceptualising, designing and conducting academic research in social sciences. It is organised around eleven themes related to principles of scientific research in the field of applied language studies. After learning about fundamentals of scientific research, the students will consider types of research methods and discuss their appropriateness to various issues. Additionally, the students will gain knowledge about how to compile and analyse data by using the right research techniques and tools. Because ethical considerations are of paramount importance in academic research, a theme devoted to ethical issues is suggested. The course ends with the design of research proposals. To put it in a nutshell, students will learn to think and act like researchers.

Objectives

By the end of the course, students will be able to

- understand what scientific research is;
- identify the overall process of designing a research study from its inception to its report;
- distinguish among various research designs;
- determine dependent and independent variables involved in a study;
- select an appropriate research design according to the purpose of the research;
- formulate a good research question and suggest appropriate hypotheses;
- design a research project by following the required steps;
- collect data appropriate to the raised issue in a controlled manner;
- systematically analyse data so as to achieve valid results;
- discuss ethical issues in theoretical and empirical studies; and
- think about and write a credible research proposal.

Course Contents

1. Fundamentals of Scientific Research
2. Philosophical Underpinnings of Research : Positivism and Interpretivism
3. Quantitative & Qualitative Research
4. Mixed-Methods Research
5. Planning a Research Study
6. Types of Research Designs
    - 6.1 Case study Research
    - 6.2 Survey Research
    - 6.3 Experimental Research
    - 6.4 Interpretive Research
7. Data Collection Instruments
    - 7.1 Questionnaires
    - 7.2 Interviews
    - 7.3 Classroom Observation
    - 7.4 Documents
8. Data Analysis Instruments
    - 8.1 Qualitative Data Analysis
        - 8.1.1Content Analysis
        - 8.1.2 Discourse Analysis
        - 8.1.3 Conversation Analysis
    - 8.2 Quantitative Data Analysis
        - 8.2.1 Descriptive & Inferential Statistics
        - 8.2.2 SPSS
9. Sampling
10. Ethical Issues in Research
11. Research Proposal

References

Appendices

- Appendix A: Answer Key
- Appendix B: Examination Templates

Recommended References

Biggam, J. (2008). *Succeeding with your master's dissertation a step-by-step handbook.* Berkshire, England: Open University Press.

Brown, J.D. & Rodgers, T.S. (2002). *Doing second language research*. Oxford: Oxford University Press.

Brown, J.D. (1998). *Understanding research in second language learning.* Cambridge: Cambridge University Press.

Cohen, L., Manion, L., & Morrison, K. (2005) *Research Methods in Education* (5th ed.). London,UK: Routledge Falmer.

Dencombes, M. (2010). *The good research guide: for a small-scale social research projects* (4th ed.). Berkshire, England: Open University Press.

Dornyei, Z. (2007). *Research Methods in Applied Linguistics*. Oxford: Oxford University Press.

Kumar, R. (2011). *Research methodology: a step-by-step guide for beginners* (3rd ed.). London, UK: Sage Publications.

Marczyk, G., DeMatteo, D., & Festinger, D. (Eds.) (2005). *Essentials of research design and methodology.* Hoboken, NJ: John Wiley & Sons.

Fundamentals of Scientific Research

Objectives*:* By the end of this theme, the students will learn about

- principles of scientific research;
- how to implement the scientific method in social sciences.

1. What is Research?

Research in a scientific sense is the organised, systematic search for answers to the questions we ask. In short research is a disciplined inquiry. Research is not done for its own sake, but to generate knowledge and to further our understanding.

There are two basic ways of finding answers to questions

- By looking at what other people have said: **secondary research**

- By conducting one‘s own data-based investigation (empirical) which involves collecting some sort of information and then drawing some conclusion from it: **primary research**

In this course, we are concerned with the second type, particularly as it is applied to the study of languages. There are key-principles of research methodology that we need to bear in mind or else we risk our results becoming irreparably flawed.

2. What is Science?

Etymologically, the word ―science‖ is derived from the Latin word *scientia* meaning knowledge. **Science** refers to a systematic and organized body of knowledge in any area of inquiry that is acquired using ―the scientific method‖.

In simple terms, *science* can be defined as a methodological and systematic approach to the acquisition of new knowledge. This definition of science highlights some of the key differences between how scientists and non-scientists go about acquiring new knowledge. Scientists attempt to gain new knowledge by making careful observations and using systematic, controlled, and methodical approaches. By doing so, scientists are able to draw valid and reliable conclusions about what they are studying. In addition, scientific knowledge

is not based on the opinions, feelings, or intuition of the scientist. Instead, scientific knowledge is based on objective data that were reliably obtained in the context of a carefully designed research study. In short, scientific knowledge is based on the accumulation of empirical evidence.

Science can be grouped into two broad categories: natural science and social science. Natural science is the science of naturally occurring objects or phenomena. In contrast, social science is the science of people or collections of people, such as groups, firms, societies, or economies, and their individual or collective behaviours. Social sciences can be classified into disciplines such as psychology (the science of human behaviours), sociology (the science of social groups), and economics (the science of firms, markets, and economies).

3. The Scientific Method

The defining characteristic of scientific research is the scientific method. First described by the English philosopher and scientist Roger Bacon in the 13th century, it is still generally agreed that the scientific method is the basis for all scientific investigation.

The scientific method is best thought of as an approach to the acquisition of new knowledge, and this approach effectively distinguishes science from non science. To be clear, the scientific method is not actually a single method, but rather an overarching perspective on how scientific investigations should proceed. It is a set of research principles and methods that help researchers obtain valid results from their research studies. Because the scientific method deals with the general approach to research rather than the content of specific research studies, it is used by researchers in all different scientific disciplines.

Researchers generally agree that the scientific method is composed of the following key elements: observations, research questions, hypotheses, experiments, analysis, and conclusions.

3.1 Observations

An important component in any scientific investigation is observation. Observations of the world around us often give rise to the questions that are addressed through scientific research. In the context of social sciences, observation refers to the process providing operational definition. Researchers define key concepts and terms in the context of their research studies by using operational definitions. By using operational definitions, researchers ensure that everyone is talking about the same phenomenon. For example, if a researcher wants to study the effects of classroom management on learners‘ achievement, it would be necessary for the researcher to define what ―classroom management‖ is. By doing so, the researcher makes sure that everyone is referring to the same thing. Clearly, the definition of ―classroom management‖ can differ from one study to another, so it is crucial that the researcher define ―classroom management‖ in a precise manner in the context of their study.

3.2 Questions

After getting a research idea, perhaps from making observations of the world around us, the next step in the research process involves translating that research idea into an answerable question. The term ―answerable‖ is particularly important in this respect, and it should not be overlooked. It is important to formulate a research question that can be answered through available scientific methods and procedures. It would obviously be a frustrating and ultimately unrewarding endeavour to attempt to answer an unanswerable research question through scientific investigation.

3.3 Hypotheses

The next step in the scientific method is coming up with a set of hypotheses, which is simply. A hypothesis is often described as an educated and testable guess about the answer to your research question. Hypotheses can take various forms, depending on the question being asked and the type of study being conducted.

A key feature of all hypotheses is that each must make a prediction. Remember that hypotheses are the researcher‘s attempt to explain the phenomenon being studied, and that explanation should involve a prediction about the variables being studied. These predictions are then tested by gathering and analyzing data, and the hypotheses can either be supported or refuted on the basis of the data.

3.4 Experiments

After articulating the hypotheses, the next step involves actually conducting the experiment or the research study. It involves the process of compiling the needed data.

3.5. Analysis

After conducting the study and gathering the data, the next step involves analyzing the data, which generally calls for the use of various techniques. The type of data analysis techniques used by a researcher depends on the design of the study, the type of data being gathered, and the questions being asked.

3.6 Conclusions

At the end of the study and after having discussed the findings of the empirical study against the previous research, the researcher attempts to bring answers to the different questions asked at the onset of the study. They do so by accepting or refuting the hypotheses. The researcher may point out some of the limitations of the study and suggest new perspectives for further research.

References

Brown, J.D. (1998). *Understanding research in second language learning.* Cambridge: Cambridge University Press.

Kalof, L., Dan, A., & Dietz, T. (2008). *Essentials of Social Research*. London, UK: Open University Press.

Marczyk, G., DeMatteo, D., & Festinger, D. (Eds.) (2005). *Essentials of research design and methodology.* Hoboken, NJ: John Wiley & Sons.

May, T. (2001). *Social research issues, methods and process* (3rd ed.). Buckingham · Philadelphia: Open University Press

Practice

Consider the following abstract of a research article. Depict the various steps of the scientific method.

Developing Elementary EFL Learners' Procedural Knowledge and Strategic Awareness in Reading Classes during the Covid-19 Pandemic: Algerian Teachers' Challenges

Abstract

The Covid-19 pandemic has affected educational systems worldwide, leading some scholars to scrutinise the consequences of lockdown and school closure on learners' learning habits and teachers' teaching practices. In this regard, this paper aims to explore the teachers' challenges while implementing a reading strategy-based instruction for beginners during the Covid-19 pandemic, taking the Algerian middle schools as a case in point. It highlights the difficulties to achieving quality in developing learners' procedural knowledge and strategic awareness in EFL reading classes. The leading approach to the issue is the interactive approach. To attain the objective of the research, the qualitative method was adopted. Classroom observation and structured interviews were used to collect data. The population targeted was composed of 20 teachers from 16 middle schools in Tizi-Ouzou. The collected data were subjected to qualitative content analysis. The results of the study reveal that most teachers are aware of the importance of reading strategy-based instruction. However, they do not teach them systematically or consistently. Indeed, lack of targeted teacher training, time constraints, and disregard of metacognitive instruction are likely to be obstacles to the efficient implementation of reading strategy-instruction. Furthermore, the Covid-19 pandemic has thrown up several psychological and cognitive learners' difficulties, including decreased motivation and lack of cognitive focus, making the teaching process more challenging. The results imply a need for a revision of teachers' professional development programs and a re- consideration of the elementary EFL courses.

Selected from

Ammour, K. (2021). Developing Elementary EFL Learners' Procedural Knowledge and Strategic Awareness in Reading Classes during the Covid-19 Pandemic: Algerian Teachers' Challenges. *Arab World English Journal (AWEJ) Special Issue on Covid 19 Challenges* (1) 127-135. DOI: https://dx.doi.org/10.24093/awej/covid.9

Philosophical Underpinnings of Research: Positivism & Interpretivism

Objectives: By the end of this theme, the students will learn about

- history of the scientific thought;
- the various philosophical approaches to scientific research;
- Positivism & Interpretivism as approaches to research in social sciences.

Introduction

In order to get a better understanding of scientific thought and the various philosophical approaches to research, it is of paramount importance to start with definition of two fundamental concepts: ontology and epistemology.

- ***Ontology*** is the nature of reality. It is concerned with identifying the overall nature of existence of a particular phenomenon. When we seek answers (reality) to our research questions, we are referring to a particular type of knowledge that exists external to the researcher. It is just the way things are.
- ***Epistemology*** is the relationship between the researcher and the reality or how this reality is captured or known. It is about how we go about uncovering this knowledge (that is external to the researcher) and learn about reality. So it is concerned with questions such as how do we know what is true and how do we distinguish true from falls? Therefore, epistemology is internal to the researcher. It is how they see the world around them. Epistemology is concerned with whether or how we can have knowledge of reality: questions that have concerned philosophers since, at least, the Ancient Greeks.

1. History of Scientific Thought

1.1 Early Times

The Greeks

The Greeks were the first scholars to develop what we recognize as the scientific method. The Ancient Greek philosophers did not believe in empiricism, and saw measurements, such as

geometry, as the domain of craftsmen and artisans. Plato and other philosophers believed that all knowledge could be obtained through pure reasoning, and that there was no need to actually go out and measure anything.

The Muslims

The early Islamic ages were a golden age for knowledge, and the history of the scientific method must pay a great deal of respect to some of the brilliant Muslim philosophers of Baghdad and Al-Andalus. The first, and possibly greatest Islamic scholar, was Ibn al- Haytham, best known for his wonderful work on light and vision, called 'The Book of Optics.' He developed a scientific method very similar to our own:

1. State an explicit problem, based upon observation and experimentation.
2. Test or criticize a hypothesis through experimentation.
3. Interpret the data and come to a conclusion, ideally using mathematics.
4. Publish the findings

1.2 The Middle Ages & the Renaissance: Empiricism Vs Rationalism

The renaissance was another turning point for the scientific method, where European scholars took the knowledge of the Greeks and the Muslims, and added to it.

- **Roger Bacon** an English philosopher, scientist and scholar who called for an end to blind acceptance of widely accepted writings. In particular, he targeted Aristotle's ideas, which, while valuable, were often accepted as fact even when evidence did not support them. He was one of the earliest European scholars to refine the scientific method. He developed the idea of making observations, hypothesizing and then experimenting to test the hypothesis.
- **Francis Bacon** (1561-1626), a successful lawyer and influential philosopher who did much to reform scientific thinking. In his "Instauratio Magna," Bacon proposed a new approach to scientific inquiry, which he published in 1621 as the "Novum Organum Scientiarum." This new approach advocated inductive reasoning as the foundation of scientific thinking. He

believed that all scientific discoveries should proceed through a process of observation, experimentation, analysis and inductive reasoning, to apply the findings to the universe as a whole.

- **Descartes,** the great philosopher and mathematician who, by contrast, firmly believed that the universe was like a huge machine. Therefore, if you understood the basic laws of the universe, you could deduce how anything will act.

1.3 The Twentieth Century

The scientific method, as developed by Bacon and Newton, continued to be the main driver of scientific discovery for three centuries. However, their ideas were based at a time where most scientists were polymaths, working in many scientific fields and also understanding philosophy and theology.

Science gradually began to move away from those areas and developed into a separate area of study. In addition, the increasing complexity of science and the increase in both breadth and depth made it impossible for a scholar to work across disciplines.

As science began to split into chemistry, physics, biology and the proto-scientific psychology, the history of the scientific method became much more complex.

Physicists could remain true to the Baconian inductive methods (positivism), but psychologists began to find this increasingly difficult when dealing with the extreme variability of the human mind and man-made constructs (Interpetivism). As a result, the Twentieth Century saw a huge change in the scientific thought.

2. Positivism

The positivist paradigm of exploring social reality is based on the philosophical ideas of the French Philosopher August Comte (1798- 1857). According to him, observation and reason are the best means of understanding human behaviour; true knowledge is based on experience of senses and can be obtained by observation and experiment.

At the ontological level, positivists assume that the reality is objectively given and is measurable using properties which are independent of the researcher and his or her instruments; in other words, knowledge is objective and quantifiable. Positivistic thinkers adopt scientific methods and systematize the knowledge generation process with the help of quantification to enhance precision in the description of parameters and the relationship among them.

The positivist position maintains that scientific knowledge consists of facts while its ontology considers the reality as independent of social construction. If the research study consists of a stable and unchanging reality, then the researcher can adopt an _objectivist' perspective: a realist ontology - a belief in an objective, real world - and detached epistemological stance based on a belief that people's perceptions and statements are either true or false, right or wrong, a belief based on a view of knowledge as hard, real and acquirable; they can employ methodology that relies on control and manipulation of reality.

Although positivistic paradigm continued to influence educational research for a long time in the second-half of the twentieth century, its dominance was challenged by critics from two alternative traditions – interpretive constructionism and critical postmodernism— due to its lack of subjectivity in interpreting social reality. According to its critics, objectivity needs to be replaced by subjectivity in the process of scientific inquiry.

3. Interpretivism

Interpretive researchers believe that reality consists of people's subjective experiences of the external world; thus, they may adopt an inter-subjective epistemology and the **ontological** belief that reality is socially constructed. Interpretivists are anti-foundationalists, who believe there is no single correct route or particular method to knowledge. They attempt to derive their constructs from the field by an in-depth examination of the phenomenon of interest. They assume that knowledge and meaning are acts of interpretation, hence there is no

objective knowledge which is independent of humans reasoning. In the interpretive tradition there are no _correct‘ or _incorrect‘ theories. Instead, they should be judged according to how _interesting‘ they are to the researcher as well as those involved in the same areas.

Interpretive paradigm is underpinned by observation and interpretation, thus to observe is to collect information about events, while to interpret is to make meaning of that information by drawing inferences or by judging the match between the information and some abstract pattern. It stresses the need to put analysis in context. The interpretive paradigm is concerned with understanding the world as it is from subjective experiences of individuals. Meaning (versus measurement) oriented methodologies are used, such as interviewing or participant observation, that rely on a subjective relationship between the researcher and subjects. The aim is to explain the subjective reasons and meanings that lie behind social action. The interest of interpretivists is not the generation of a new theory, but to judge or evaluate, and refine interpretive theories.

References

Brown, J.D. & Rodgers, T.S. (2002). *Doing second language research*. Oxford: Oxford University Press.

Kalof, L., Dan, A., & Dietz, T. (2008). *Essentials of Social Research*. London, UK: Open University Press.

May, T. (2001). *Social research issues, methods and process (3rd ed.).* Buckingham · Philadelphia: Open University Press

Shuttleworth, M. (Aug 18, 2009). History of the Scientific Method. Retrieved from Explorable.com: https://explorable.com/history-of-the-scientific-method

Practice

Read the following text, and then do the required task

A researcher with a *positivist* view of the world is someone who holds that reality is objective and independent of the observer and so can be measured and predicted (Orlikowski and Baroudi 1991; Remenyi *et al.* 1998). Measuring the temperature at which different types of metals melt could fall into the category of positivist research (since the melting metal is not influenced by human observation). What the positivist researcher is really saying is that his

type of research – positivist research – is not influenced by the unpredictable behaviour of human beings and that, as a result, his findings are more reliable (e.g. such-and-such a metal melts at such-and-such a temperature, full stop). Positivist research is common in the world of science (mathematics, physics, chemistry, etc.) and less prevalent in the arts-based research world (e.g. sociology, history, history of art, etc.), where the latter normally involves, and is influenced by, human participation and observation.

The emphasis on quantifiable data is the reason that positivist research is equated with quantitative research, but the two concepts, although similar, are not exactly the same (e.g. providing students with questionnaires to complete, with a view to obtaining quantifiable data, is an example of quantitative research, but is not an example of *positivist* research, because the questionnaire responses are dependent on human participation, and therefore human influence).

Interpretative researchers, on the other hand, hold to a very different view of the world than positivist researchers. Interpretative researchers believe that there are many, equally valid, interpretations of reality, and that, further, these interpretations are dependent on when they are made and the context in which they are made, i.e. they are *time* and *context* dependent.

A student who accepts _(…) that multiple realities exist that are time and context dependent . . . will choose to carry out [their] study using qualitative methods so that they can gain an understanding of the constructs held by people in that context‘ (Mertens 1998: 161). If your research concentrated on, say, interviewing your fellow students on their views of their dissertation tutors, then you would be engaging in interpretative research: students would present a variety of views, some praising their supervisors, others offering criticism, with a range of views expressed on why students like/dislike their supervisor (a student who previously applauded his supervisor might change his mind if he failed his dissertation and vice versa for a student who disliked her supervisor but changed her

mind when she gained a high mark!). One colleague carried out research recently where he interviewed students as they progressed from first year to third year, capturing their views on how they were coping with group-based coursework. He was adopting an interpretative philosophy to his research study in that he was interested in his students‘ interpretations of their groupwork experiences, which he also recognized might alter as they advanced through their studies (i.e. time and context dependent).

For interpretative researchers, human participation and observation, and the context and time these occur, are fundamental to their research. The emphasis on human interpretations of events leads interpretative research to be identified, correctly, with qualitative research.

One could argue that the positivist researcher‘s view of his research – that it is untainted by human influence and so more reliable – is erroneous and just wishful thinking. In the first place, positivist researchers are often wrong. Scientists once thought that the world was flat and the Sun rotated around the Earth. Airplanes continue to crash. Missiles go astray. Economic forecasting, based on quantitative modelling, is often wrong; and so on. There is also the argument that even in the world of positivist research, human influence cannot be avoided. Once measurements have been taken, and results produced, the results themselves require human interpretation. Scientists often disagree about how to interpret the same research data (e.g. global warming); and they have been known to interpret research data that best suits their own career interests, or the interests of their political or financial masters. For

instance Dinwoodie (2007: 6) reports that the Director of the Information Services Division (ISD), a body that produces statistical data on health issues in Scotland, laments that:
The independent, neutral and honest interpretation of statistics is often lost in the middle between opposing interpretation poles . . . On the one hand the media and political opposition concentrate on negative themes and interpretation. The
Scottish Executive [the ruling political body] *and ministers naturally press for any positives to be highlighted . . . We find it difficult to steer a neutral course when publishing statistics, especially so because most of the statistical collections . . . have the Executive* [the ruling political body] *as the main sponsor.*
That is not to say that interpretative research is any more reliable, or somehow _better' than positivist research. Both types are useful, and have their place; and both types are fallible, because humans are fallible.

Text selected from

Biggam, J. (2008). *Succeeding with your master''s dissertation a step-by-step handbook.* Berkshire, England: Open University Press.

The task: depict the different characteristics of positivism and interpetivism, and then fill in the following table.

	Positivism	Interpetivism
Goal	……..	……
Ontology	……..	……
Epistemology	…….	…….
Research Approach	…….	…….
Research Design	……..	……..
Generalisations	……..	……

Quantitative and Qualitative Research

Objectives: By the end of this theme, the students will learn about

- the different characteristics of qualitative or quantitative research;
- how to make a distinction between a qualitative and a quantitative study.

Introduction

There are two broad categories of research with which researchers must be familiar: quantitative & qualitative research. The distinction signifies more than merely using figures or non-quantitative data; instead, the dichotomy refers to several things:

- The general ideological orientation underlying the study
- Te method of data collection
- Te nature of the collected data
- The method of data analysis used to process the data.

1. Quantitative Research

1.1 Definition: it involves studies that make use of statistical analysis to obtain their findings. At the heart of the quantitative method is the scientific method borrowed from natural sciences in the nineteenth century. It offers tools and procedures to explore questions in an objective manner, trying to minimize the influence of any researcher bias or prejudice resulting in accurate and valid scientific theories and laws. Knowledge is perceived in terms of numerical values and statistics that can be empirically measured.

Statistics is the most widely used branch of mathematics in quantitative research. Quantitative research using statistical methods often begins with the collection of data based on a theory or hypothesis or experiment followed by the application of descriptive or inferential statistical methods.

1.2 Historical Overview

Quantitative research was inspired by the scientific method used in natural sciences in the 19th C. Indeed, the scientific method offered a tool to explore questions in an objective manner. It is closely associated with numerical values.

The first half of the twentieth century saw major developments both in the scientific method and statistics, leading to the increased use of quantitative methodology across the whole range of social disciplines.

The middle of the twentieth century became dominated by quantitative methodology in the social sciences. This hegemony only started to change in the 1970s as a result of the challenges of qualitative research.

In applied linguistics, the period between 1970 & 1985 saw a significant increase of quantitative research articles.

1.3 Main Features

- An important feature of quantitative research, as used in social sciences, is the use of numbers. To be meaningful, each number, unlike natural sciences, should be contextualized or related to a specific category.
- The language of statistics has become part of the quantitative research jargon. The links between different variables are stated in tabular and statistical forms.
- Numerical data: durations, scores, counts of incidents, ratings or scales.
- A priori categorisation: specifying the categories and the values should be done prior to the study to avoid ambiguities.
- Quantitative researchers are less interested in individuals than in common features of groups of people (the average).
- Standardised procedures to assess objective reality: standardised procedures will ensure that the results will remain stable across investigators and subjects.

- Quest for generalisations and universal laws.

2. Qualitative Research

2.1 Definition

Qualitative research involves studies that do not attempt to quantify their results through statistical summary or analysis. As used in social sciences, qualitative method involves data collection procedures that result in open-ended, non-numerical data analysed through non-statistical methods. In fact, qualitative research was perceived to represent a flexible and highly context-sensitive micro-perspective of the everyday realities of the world. It is not based on statistical measurements since it deals with meanings. It is mainly concerned with different interpretations of subjective meanings, and the ways in which reality is constructed. The focus is put on using theoretical lenses to study research problems inquiring into the meaning individuals or groups ascribe to a social or human problem. It offers a complex and detailed understandings of social issues.

2.2 Historical Overview

Grounded in interpretivism, qualitative research developed in the late nineteenth and the beginning of the twentieth century in a variety of disciplines such as cultural anthropology, interpretive sociologies, and cultural studies.

Qualitative methods were introduced into sociology at the end of the first decade of the twentieth century through the work of the Chicago School for the study of human group life.

After World War II, quantitative research methodology produced substantial advances and qualitative research was relegated to preliminary, exploratory work. The first text tat tried to define qualitative methodology appeared in 1967 *Strategies for Qualitative Research* written by Glaser & Strauss. The authors were concerned wit the systematisation of the collection, coding and analysis of qualitative data for the generation of theory.

In applied linguistics, there has been an increasing visibility and acceptance of qualitative research since the mid-1990s. This is related to the growing recognition that almost every aspect of language acquisition and use is determined or significantly shaped by social and cultural factors and qualitative research is ideal for providing insights into such contextual conditions and influences.

2.3 Main Features

Qualitative research is difficult to define clearly since it has no theory that is distinctly its own. Researchers are doing whatever they can to find out what they want to know. However, there exists a core set of features that would universally characterise a properly conducted qualitative study.

- Qualitative research is mainly characterized by the collection of data in natural settings wherein the participants‘ perceptions and views play a vital role in the study.
- It situates research in its cultural context. Several data sources are used in qualitative studies.
- The role of the researcher is to organize the gathered data into categories. The researcher makes an interpretation of all what s/he experiences in the study on the basis of their background and prior understandings. This is what makes of the qualitative studies more subjective than the quantitative ones.
- Qualitative research fits well the critical studies to hear silenced voices and marginalized groups.
- Flexibility in research design: the study is kept open and fluid so that it can respond in a flexible way to new details or openings that may emerge during the process of investigation.
- Inside meaning: Qualitative research is concerned with subjective opinions, experiences and feelings of individuals.

- Interpretive analysis: the research outcome is the product of the researcher‘s subjective interpretation of data.
- The nature of qualitative data: record interviews, field notes, diary entries, documents images, videos etc. during data processing, most data are transformed into a textual form.

References

Creswell, J. W. (2007). *Qualitative inquiry& research design Choosing among five approaches* (2nd ed.). London, UK: Sage Publications.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.

Dornyei, Z. (2007). *Research methods in applied linguistics*. London, UK : Oxford University Press.

Schwartz-Shea, P., & Yanow, D. (2012). *Interpretive research design: concepts and processes.* New York: Routledge

Practice

Read the following text, and then do the required task

Quantitative Research

Research involving the collection of data in numerical form for quantitative analysis. The numerical data can be durations, scores, counts of incidents, ratings, or scales. Quantitative data can be collected in either controlled or naturalistic environments, in laboratories or field studies, from special populations or from samples of the general population. The defining factor is that numbers result from the process, whether the initial data collection produced numerical values, or whether non-numerical values were subsequently converted to numbers as part of the analysis process, as in content analysis. Quantitative research tends to be associated with the realist epistemology, the approach to knowledge that maintains that the real world exists, is directly knowable (although not necessarily at this moment) and that the real world causes our experiences. That is, real things exist, and these can be measured, and have numerical values assigned as an outcome measure, and these values are meaningful. These values can only be meaningful if researchers accept some of the criteria associated with the positivist standpoint. Gaining numerical materials facilitates the measurement of variables and also allows statistical tests to be undertaken. For example, descriptive statistics can be used to illustrate and summarize findings, detect relationships between variables, as in correlation coefficient values, or inferential statistical analysis can be undertaken to establish the effects of different interventions, as in analysis of variance, analysis of covariance and multivariate analysis of variance (Johnson and Wichern, 1998). Interactions between variables can also be investigated within experimental designs and also as part of the analysis of data from surveys or secondary sources (Pilcher, 1990). Changes over time can be more easily tracked using quantitative methods, as measures of the same properties

can be taken at several points during an intervention. For example, if a community project is intended to engage young people, comparing those inclined towards antisocial behaviour with those who are not, measures of shoplifting, juvenile arrests, nuisance calls to the civil services, such as fire and ambulance, can be used across the time of the intervention in order to establish the efficacy of the project. It would be very difficult to establish actual effects without numerical data.

Qualitative Research

Research that investigates aspects of social life which are not amenable to quantitative measurement. Associated with a variety of theoretical perspectives, qualitative research uses a range of methods to focus on the meanings and interpretation of social phenomena and social processes in the particular contexts in which they occur.

Qualitative research is not a single set of theoretical principles, a single research strategy or a single method (Silverman, 1993). It developed in the nineteenth and twentieth centuries, across a range of disciplines, on varied and sometimes conflicting philosophical and theoretical bases, including cultural anthropology, interpretive sociologies (such as symbolic interactionism), phenomenology and, more recently, hermeneutics, critical theory, feminism, post-colonial theory, cultural studies, post-structuralism and postmodernism. These diverse approaches inevitably give rise to substantial differences and disagreements about the nature of qualitative research, the role of the researcher, the use of various methods and the analysis of data.

However, qualitative research is often based upon interpretivism, constructivism and inductivism. It is concerned to explore the subjective meanings through which people interpret the world, the different ways in which reality is constructed (through language, images and cultural artifacts) in particular contexts. Social events and phenomena are understood from the perspective of the actors themselves, avoiding the imposition of the researcher‘s own preconceptions and definitions.

There is also often a concern with the exploration of change and flux in social relationships in context and over time.

The methods used in qualitative research, often in combination, are those which are open-ended (to explore participants‘ interpretations) and which allow the collection of detailed information in a relatively close setting. These methods include depth interviewing, ethnography and participant observation, case studies, life histories, discourse analysis and conversational analysis. It is in the nature of qualitative research, with its emphasis on depth and detail of understanding and interpretation, that it is often small-scale or micro-level.

Text selected from

Jupp, V. (Ed.). (2006). *The Sage Dictionary of Social Research Methods*. London: Sage Publications

The task: account for the differences/similarities lying between Qualitative and Quantitative research. Fill-in the following table

	Quantitative Research	***Qualitative Research***
Philosophy	……..	…….
Data	……..	…….
Analysis	……..	…….
Results	……	…….
Types of studies	……..	…….
Researcher‘s role	……	…….

Mixed-Methods Research

Objectives: By the end of this theme, the students will learn about

- the characteristics of mixed-methods research;
- when and where a mixed-methods approach could be applied;
- the procedure to follow to conduct a mixed-methods study.

Introduction

Quantitative and qualitative paradigms represent two different approaches to research, but they are not necessarily exclusive. Their principled combination has led to an emerging third research approach namely mixed-methods research.

1. Definition

Mixed-Methods Research draws upon both quantitative and qualitative methodological approaches to answer a particular research question. At its simplest, a mixed-method strategy involves different combinations of qualitative and quantitative methodologies in order to address a single research question.

2. The Emergence of the Mixed-Methods Research

Over the past 30 years, mixed-methods research has been increasingly seen as a third approach in research methodology. Let us examine where the idea of combining methodologies has come from.

The real breakthrough in combining qualitative and quantitative research occurred in the 1970s with the introduction of the concept ‗triangulation' into social sciences. The tem was borrowed from naval navigation and land surveying where it refers to a method for determining the position of a certain spatial point though measurement operations from two known points.

In social sciences, triangulation refers to a research strategy that involves approaching a research question from two or more angles in order to converge and cross-validate findings from a number of sources. In combining both quantitative and qualitative approaches, mixed-methods research embodies the notion of triangulation.

In the 1990s, the paradigm war between the different proponents of different methods lost its edge and mixed-methods researchers gained ideological confidence by drawing on the philosophy of _pragmatism‘.

Pragmatism is a paradigm that provides a rationale for mixed-methods research. It rejects the traditional conception that the paradigms underlying quantitative and qualitative approaches (positivism and interpetivism respectively) are essentially incompatible and in conflict. Instead, it is argued that both quantitative and qualitative approaches have their own distinctive weaknesses and strengths and can be usefully combined to complement one another. Pragmatism advocates using whatever _woks best‘ in any particular research context.

3. How to Apply Mixed-Methods Research?

According to Creswell the combination of quantitative and qualitative methods can be done in a variety of ways. Here are two examples

3.1 Sequential Strategy

Quantitative data collection & analysis then qualitative data collection & analyzed (or vice versa)

Example: a researcher may start by conducting semi-structured interviews and then use the results from this phase to formulate specific closed-ended survey questions.

3.2 Concurrent Strategy

The qualitative and quantitative techniques for data collection and analysis are used simultaneously

Example: administering a questionnaire which contains both closed-ended and open-ended items.

4. Strengths & Weaknesses of Mixed-Methods Research

4.1 Strengths

- To gain fuller, richer and more complete understanding of a research question by combining both quantitative and qualitative perspectives.
- Multi-level analysis of complex issues: the results from using one approach may help to guide and inform another approach. Words can be used to add meaning to numbers, and numbers can be used to add precision to words. For example if we are interested in the exact nature (qualitative) and the distribution (quantitative) of a phenomenon.
- Mixed-methods research allows us to obtain data about both the individual and the broader societal context.
- Improved validity: mixed-methods research has a unique potential to produce evidence for the validity of research outcomes through the convergence of the findings (triangulation).

4.2 ***Weaknesses***

- Lengthy data collection and analysis phases required leading to heavy demands on both time and funding resources.
- The researcher should be expert in the use of both quantitative and qualitative approaches
- The validity has been called into question in debates over the extent to which the underlying paradigms and methods of qualitative and quantitative can be seen as compatible

References

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.

Kothari, C. R. (2004). *Research methodology: methods & techniques.* New Delhi, India: New Age International Publishers.

Ruane, J. M. (2005). *A Guide to Social Science Research.* Maiden, USA: BLACKWELL PUBLISHING.

Practice

Read the following text then do the required task

Quantitative Research

Quantitative research has certain strengths and weaknesses as a methodology, and is mostly associated with the positivist tradition. Quantitative research produces _facts' about the world and behaviour, and these are viewed as adding to the sum of human knowledge. That is, the data thus collected tend to be accepted as they stand, and as valid measures of the variables they purport to indicate. Qualitative researchers tend to criticize these methods on the basis that most sources of data are not quite what they appear to be. They do not pay attention to social meanings and the ways in which the world is socially constructed. Also, from the viewpoint of critical researchers, the data are obtained using methods where the person or group under study are given no status, being subject to unequal power relations (Tavris, 1993).

There is a considerable tension between the qualitative and quantitative methodologies, and the researchers who deploy them. It has been suggested that the qualitative methodologies are best used when an area is little known, and so hypotheses cannot be generated for testing by those who support the hypothetico-deductive method. But this viewpoint negates the place of qualitative research as a methodology in its own right. Strong qualitative methodologists suggest that in quantitative research, the positivist view of facts leaves no place for participants as agents, and that many constructs do not exist except in the social world, and so cannot be investigated outside social interaction. Pragmatists suggest that quantitative methods, on the other hand, should be best deployed when more is known, so that hypotheses and research questions can be formulated, and easily tested.

Researchers intending to use any methodology need to have very clear ideas about the questions they need to address, and the most appropriate ways of investigating them.

The greatest advantage of quantitative research is the fact that the data obtained via these methods can be subject to considerable statistical analysis, can generalize beyond the sample under investigation, allowing the testing of hypotheses, and the evaluation of the efficacy of interventions in various area of interest, including social policy. In addition, experimentation would have no meaning without quantitative research methods.

Qualitative Research

Qualitative research is sometimes seen as lacking the rigour of quantitative research, producing _soft' data that is subjective and not easy to replicate, often based on small samples or case studies. There are difficulties in meeting the usual scientific criteria of validity, reliability and representativeness. However, the extent to which these criteria, derived from quantitative research, are applicable to the nature of qualitative research has been a matter of

debate (see, for example, Hammersley, 1992; Seale, 1999). Because it is predicated on traditions that point to the contested nature of social reality and which are critical of the idea of a single objective _truth' about the world, qualitative research fits well with critical perspectives, such as feminism, which aim to challenge the political assumptions embedded in social institutions and in the research process itself.

Although qualitative and quantitative research have traditionally been seen as opposed, and there are differences in terms of the underlying philosophical approaches, these differences are not always clear-cut (Layder, 1993). For example, qualitative research is increasingly used for theory testing as well as theory generation (Silverman, 1993). Many studies have used a combination of qualitative and quantitative methods. The value of qualitative research in a variety of settings, including market research and applied social research, has increasingly been recognized.

Text selected from

Jupp, V. (Ed.). (2006). *The Sage Dictionary of Social Research Methods*. London: Sage Publications.

The task: What do you think are the main advantages & disadvantages of quantitative and qualitative methods? (Write in the spaces below)

Quantitative Method

Strengths	***weaknesses***
……..	……..
……..	……..
……..	……..
……..	……..

Qualitative Method

Strengths	***weaknesses***
……..	……..
……..	……..
……..	……..
……..	……..

Planning a Research Study

Objectives: By the end of this theme, the students will learn about

- the sequential components of research;
- the work involved in conducting a research study that takes place prior to conducting the study itself;
- some research-related issues that need to be considered during the planning stage.

1. Selection of a Research Topic

The starting point of a research is the selection of a research topic. Researchers choose topics that are of interest to them.

Before choosing a research topic experienced and inexperienced researchers alike should keep the following points in mind.

• Topic should be suitable for research.

• The researcher should have interest in it.

• Topic should not be chosen by compulsion from someone else.

Where can an inexperienced researcher receive the inspiration for a good research topic?

Some sources of identification of a research topic are the following:

- Theory of one‘s own interest: from time to time something we read rings a bell and we realize that the topic could be further pursued.
- Daily problems: it may stem from a researcher‘s motivation to solve a problem.
- The conclusion section of most research articles tends to contain suggestions for further research.
- Technological changes
- Recent trends
- Unexplored areas

- Discussion with teachers, friends and potential supervisors can also be very helpful in drawing our attention to potentially fruitful issues.
- We can choose a research topic based on results of prior research. We may attempt to replicate the results obtained by other researchers or extend the findings of the previous research to different populations or settings.

here are some criteria that can help in determining whether a research topic is good:

- Is it creative
- Will the results make a valuable and significant contribution to the literature

In order to answer these questions and to check the originality of the topic, we have to look though the existing literature. It is the next step of the planning phase.

2. Literature Review

After choosing a topic, the researcher has to do literature survey connected with the issue in order to become familiar with the existing literature.

Literature survey can help guide the researcher in an appropriate direction by answering several questions related to the topic area:

- It is very essential to know whether the defined problem has already been solved.
- What do the results of previous studies suggest?
- What are the techniques that are useful to investigate the problem?
- Did previous researches encounter any unforeseen methodological difficulties?
- Does more research need to be conducted on this topic?

Literature survey helps us

- sharpen the problem, reformulate it or even leads to defining other closely related problems,
- get proper understanding of the problem chosen,
- acquire proper theoretical and practical knowledge to investigate the problem,

- show how the problem under study relates to the previous research studies

Literature survey is a collection of research publications, books and other documents related to the topic. It is time-consuming. Fortunately the development of comprehensive databases has facilitated the process of conducting literature reviews. One can survey

- the journals which publish abstracts of papers published in various journals,
- review articles related to the topic chosen,
- journals which publish research articles,
- proceedings of conferences, workshops, etc.,
- Master dissertations and PhD theses.

Through survey one can collect relevant information about the problem. Clarity of ideas can be acquired through study of literature. Apart from literature directly connected with the problem, the literature that is connected with similar problems is also useful. It helps formulate the problem in a clear-cut way. A review on past work helps us know the outcome of those investigations where similar problems were solved. It can help us design methodology for the present work. We can also explore the vital links with the various trends and phases in the chosen topic and familiarize with characteristic precepts, concepts and interpretations. Further, it can help us formulate a satisfactory structure of the research proposal.

3. Formulating a Research Problem

After identifying a gap in the previous literature, a research problem has to be defined and formulated properly. The research problem takes the form of a concise question regarding the relationship between two or more variables. For this purpose, one can execute the following.

- State the problem in questionnaire form or in an equivalent form
- Specify the problem in detail and in precise terms
- List the assumptions made

Defining the problem is more important than its solution. It is a crucial part of the research study and should not be defined in hurry. It should be consistent with conceptual framework (theory).

Good research problems must meet three criteria

- The research problem should describe the relationship between two or more variables.
- The research problem should take the form of a question. It should be composed of a precisely stated research question that clearly identifies the variables being studied.
- The research problem must be capable of being tested empirically (i.e., with data derived from direct observation and experimentation). It should be Answerable and form a basis for data collection

4. Articulating Hypotheses

Articulating hypotheses is one of the most important steps in the research planning process. Hypotheses are statements that formulate specific predictions about the outcomes of the research. They must be falsifiable. That is, they may be capable of being refuted on the basis of the results.

There are two broad categories of hypotheses:

- ***Null Vs Alternate Hypotheses***

The null hypothesis predicts that there will be no relationship between the variables being studied. It can be either confirmed or refuted. By contrast, the alternate hypothesis always predicts that there will be a difference between the groups being studied (or a relationship between the variables being studied).

- ***Directional & Non-directional Hypotheses***

Non-directional hypothesis predicts that there will be a difference between the groups or the categories, but it does not specify how the groups will differ. Directional hypothesis, on the

other hand, specify the way in which the different groups o categories will differ. It tends to use comparison terms such as: greater, less, better etc.

The decision regarding whether to use a directional or a non-directional hypothesis is based on whether the researcher has some idea about how the groups being studied will differ.

References

Cohen, L., Manion, L., & Morrison, K. (2005) *Research Methods in Education* (5th ed.). London,UK: RoutledgeFalmer.

Dornyei, Z. (2007). *Research methods in applied linguistics*. London, UK : Oxford University Press.

Marczyk, G., DeMatteo, D., & Festinger, D. (Eds.) (2005). *Essentials of research design and methodology*. Hoboken, NJ: John Wiley & Sons.

Practice

What research interests have you? Write your thoughts in the space below.

At this stage, just keep your ideas broad and general.

Why are you interested in the above subject or topic? Write your thoughts in the space below:

Try now and think about your research title and possible research approach. Use the grid below to try and think this through. Your ideas are just provisional at this stage, so no one will commit you to them – you can change your mind!

Title (Think of a title that describes succinctly the nature of your proposed research)	Approach	Methodology e.g. case, study, survey, etc.	The _tools' or methods to collect primary data, e.g. questionnaire, interviews etc.

Types of Research Design

Objectives: By the end of this theme, the students will learn about

- the different research designs within which different studies may be conducted: case studies, survey research, interpretive research and experimental studies.
- to draw a distinction between quantitative and qualitative research designs.

Introduction

A research design is the arrangement of conditions for collection and analysis of data. It is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data.

Case Study Research

1. Definition

Case research, also called case study, is a method of intensively studying a phenomenon over time within its natural setting in one or a few sites. It focuses on individual actors or groups of actors, and seeks to understand their perceptions of events. Multiple methods of data collection, such as interviews, observations, pre-recorded documents, and secondary data, may be employed and inferences about the phenomenon of interest tend to be rich, detailed, and contextualized. Case research can be employed in a positivist manner for the purpose of theory testing or in an interpretive manner for theory building.

Here are two definitions provided by two well-known methodologists in education:

> *"a case study is an exploration of a „bounded system" o a case (or multiple cases) over time through detailed, in-depth data collection involving multiple sources of information rich in context" (Creswell, 1998)*
> *"a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident. The case study inquiry copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result benefits from the prior development of theoretical propositions to guide data collection and analysis"*
> *(Yin, 2003)*

Although generally associated with qualitative research, cases may be analyzed quantitatively as well.

2. Historical Roots of Case Study in Social Sciences

Researchers have systematically analysed the observable behaviours of those around them, whether their children, students, clients or patients, for generations. Applied linguists are no exception in this regard. Very important case studies of children are plentiful in the literature in developmental psychology. Here are some well-known examples of cases studies:

- Darwin published a study of his son in 1877.
- Piaget in studying his own children developed states of cognitive structure that have had an enormous impact on curriculum and instruction.

3. Types of Case Studies

- **Descriptive**

Descriptive research can be used to identify and classify the elements or characteristics of the subject.

- **Explanatory**

Also known as analytical research, explanatory case often extends the Descriptive approach to suggest or explain why or how something is happening.

- **Exploratory**

Exploratory research is undertaken when few or no previous studies exist. The aim is to look for patterns, hypotheses or ideas that can be tested and will form the basis for further research.

- **Comparative**

A comparative case study involves the analysis of the similarities and the differences across two or more cases that share a common focus or goal.

- **Evaluative**

An evaluative case study involves an in-depth description and analysis of a particular instance or aspect of a program. It requires enough time on the ground, observing, talking to people and collecting other data to gain a detailed picture of the program being evaluated. Its aim is to improve a program by evaluating its strengths and weaknesses.

4. Procedures for Conducting a Case Study

Regardless of the focus or nature of the case, the methodological principles and priorities are basically the same. The individual case is selected on the basis of specific psychological, biological, sociocultural, institutional, o linguistic attributes, representing a particular age group, a combination of first and second languages, an ability level, a skill area such as reading or writing, a linguistic domain such as morphology and syntax.

Several procedures are available for conducting case studies. Here is an example of a procedure suggested by Stake as reported by Creswell:

- First, researchers determine if a case study approach is appropriate to the research problem. A case study is a good approach when the inquirer has clearly identifiable cases with boundaries and seeks to provide an in-depth understanding of the cases or a comparison of several cases.
- Researchers next need to identify their case or cases. These cases may involve an individual, several individuals, a program, an event, or an activity.
- The data collection in case study research is typically extensive, drawing on multiple sources of information, such as observations, interviews, documents, and audiovisual materials.
- The type of analysis of these data can be a *holistic analysis* of the entire case or an *embedded analysis* of a specific aspect of the case.
- In the final interpretive phase, the researcher reports the meaning of the case, this phase constitutes the ―lessons learned" from the case.

5. Determining Variables for a Case Study Research

An important step when conducting a case study is identifying what variables will be the focus of the study.

A variable is anything that can take on different values, for example age, race, attitude, gender, motivation, level, etc. by contrast, if something cannot vary, or take on different values, then it is referred to as a constant.

There are different types of variables, for the purposes of the present course focus is put on two types: dependent & independent variables.

To explain the differences between the dependent and the independent variable let us take an example of a study ―to examine the impact of gender differences on language use‖.

Language use is a dependent variable because it is influenced by gender differences.

‗Gender differences‘ is an independent variable because it is not controlled by the researcher.

The selection of the dependent and the independent variables follows logically from the statement of the research problem and hypotheses.

References

Bhattacherjee, A. (2012). *Social science research: principles, methods, and practices* (2nd ed.). *USF Tampa Bay Open Access Textbooks Collection.* Book 3. [http://scholarcommons.usf.edu/oa_textbooks/3]

Creswell, J. W. (2007). *Qualitative inquiry& research design Choosing among five approaches* (2nd ed.). London, UK: Sage Publications.

Dornyei, Z. (2007). *Research methods in applied linguistics*. London, UK : Oxford University Press.

Duff, P. A. (2008). *Case study research in applied linguistics.* New York, USA: Lawrence Erlbaum Associates.

Practice

Read the following text in order to fill in the table.

A major feature of the case study, according to Hakim (2000), is its flexibility. It can range from a simple narrative description to a very rigorous study achieving experimental isolation by the selection of cases on the basis of the presence or absence of key factors rather than the use of random assignment.

A case study can involve a single case (for example, a community study or a _sociobiography‘ of a member of a deviant subculture) or a number (possibly quite large) of cases (for example, in the analysis of the conflict behaviour of different types of work groups).

The main thrust of a case study can be descriptive, exploratory or explanatory (Yin, 1984). Exploratory case studies may provide initial analysis of a phenomenon that will then be systematically explored in other studies, possibly by the use of another approach, such as a sample survey. Or they may follow on from survey work to provide a more detailed account of particular findings. A descriptive study will attempt to provide a full portrayal of the case or cases being studied.

An explanatory case study will attempt to provide an account of what caused a particular phenomenon observed in the study.

Case studies have a key place in policy research. They are frequently undertaken to provide examples of good practice in the delivery of a specific policy or programme, or they may be undertaken as part of an evaluation project, providing examples of the impact of a policy. In these, and other instances, a key factor affecting the success of the study will be the criteria for selection of the cases to be studied.

For the results to be persuasive they will normally need to be based on cases that provide a report of the operation of the policy in a range of settings. There may, however, be occasion to test the policy in a _critical-case‘ setting, which presents the most difficult circumstances for it to succeed.

The main criticism of the case study method is that in most circumstances the individual cases are not sufficiently representative to permit generalization to other situations. Efforts to overcome this perceived weakness include increasing the number of cases so as to improve their representativeness, and provide for comparative analysis within the case study (Bryman, 1988). But, as Yin (1984) argues, this issue affects other methods as well. How is it possible to generalize from an individual experiment? In both instances the generalization involves the statement of a theoretical proposition, which in turn will be tested through the use of further case studies and other methods. This, for example, is often the use of case studies in the study of organizations, where organizational theory has been developed on the basis of one or a small number of cases. The depth and rigour of the analysis will be the crucial issue here. Where negative or critical cases are used to test and develop theories, the term *analytic induction* is sometimes used.

As was noted above, case studies are frequently exploratory in nature and are linked with other methods. In these instances the case study may be viewed less as a vehicle for generalization than as a form of pilot study. Also, in policy research it may be not necessary to have numerous cases in order to identify the negative impact of a phenomenon, policy or

programme. The main factor here will be whether the criteria for the selection of the case or cases will provide a robust test.

Text selected from

Jupp, V. (Ed.). (2006). *The Sage Dictionary of Social Research Methods*. London: Sage Publications.

Advantages of Case Study Research	***Disadvantages of Case Study Research***
…….....	…….
……..	…….
……	……...
……..	…….

Survey Research

1. Definition

Survey research involves the use of standardized questionnaires or interviews to collect data about people and their preferences, thoughts, and behaviours in a systematic manner. The survey method can be used for descriptive, exploratory, or explanatory research. It is used to quantitatively describe specific aspects of a given population. These aspects often involve examining the relationships among variables. The data required for survey research are collected from people and are, therefore, subjective. It uses a selected portion of the population from which the findings can later be generalized back to the population.

Although census surveys were conducted as early as Ancient Egypt, survey as a formal research method was pioneered in the 1930-40s by sociologist Paul Lazarsfeld to examine the effects of the radio on political opinion formation of the United States. This method has since become a very popular method for quantitative research in the social sciences.

2. Types of Surveys

There are different modes of survey use

3.1 Postal surveys

Probably the best-known kind of survey is that which involves sending _self completion' questionnaires through the post. This generally involves a large scale mailing covering a wide geographical area.

3.2 Telephone surveys

Telephone surveys, like Internet surveys, are now in widespread use in social research. They provide an alternative to postal and Internet surveys as a means of collecting questionnaire data, and they can also be used for conducting interviews.

3.3 Internet surveys

Internet surveys provide a fast and cheap alternative to postal surveys and, for this reason; they can prove to be an attractive proposition for project researchers who need results quickly. Internet surveys can take the form of:

• *An email questionnaire* where the questions are sent as part of the email itself;

• A questionnaire sent as *an attachment* to an email;

• *A web-based questionnaire* where the questionnaire is a web page located on an Internet site waiting for people who visit the site to complete it.

3.4 Group-administered surveys

Group-administered surveys are conducted in person. They rely on the researcher undertaking the survey by being on site to distribute and collect the research instrument – normally a questionnaire. The groups generally already exist. Rather than get a group of people together specifically for the purpose, it is easier from the researcher‘s point of view to use naturally occurring groups.

For example, a survey of young people could involve the distribution of questionnaires in schools to whole classes

3.5 Face-to-face surveys

Face-to-face surveys involve direct contact between the researcher and individual respondents and they normally make use of various forms of questionnaires or interviews as their data collection method.

3. Categories of Surveys

Depending on how the data is collected, survey research can be divided into two broad categories: questionnaire surveys (which may be mail-in, group-administered, or online surveys), and interview surveys (which may be personal, telephone, or focus group interviews). Questionnaires are instruments that are completed in writing by respondents,

while interviews are completed by the interviewer based on verbal responses provided by respondents.

4. Characteristics of Surveys

Surveys have emerged in recent times as one of the most popular and commonplace approaches to social research. Here are some of their crucial characteristics:

- *Wide and inclusive coverage*: Implicit in the notion of ‗survey' is the idea that the research should have a wide coverage – a breadth of view. A survey, in principle, should take a panoramic view and ‗take it all in'.
- *At a specific point in time*: Surveys provide a snapshot of how things are at a specific point in time. In most cases this is useful for ‗bringing things up to date' and providing information about the current state of affairs. However, there are also occasions when researchers do an historical survey to show how things used to be at a particular point in the past, or even use a sequence of surveys as the basis for tracking changes over a period of time.
- *Empirical research*: Because ‗to survey' carries with it the meaning ‗to look', survey work inevitably brings with it the idea of empirical research. It involves the idea of getting out of the chair, going out of the office and purposefully seeking the necessary information ‗out there'.
- Surveys are an excellent vehicle for measuring a wide variety of unobservable data, such as people's preferences (e.g., political orientation), traits (e.g., self-esteem), attitudes (e.g., toward immigrants), beliefs (e.g., about a new law), behaviors (e.g., smoking or drinking behavior), or factual information (e.g., income).
- Due to their unobtrusive nature and the ability to respond at one's convenience, questionnaire surveys are preferred by some respondents.

- Interviews may be the only way of reaching certain population groups such as the homeless or illegal immigrants for which there is no sampling frame available.
- Survey research is economical in terms of researcher time, effort and cost than most other methods such as experimental research and case research.

References

Bhattacherjee, A. (2012). *Social science research: principles, methods, and practices* (2nd ed.). *USF Tampa Bay Open Access Textbooks Collection.* Book 3. [http://scholarcommons.usf.edu/oa_textbooks/3]

Dencombes, M. (2010). *The good research guide: for a small-scale social research projects* (4th ed.). Berkshire, England: Open University Press.

Glasow, P. A. (2005). *Fundamentals of Survey Research Methodology.* Washington C3 Center.

Practice

Read the following text then do the required task

Social survey is a method of social research with three defining characteristics – its type of content, its form of the data and the method of analysis employed (Marsh, 1982). Its content is social, the form of data is systematic, structured and based around variables and the method of analysis relies on comparisons across groups.

The content of a social survey is social – it deals with human behaviour, knowledge, attributes, beliefs and attitudes. Surveys produce a structured data set in the form of a variable-by-case grid. The grid consists of rows, representing cases, columns representing variables and cells that contain information about a case‘s attribute on the specific variable.

There are two broad types of social surveys – descriptive and explanatory. The descriptive survey seeks to describe the distribution of phenomena in a sample and population. The explanatory survey seeks to explain relationships between variables – to explain why things are as they are. Many surveys fulfil both functions.

Survey analysis is based on systematically comparing cases and examining variation and correlation between variables. Explanations are sought by examining variation in the dependent variable (presumed effect) and selecting an independent variable (presumed cause) that might be responsible for this variation.

Analysis involves observing whether variation in the dependent variable (for example, income) is systematically linked to variation in the independent variable (such as gender). While any such co-variation does not demonstrate causal relationships, such covariation is a prerequisite for causal relationships.

More complex multivariate data analysis methods seek to untangle the complex relationships between the many factors that affect social behaviour and to control for the effects of extraneous variables that experiments achieve via random allocation to groups.

While survey research is often equated with questionnaire-based studies there is no necessary relationship between the survey method and the particular techniques by which data are collected. A critical and distinguishing characteristic of a survey is that it yields a structured data set that produces a variable-by-case data grid. The particular techniques by which the data are collected for this grid can vary widely.

Social surveys can provide a relatively efficient method for collecting information from a large number of cases. The data grid that is produced in a survey is well suited to statistical analysis and thus is amenable to the potential power of statistical methods. Where a survey collects data from large probability samples the extent to which patterns in the sample are likely to hold in the population at large can be estimated as such survey research results can be generalized to a wider population with a known degree of confidence.

There is general agreement that surveys provide an effective way of describing the more objective characteristics of a population. However, there is less agreement about whether survey research can produce data that enable the testing of causal relationships and understanding of behaviour in terms of its subjective meaning to actors. Some critics argue that the focus on variables ignores the context in which the behaviour occurs and the intentions of actors. They argue that surveys rely on imposing external explanations for behaviour and ignore the intentional and subjective component.

Text selected from

Jupp, V. (Ed.). (2006). *The Sage Dictionary of Social Research Methods*. London: Sage Publications.

The Task: what do you think are the strengths and weaknesses of survey research? Fill in the following table.

Advantages of Survey Research	***Disadvantages of Survey Research***
…….....	…….
……..	…….
……	……

Interpretive Research

1. Definition

Interpretive case research is an inductive technique where evidence collected from one or more case sites is systematically analyzed and synthesized to allow concepts and patterns to emerge for the purpose of building new theories or expanding existing ones.

Interpretive research has its roots in anthropology, sociology, psychology, linguistics, and semiotics, and has been available since the early 19th century, long before positivist techniques were developed. Many positivist researchers view interpretive research as erroneous and biased, given the subjective nature of the qualitative data collection and interpretation process employed in such research. However, the failure of many positivist techniques to generate interesting insights or new knowledge have resulted in a resurgence of interest in interpretive research since the 1970‘s, albeit with exacting methods and stringent criteria to ensure the reliability and validity of interpretive inferences.

2. Interpretive Research & Qualitative Research

The term ―interpretive research‖ is often used loosely and synonymously with ―qualitative research‖, although the two concepts are quite different. Interpretive research is a research paradigm that is based on the assumption that social reality is not singular or objective, but is rather shaped by human experiences and social contexts (ontology), and is therefore best studied within its socio-historic context by reconciling the subjective interpretations of its various participants (epistemology). Because interpretive researchers view social reality as being embedded within and impossible to abstract from their social settings, they ―interpret‖ the reality though a ―sense-making‖ process rather than a hypothesis testing process. This is in contrast to the positivist or functionalist paradigm that assumes that the reality is relatively independent of the context, can be abstracted from their contexts, and studied in a decomposable functional manner using objective techniques such as standardized measures.

Whether a researcher should pursue interpretive or positivist research depends on paradigmatic considerations about the nature of the phenomenon under consideration and the best way to study it.

However, qualitative versus quantitative research refers to empirical or data-oriented considerations about the type of data to collect and how to analyze them. Qualitative research relies mostly on non-numeric data, such as interviews and observations, in contrast to quantitative research which employs numeric data such as scores and metrics. Hence, qualitative research is not amenable to statistical procedures such as regression analysis, but is coded using techniques like content analysis. Sometimes, coded qualitative data is tabulated quantitatively as frequencies of codes, but this data is not statistically analyzed. Many puritan interpretive researchers reject this coding approach as a futile effort to seek consensus or objectivity in a social phenomenon which is essentially subjective.

3. Interpretive Research & Quantitative Research

Interpretive research design and quantitative research differ in several ways:

First, interpretive research employs a theoretical sampling strategy, where study sites, respondents, or cases are selected based on theoretical considerations such as whether they fit the phenomenon being studied (e.g., sustainable practices can only be studied in organizations that have implemented sustainable practices), whether they possess certain characteristics that make them uniquely suited for the study (e.g., a study of the drivers of firm innovations should include some firms that are high innovators and some that are low innovators, in order to draw contrast between these firms), and so forth. In contrast, positivist research employs random sampling (or a variation of this technique), where cases are chosen randomly from a population in order to generalise from the sample to the population. Hence, convenience samples and small samples are considered acceptable in interpretive research as long as they fit the nature and purpose of the study, but not in positivist research.

Second, the role of the researcher receives critical attention in interpretive research. In some methods such as ethnography, action research, and participant observation, the researcher is considered part of the social phenomenon, and her specific role and involvement in the research process must be made clear during data analysis.

Third, interpretive analysis is holistic and contextual, rather than being reductionist and isolationist. Interpretive interpretations tend to focus on language, signs, and meanings from

4. Characteristics of Interpretive Research

- *Naturalistic inquiry:* Social phenomena must be studied within their natural setting. Because interpretive research assumes that social phenomena are situated within and cannot be isolated from their social context, interpretations of such phenomena must be grounded within their socio-historical context. This implies that contextual variables should be observed and considered in seeking explanations of a phenomenon of interest, even though context sensitivity may limit the generalizability of inferences.
- *Researcher as instrument:* Researchers are often embedded within the social context that they are studying, and are considered part of the data collection instrument in that they must use their observational skills, their trust with the participants, and their ability to extract the correct information. Further, their personal insights, knowledge, and experiences of the social context is critical to accurately interpreting the phenomenon of interest. At the same time, researchers must be fully aware of their personal biases and preconceptions, and not let such biases interfere with their ability to present a fair and accurate portrayal of the phenomenon.
- *Interpretive analysis:* Observations must be interpreted through the eyes of the participants embedded in the social context. Interpretation must occur at two levels. The first level involves viewing or experiencing the phenomenon from the subjective perspectives of the social participants. The second level is to understand the meaning of the participants‘

experiences in order to provide a ―thick description‖ or a rich narrative story of the phenomenon of interest that can communicate why participants acted the way they did.

- *Use of expressive language:* Documenting the verbal and non-verbal language of participants and the analysis of such language are integral components of interpretive analysis. The study must ensure that the story is viewed through the eyes of a person, and not a machine, and must depict the emotions and experiences of that person, so that readers can understand and relate to that person. Use of imageries, metaphors, sarcasm, and other figures of speech is very common in interpretive analysis.
- *Temporal nature:* Interpretive research is often not concerned with searching for specific answers, but with understanding or ―making sense of‖ a dynamic social process as it unfolds over time. Hence, such research requires an immersive involvement of the researcher at the study site for an extended period of time in order to capture the entire evolution of the phenomenon of interest.

References

Bhattacherjee, A. (2012). *Social science research: principles, methods, and practices* (2nd ed.). *USF Tampa Bay Open Access Textbooks Collection.* Book 3. [http://scholarcommons.usf.edu/oa_textbooks/3]

Jupp, V. (Ed.). (2006). *The Sage Dictionary of Social Research Methods*. London: Sage Publications.

Schwartz-Shea, P., & Yanow, D. (2012). *Interpretive research design: concepts and processes.* New York: Routledge

Practice

Read the following text then do the required task

For interpretive researchers, by contrast, choices of cases and access are often intertwined - reasonably so, given the research purpose of understanding meaning making in particular sites. In addition, for interpretive research, both randomized selection and substitutability of one case for another are problematic, for related reasons. We illustrate the point with the example of documentary research, in which the notion of the random selection of texts (―cases‖) is rarely appropriate or feasible. For one, as mentioned above, random selection

requires a sampling frame. Depending on the research question, compiling a complete list of documents from which to sample assumes the availability of and unfettered access to collections that are open and whose materials are organized and catalogued, prior knowledge of what these contain, as well as a priori judgment about which documents are likely relevant—all of which are problematic in various ways from the perspective of interpretive research, as well as the realities of archives and other repositories, especially in the ―non- Western‖ world.

Even more importantly, the possibility of substitution is material: one text, one photograph or painting, or one person is not as good as any other, in all situations.

Rather than seeking texts or other cases for purposes of generalization, the interpretive documentary researcher wants not just any text but *those that matter (or mattered) to the agents under study*—another way in which context is significant. An interpretive documentary research strategy follows the ―intertextual‖ trail from initial documents to related ones— Ferguson's ―Oh, look, there's another one . . .‖ experience (quoted in Chapter 1)—as the researcher's knowledge deepens and his or her research question(s) become(s) more nuanced (L. Hansen 2006, C. Lynch 2006).The same holds for following ideas and persons in an interview- or observation-based study.

Furthermore, the language of ―case selection‖ implies considerable researcher control—warranted in the case of experimental and much survey research, but potentially problematic in field research where denial of access to particular archives, persons or other sorts of ―cases‖ cannot always be solved by simple selection of an equivalent, replacement document, individual, or case. For these reasons, the language of ―case selection‖ is not appropriate to interpretive research design: it fails to recognize the significant ways in which access may be contingent on the identity of the researcher, as if *any* researcher, in *any* circumstance, possesses the ability to select *any* case at will.

Interpretive design needs to be concerned with the choices of settings, actors, archives, and so forth and with a focus on access and its relational dimensions. By contrast with the language of selection, the language of access recognizes the embodied and inescapably social aspects of the research process.

Regardless of methodological approach, denial of access to field or archival settings is possible no matter how assiduously contacts have been cultivated. For instance, a researcher studying public hearings on impending urban renewal might find those hearings delayed by months or even years. Or increased press scrutiny of an agency the researcher had planned to study could mean that previously supportive gatekeepers withdraw their approval. The promulgation of the Common Rule in the US in the context of Institutional Review Board policies and practices, by making consent more bureaucratic and legalistic, has also complicated researcher negotiations for access. Still, there remains a key distinction between positivist and interpretive approaches to the relationship between access and knowledge claims, and it hinges on the centrality of *contextuality* to the research. Because the meaning making of those studied is intimately linked with context, the complex issues of researcher access—including the relative power of individuals and groups, the possible kinds and degrees of participation, and positionality—need attention from the very beginning in designing an interpretive research project. These issues are understood as methodologically

relevant to the research project, and they therefore need to be considered and taken into account in its design.

Text selected from

Schwartz-Shea, P., & Yanow, D. (2012). *Interpretive research design: concepts and processes.* New York: Routledge

The task: write a 20-line essay to discuss the challenges of interpretive researchers in terms of selection and access to data.

Experimental Research

1. Definition

Experimental research, often considered to be the ―gold standard‖ in research designs, is one of the most rigorous of all research designs. It is used to draw causal inferences regarding the impact of an independent variable on a dependent variable.

Experimental studies are done in carefully controlled and structured environments and enable the causal relationships of phenomena to be identified and analysed. The variables can be manipulated or controlled to observe the effects on the subjects studied. The central part of this design is comparison (the control and the experimental groups).

In this design, one or more independent variables are manipulated by the researcher (as treatments), subjects are randomly assigned to different treatment levels (random assignment), and the results of the treatments on outcomes (dependent variables) are observed.

Experimental research is best suited for explanatory research (rather than for descriptive or exploratory research), where the goal of the study is to examine cause-effect relationships.

2. Basic Concepts

- ***Experimental and control groups***: In experimental research, some subjects are administered one or more experimental stimulus called a treatment (the treatment/experimental group) while other subjects are not given such a stimulus (the control group).
- ***Treatment manipulation***: Treatments are the unique feature of experimental research that sets this design apart from all other research methods. Treatment manipulation helps control for the ―cause‖ in cause-effect relationships.
- ***Pre-test measures*** are measurements conducted before the treatment is administered.
- ***Post-test measures*** are conducted after the treatment has been administered.

- ***Random selection and assignment:*** it is a process of randomly assigning subjects to experimental or control groups. This approach assures that each unit in the population has a positive chance of being selected into the sample.

3. Experimental & Quasi-experimental Designs in Social Sciences

Experimental research can be grouped into two broad categories: true experimental designs and quasi-experimental designs. Both designs require treatment manipulation, but while true experiments also require random assignment, quasi-experiments do not. Said differently, a true experimental design is one in which study participants are randomly assigned to experimental and control groups.

Here is an example of random assignment: if you have three groups or conditions, you may use the numbers 1, 2, and 3. alternatively, if you were assigning participants to two groups, you could use the numbers 1 and 2, or simply odd or even numbers, to determine the group assignments. The important point is that you define the assignment criteria ahead of time, so that your selections are not biased and remain purely random.

Quasi-experimental designs are almost identical to true experimental designs, but lacking one key ingredient: random assignment. For instance, one entire class section or one organization is used as the treatment group, while another section of the same class or a different organization in the same industry is used as the control group. This lack of random assignment potentially results in groups that are non-equivalent, such as one group possessing greater mastery of a certain content than the other group, say by virtue of having a better teacher in a previous semester, which introduces the possibility of *selection bias*.

There are two specific ways of improving the design of quasi-experimental studies:

- Avoiding any situations whereby the students self-select themselves (for example volunteer) to be in the treatment group.

- Minimizing pre-test differences between the treatment and the control groups as much as possible.

4. The Procedure

First, the researcher must identify and define the research problem as precisely as possible, always supposing that the problem is amenable to experimental methods.

Second, she must formulate hypotheses that she wishes to test. This involves making predictions about relationships between specific variables and at the same time making decisions about other variables that are to be excluded from the experiment by means of controls. Variables, remember, must be measurable.

Third in planning the design of the experiment, the researcher selects two groups of participants: an experimental group and a control group through random assignments.

Fourth a pre-test is organized for both groups.

Fifth, the experimental group will receive the experimental treatment.

Sixth, a post-test is organized to indicate the changes that occur after the experiment.

Once all the data are collected, the researcher faces the most important part of the whole enterprise. Processing data, analysing results and drafting reports are all extremely demanding activities, both in intellectual effort and time.

5. An Example from Educational Research

- Research topic: Investigating the impact of explicit vocabulary instruction on EFL learners‘ writing skills.
- Participants: two groups of students
- Treatment: explicit vocabulary instruction during three months.
- Analysis: through inferential statistics, the results of the two groups in pre- and post-tests are compared.

References

Bhattacherjee, A. (2012). *Social science research: principles, methods, and practices* (2nd ed.). *USF Tampa Bay Open Access Textbooks Collection.* Book 3. [http://scholarcommons.usf.edu/oa_textbooks/3]

Cohen, L., Manion, L., & Morrison, K. (2005) *Research Methods in Education* (5th ed.). London,UK: RoutledgeFalmer.

Dornyei, Z. (2007). *Research methods in applied linguistics*. London, UK : Oxford University Press.

Marczyk, G., DeMatteo, D., & Festinger, D. (Eds.) (2005). *Essentials of research design and methodology.* Hoboken, NJ: John Wiley & Sons.

Practice

Read the following text in order to fill in the table.

The settings in which experiments are conducted vary from laboratories to real-life social settings. Laboratory settings have the advantage of being able to control many of the extraneous factors and can help ensure that both the experimental and control groups have the same experiences throughout the experiment. However, because of concerns about artificiality and the fact that many social experiments last for extended periods, laboratory experiments are not widely used in social research. Real-life experiments involve either field experiments or natural quasi-experiments. Field experiments are conducted in real-life settings but retain many of the essential features of the classic experimental design. In a field experiment the investigator creates experimental and control groups through the randomized allocation of participants to particular experimental interventions. The investigator actively intervenes and exposes particular experimental groups to specific interventions.

Generally speaking, the experimental design has been seen as providing a more powerful way than non-experimental designs to uncover causal relationships. However, it encounters important shortcomings in social research. One difficulty arises from practical and ethical considerations. It is frequently neither ethical nor feasible to intervene in people‘s lives to see what happens. Experiments can also face methodological shortcomings. While experiments provide a powerful way of identifying the causal impact of an intervention this comes at a cost. By removing the influence of all other factors through random allocation to experimental and control groups the experiment has only a limited capacity to arrive at explanations as to why one factor has the effect it does. Nor is it a good way of building a picture of how a set of factors produce a particular outcome. Experiments typically focus on the impact of just one or two factors.

A number of factors can threaten the internal validity of experimental results because they can create changes in the outcome independently of the experimental intervention. This makes it difficult to evaluate the extent to which change is due to the intervention.

Since both experimental and control groups should be affected equally by most of these issues, it is possible to isolate the influence of the experimental intervention by focusing, not

on the absolute amount of change, but on differences in the levels of change between the experimental and control groups. While it can be difficult to implement the classic experimental design in social research it is nevertheless a useful model to bear in mind when designing research. The logic of the design is useful and can inform the development of less rigorous, quasi-experimental designs.

Text selected from

Jupp, V. (Ed.). (2006). *The Sage Dictionary of Social Research Methods*. London: Sage Publications.

Strengths of Experimental Research	***Weaknesses of Experimental Research***
…….....	…….....
……..	……..
…….	…….
……..	……..
……	……

Questionnaires

Objectives: By the end of this theme, the students will learn about

- questionnaires as data collection tools in social sciences;
- how to structure and organise a questionnaire;
- the criteria of good questionnaires in terms of item wording an sequencing.

1. Definition

A questionnaire is a set of carefully designed items given in exactly the same form to a group of people in order to collect data about some topic(s) in which the researcher is interested. Quite often questionnaire is considered as the heart of a survey operation. Hence it should be very carefully constructed. If it is not properly set up, then the survey is bound to fail.

2. What do we Measure through Questionnaires?

Broadly speaking, questionnaires can yield three types of data about the respondents:

- *Facts:* Factual information does not require much in the way of judgement or personal attitudes on the part of respondents. It just requires respondents to reveal straightforward information (such as demographic characteristics, socio-economic status, language learning history etc.) An example of a _fact‘ question might be _Which TV programmes did you watch last night?‘
- *Behaviours, habits, & practices.*
- *Attitudes, opinions, & beliefs:* Opinions, attitudes, views, beliefs, preferences, etc. can also be investigated using questionnaires. Respondents are required to reveal information about feelings, to express values and to weigh up alternatives in a way that calls for a judgement about things rather than the mere reporting of facts. An example of an _opinion‘ question might be _Which is your favourite TV programme?‘

3. Questionnaire Format

- Title

- General introduction: the purpose of the study, promise of confidentiality, emphasize that there is no right or wrong answer, request honest answers, instructions.
- Questionnaire items
- Final _thank you‘

4. Questionnaire Design

Questionnaire items are divided into two broad categories:

4.1 ***Closed-ended items:*** they don‘t require the respondents to produce any free writing. They have the advantages of easy handling, simple to answer, quick and relatively inexpensive to analyse. They are most amenable to statistical analysis. Many types of items can fall within this category.

- Yes/No items: they require a _yes‘/_no‘ response. The dichotomous question is useful, for it compels respondents to _come off in the fence‘ on an issue. Further, it is possible to code responses quickly, there being only two categories of response.

Examples

- Have you ever read a novel on a digital device?
- Do you prefer inductive grammar teaching to deductive teaching?

- Dichotomous variables: a piece of research might ask for information about the determined variables involved in the study.). In these cases only one of two responses can be selected. This enables nominal data to be gathered,

Examples

- Gender (male/female),
- Type of school (elementary/secondary),
- Type of course (vocational/non-vocational

- True/false items: this type of items id mainly used with children to ensure reliability in domains where the respondent may not be able to properly the degree to which a particular feature is present or not.
- Multiple Choice Questions: a range of choices is designed to capture the likely range of responses to given statements or questions. The possible answers would have to be discrete (i.e. having no overlap and being mutually exclusive) and would have to exhaust the possible range of responses.

Examples

- How can you qualify digital reading in an academic context?

a. Useful
b. Useless
c. Important
d. Uninteresting

- How do you describe your overall experience with digital reading?

a. Enjoyable
b. Satisfactory
c. Neutral
d. Not comfortable
e. Frustrating

- Rank ordering: The rank order question is akin to the multiple choice question in that it identifies options from which respondents can choose, yet it moves beyond multiple choice items in that it asks respondents to identify priorities. This enables a *relative* degree of preference, priority, intensity etc.

Example

- What is/are your purpose(s) for accessing internet?

a. Social networks
b. Websites of news
c. Browsing
d. Academic purposes

- Rank the previous mentioned purposes in order of frequency of access.

.....

- Rank the previous mentioned purposes in order of importance.

.....

- Rating scales: There are different scales available in the literature. They provide a range of degrees of responses to a given question or statement.

Examples

Likert scale (named after its deviser, Rensis Likert, 1932): it consists of a characteristic statement and respondents are asked to indicate the extent to which they _agree‘ or _disagree‘ with it by marking one of the responses ranging from _strongly agree‘ to _strongly disagree‘.

- Digital reading may be important to my studies, but I don‟t expect it to be much fun.

a. Strongly agree

b. Agree

c. Neither agree nor disagree

d. Disagree

e. Strongly disagree

A semantic differential is a variation of a rating scale which operates by putting an adjective at one end of a scale and its opposite at the other,

- How informative do you consider the new set of history textbooks to be?

1 2 3 4 5 6 7

useful — — — — — — — useless

4.2 ***Open-ended items:*** they include items that are not followed by response options for the respondent to choose from but rather some blank space to fill in. The open-ended question is a very attractive device for smaller scale research or for those sections of a questionnaire that invite an honest, personal comment from the respondents in addition to ticking numbers and boxes. it puts the responsibility for and ownership of the data much more firmly into the respondents‘ hands.

Open-ended items are appropriate when the issue under consideration happens to be a complex one and also when the interest of the researcher is in the exploration of a process. In such situations, they permit a free response from the respondent rather than one limited to certain stated alternatives are considered appropriate.

Many types of items can fall within this category.

- Specific open questions: about concrete pieces of information.

Example

What are the things you consider when choosing a digital document to be read for academic purposes?

.....

- Clarification questions: attached to some answers like: _other‘, _pleases specify‘, _if yes, why‘.

Example

Do you prefer the digital libraries or the traditional ones?

a. Digital Libraries - b. Traditional Libraries

Why?.....

- Sentence completion: an unfinished sentence is presented for the respondents to complete.

Example

The thing I like most about the course is ……

5. Items Wording

The researcher should note that each question must be very clear for any sort of misunderstanding can do irreparable harm to a survey. Question should also be impartial in order not to give a biased picture of the true state of affairs. Questions should be constructed with a view to their forming a logical part of a well thought out tabulation plan.

In general, all questions should meet the following standards

(a) should be easily understood;

(b) should be simple i.e., should convey only one thought at a time;

(c) should be concrete and should conform as much as possible to the respondent‘s way of thinking.

6. Item Sequence

In order to make the questionnaire effective and to ensure quality to the replies received, a researcher should pay attention to the question-sequence in preparing the questionnaire. A proper sequence of questions reduces considerably the chances of individual questions being misunderstood. The question-sequence must be clear and smoothly-moving, meaning thereby that the relation of one question to another should be readily apparent to the respondent, with questions that are easiest to answer being put in the beginning. The first few questions are particularly important because they are likely to influence the attitude of the respondent and in seeking his desired cooperation. The opening questions should be such as to arouse human interest. The following type of questions should generally be avoided as opening questions in a questionnaire:

1. questions that put too great a strain on the memory or intellect of the respondent;
2. questions of a personal character;
3. questions related to personal wealth, etc.

Following the opening questions, we should have questions that are really vital to the research problem and a connecting thread should run through successive questions. Ideally, the question sequence should conform to the respondent‘s way of thinking. Knowing what information is desired, the researcher can rearrange the order of the questions (this is possible in case of unstructured questionnaire) to fit the discussion in each particular case. Relatively difficult questions must be relegated towards the end so that even if the respondent decides not to answer such questions, considerable information would have already been obtained. Thus, question-sequence should usually go from the general to the more specific and the

researcher must always remember that the answer to a given question is a function not only of the question itself, but of all previous questions as well.

7. Piloting the Questionnaire

In a structured questionnaire the best that can be done is to determine the question-sequence and the item-clarity with the help of a pilot study. A pilot study is done on a small scale to pre-test and check the clarity of the items.

It bears repeating that the wording of questionnaires is of paramount importance and that pretesting is crucial to its success. A pilot has several functions, principally to increase the reliability, validity and practicability of the questionnaire. It thus serves:

- To check the clarity of the questionnaire items, instructions and layout.
- To gain feedback on the validity of the questionnaire items, the operationalization of the constructs and the purposes of the research.
- To eliminate ambiguities or difficulties in wording.
- To gain feedback on the *type* of question and its format (e.g. rating scale, multiple choice, open, closed etc.).
- To gain feedback on response categories for closed questions, and for the appropriateness of specific questions or stems of questions.
- To gain feedback on the attractiveness and appearance of the questionnaire.
- To gain feedback on the layout, sectionalizing, numbering and itemization of the questionnaire.
- To check the time taken to complete the questionnaire.
- To check whether the questionnaire is too long or too short, too easy or too difficult, too threatening, too intrusive, too offensive.
- To generate categories from open-ended responses to use as categories for closed response-modes (e.g. rating scale items).

• To identify redundant questions (e.g. those questions which consistently gain a total _yes‘ or _no‘ response.

• To identify commonly misunderstood or non-completed items.

• To try out the coding/classification system for data analysis.

References

Cohen, L., Manion, L., & Morrison, K. (2005) *Research Methods in Education* (5th ed.). London,UK: RoutledgeFalmer.

Dencombes, M. (2010). *The good research guide: for a small-scale social research projects* (4th ed.). Berkshire, England: Open University Press.

Dornyei, Z. (2007). *Research methods in applied linguistics*. London, UK : Oxford University Press.

Jupp, V. (Ed.). (2006). *The Sage Dictionary of Social Research Methods*. London: Sage Publications.

Kalof, L., Dan, A., & Dietz, T. (2008). *Essentials of Social Research*. London, UK: Open University Press.

Kothari, C. R. (2004). *Research methodology: methods & techniques.* New Delhi, India: New Age International Publishers.

Practice

1. Consider the following pieces of information then do the required task

- A research topic: Investigating the Presence of English in the Algerian Media Sphere: The Case of ―the Radio Algeria International‖.
- Research questions:

  Q1: What are the reasons behind the use of English in the Radio Algeria International?

  Q2: What are the Algerian EFL students‘ perceptions and attitudes towards the use of English in the Radio Algeria International?

  Q3: What does the emergence of English in the Algerian media sphere reveal about the foreseeable future status of this foreign language in Algeria?

- Participants: The participants included in the current research involve two hundred and twenty (220) EFL students from three different universities: MMUTO, Algiers2, and Blida2.
- Data collection tool: Questionnaire

The task

- Suggest three different open-ended items then categorize them

- Suggest three different closed-ended items then categorize them

2. Write a short essay to account for the challenges facing researchers when they use questionnaires in social science research.

3. Consider the following items then categorise them

- What do you think about the UK‘s membership of the European Union?

  ……

- Please list the issues you feel are most important in relation to the UK‘s membership of the European Union.

  ……

- Have you travelled from the UK to another European Union country in the past 12 months? Yes/No

  ……

- European unity carries economic advantages which outweigh the political disadvantages.

  a. Strongly agree

  b. Agree

  c. Neither agree nor disagree

  d. Disagree

  e. Strongly disagree

  ……

- Which one of the following list of European countries do you feel has the strongest economy?

  - Germany
  - France
  - Spain
  - Greece

……

- From the following list of European countries choose the THREE which you feel have the strongest economies and put them in rank order:

Spain UK Belgium Netherlands Ireland France Germany Italy

……

- How informative do you consider the e-learning sessions presented through MOODLE platform during the Covid-19 pandemic?

1 2 3 4 5 6 7

useful — — — — — — — useless

……

Interviews

Objectives: By the end of this theme, the students will learn about

- interviews as data collection tools in social sciences;
- how to structure and organise an interview;
- the role of the interviewer.

1. Definition

A method of data collection, information or opinion gathering that specifically involves asking a series of questions. Typically, an interview represents a meeting or dialogue between people where personal and social interaction occur. However, developments in computer and information technology have resulted in other formats, for example, Internet interviews.

Interviews are used as data collection tools When

- The research covers issues that might be considered sensitive or rather personal.
- The needed data are Opinions, feelings, emotions and experiences. The nature of these means that they need to be explored in depth and in detail rather than simply reported in a word or two.
- Privileged information. Here, the justification for interviews is based on the value of contact with key players in the field who can give privileged information.

2. Main Types of Interviews:

2.1 Structured Interviews: in this format, the researcher follows a pre-prepared, elaborate ‗interview-schedule', which contains a list of questions to be covered closely with every interviewee. Structured interviews involve tight control over the format of the questions and answers. In essence, the structured interview is like a questionnaire which is administered face-to-face with a respondent. The researcher has a predetermined list of questions, to which the respondent is invited to offer limited option responses.

2.2 Unstructured Interviews: this format allows maximum flexibility to follow the interviewee in unpredictable directions, with only minimal interference from the research agenda. Unstructured interviews go further in the extent to which emphasis is placed on the interviewee‘s thoughts. The researcher‘s role is to be as intrusive as possible – to start the ball rolling by introducing a theme or topic and then letting the interviewee develop their ideas and pursue their train of thought.

2.3 Semi-Structured Interviews: this format offers a compromise between the two extremes. Although there is a set of pre-prepared guiding questions and prompts, the format is open-ended and the interviewee is encouraged to elaborate on the issues raised in an exploratory manner. With semi-structured interviews, the interviewer still has a clear list of issues to be addressed and questions to be answered. However, with the semi- structured interview the interviewer is prepared to be flexible in terms of the order in which the topics are considered, and, perhaps more significantly, to let the interviewee develop ideas and speak more widely on the issues raised by the researcher. The answers are open-ended, and there is more emphasis on the interviewee elaborating points of interest.

3. Role of Interviewer: The interviewer has a complex and multi-faceted role in the interview process, which includes the following tasks:

- *Prepare for the interview:* Since the interviewer is in the forefront of the data collection effort, the quality of data collected depends heavily on how well the interviewer is trained to do the job. The interviewer must be trained in the interview process and the survey method, and also be familiar with the purpose of the study, how responses will be stored and used, and sources of interviewer bias. He/she should also rehearse and time the interview prior to the formal study.

- *Locate and enlist the cooperation of respondents:* Particularly in personal, in-home surveys, the interviewer must locate specific addresses, and work around respondents‘ schedule sometimes at undesirable times such as during weekends. They should also be like a salesperson, selling the idea of participating in the study.
- *Motivate respondents:* Respondents often feed off the motivation of the interviewer. If the interviewer is disinterested or inattentive, respondents won‘t be motivated to provide useful or informative responses either. The interviewer must demonstrate enthusiasm about the study, communicate the importance of the research to respondents, and be attentive to respondents‘ needs throughout the interview.
- *Clarify any confusion or concerns:* Interviewers must be able to think on their feet and address unanticipated concerns or objections raised by respondents to the respondents‘ satisfaction. Additionally, they should ask probing questions as necessary even if such questions are not in the script.
- *Observe quality of response:* The interviewer is in the best position to judge the quality of information collected, and may supplement responses obtained using personal observations of gestures or body language as appropriate.

4. Conducting the Interview.

Before the interview, the interviewer should prepare a kit to carry to the interview session, consisting of a cover letter from the principal investigator or sponsor, adequate copies of the survey instrument, photo identification, and a telephone number for respondents to call to verify the interviewer‘s authenticity. The interviewer should also try to call respondents ahead of time to set up an appointment if possible. To start the interview, he/she should speak in an imperative and confident tone, such as ―I‘d like to take a few minutes of your time to interview you for a very important study,‖ instead of ―May I come in to do an interview?‖ He/she should introduce himself/herself, present personal credentials, explain the purpose of

the study in 1-2 sentences, and assure confidentiality of respondents‘ comments and voluntariness of their participation, all in less than a minute. No big words or jargon should be used, and no details should be provided unless specifically requested. If the interviewer wishes to tape-record the interview, he/she should ask for respondent‘s explicit permission before doing so. Even if the interview is recorded, the interview must take notes on key issues, probes, or verbatim phrases.

During the interview, the interviewer should follow the questionnaire script and ask questions exactly as written, and not change the words to make the question sound friendlier.

They should also not change the order of questions or skip any question that may have been answered earlier. Any issues with the questions should be discussed during rehearsal prior to the actual interview sessions. The interviewer should not finish the respondent‘s sentences. If the respondent gives a brief cursory answer, the interviewer should probe the respondent to elicit a more thoughtful, thorough response. Some useful probing techniques are:

- *The silent probe:* Just pausing and waiting (without going into the next question) may suggest to respondents that the interviewer is waiting for more detailed response.

- *Overt encouragement:* Occasional ―uh-huh‖ or ―okay‖ may encourage the respondent to go into greater details. However, the interviewer must not express approval or disapproval of what was said by the respondent.

- *Ask for elaboration:* Such as ―can you elaborate on that?‖ or ―A minute ago, you were talking about an experience you had in high school. Can you tell me more about that?‖

- *Reflection:* The interviewer can try the psychotherapist‘s trick of repeating what the respondent said. For instance, ―What I‘m hearing is that you found that experience very traumatic‖ and then pause and wait for the respondent to elaborate.

After the interview is completed, the interviewer should thank respondents for their time, tell them when to expect the results, and not leave hastily. Immediately after leaving, they should

write down any notes or key observations that may help interpret the respondent‘s comments better.

5. Strengths & Weaknesses of Interviews

The advantages of interviews are that they enable the interviewer to follow up and probe responses, motives and feelings and their potential added value is that the recording of nonverbal communications, facial expressions and gestures, for example, can enrich the qualitative aspects of the data.

The alternative types of interview are associated with separate and distinct advantages and disadvantages. Unstructured interviews where the respondent talks freely around a topic can produce rich grounded data but can be very time-consuming to analyse and the potential for bias on behalf of the interviewer might be increased. The more guided or focused the interview, generally speaking, the less time-consuming and less problematic is the analysis. This is due to the more standardized nature of the responses. However, in opting for the latter form of interview there is generally an increased likelihood that the researcher might not be asking the most significant questions or unduly structuring responses. Whilst interviews are often associated with qualitative research, they are not always adopted as the principle research method despite their potential usefulness, on practical grounds. Some research subjects may fall within categories often classified as _hard to reach groups‘, for example, the homeless or those in prison. People belonging to different social groups might also require particular or different interview techniques and skills that might deter the use of this method. Thus the appropriate use of interviews is often compromised. In reality interviews might not be feasible or where interviews are part of the research design the precise nature of the interview might be determined by striking a balance between what is practical and feasible and that which represents the ideal. There is often therefore a balance or trade-off between the ideal form that the interview might take and issues related to feasibility.

6. Pre-requisites and Basic Tenets of Interviewing

For successful implementation of the interview method, interviewers should be carefully trained. They should be honest, sincere, hardworking, and impartial and must possess the technical competence and necessary practical experience. Interviewers should not cheat. In addition, some provision should also be made in advance so that appropriate action may be taken if some of the selected respondents refuse to cooperate or are not available when an interviewer calls upon them.

In fact, interviewing is an art governed by certain scientific principles. Every effort should be made to create friendly atmosphere of trust and confidence, so that respondents may feel at ease while talking to and discussing with the interviewer. 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 any, asked by the respondent and must clear any doubt that the latter has. The interviewers approach must be friendly, courteous, conversational and unbiased. 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 track.

References

Bhattacherjee, A (2012). Social Science Research: Principles, Methods, and Practices. *USF Tampa Bay Open Access Textbooks Collection.* Book 3. http://scholarcommons.usf.edu/oa_textbooks/3

Dencombes, M. (2010). *The good research guide: for a small-scale social research projects* (4th ed.). Berkshire, England: Open University Press.

Dornyei, Z. (2007). *Research methods in applied linguistics*. London, UK : Oxford University Press.

Jupp, V. (Ed.). (2006). *The Sage Dictionary of Social Research Methods*. London: Sage Publications.

Kothari, C. R. (2004). *Research methodology: methods & techniques.* New Delhi, India: New Age International Publishers.

Practice

1. Consider the following study then do the required task

For a study on e-assessment at Algerian Universities during the Covid-19 pandemic, the following research questions are posed:

- What are the physical effects of the Covid-19 pandemic?
- What are the emotional effects of the Covid-19 pandemic?
- **How does the spread of the Covid-19 pandemic affect assessment at Algerian universities?**
- How do teachers and students cope with the daily challenges of Covid-19 pandemic?

The task

- List all the possible types of participants who might address these research questions.
- Identify probes for the question in boldface type, keeping in mind the different participants.

2. Write a short essay to account for the challenges facing researchers when they use interviews in social science research.

Observations

Objectives: By the end of this theme, the students will learn about

- observations as data collection tools in social sciences;
- how to structure and organise an observation in qualitative and quantitative studies;

1. Definition

Observations relate to a method of data collection that involves observing a group of people within a specific research field. They offer the social researcher a distinct way of collecting data. They do not rely on what people say they do, or what they say they think. They are based on the premise that, for certain purposes, it is better to observe what actually happens.

As far as research in applied linguistics is concerned, observations are generally related to classroom research. Classroom research is a broad umbrella-term for empirical investigations that use the classroom as the main research context. It examines how teaching or learning takes place.

2. When Can we Use Observations?

Observation is one way to collect primary data. Observation is a purposeful, systematic and selective way of watching and listening to an interaction or phenomenon as it takes place.

There are many situations in which observation is the most appropriate method of data collection; for example, when you want to learn about the interaction in a group, study the dietary patterns of a population, ascertain the functions performed by a worker, or study the behaviour or personality traits of an individual. It is also appropriate in situations where full and/ or accurate information cannot be elicited by questioning, because respondents either are not co-operative or are unaware of the answers because it is difficult for them to detach themselves from the interaction. In summary, when you are more interested in the behaviour than in the perceptions of individuals, or when subjects are so involved in the interaction that

they are unable to provide objective information about it, observation is the best approach to collect the required information.

3. Characteristics of Observations

• ***Direct observation***.

Unlike questionnaires or interviews which are based on what informants tell the researcher, and in contrast to documents where the researcher tends to be one step removed from the action, observations are based on direct observation of what happens.

• ***Fieldwork.***

They are based on collecting data in real-life situations – out there in the field.

The dedication to fieldwork immediately identifies observation as an *empirical* method for data collection. As a method, it requires the researcher to go in search of information, at first hand, rather than relying on secondary sources.

• ***Natural settings.***

Unlike laboratory observations, Fieldwork observations occur in situations which would have occurred whether or not the research had taken place. The whole point is to observe things as they normally happen, rather than as they happen under artificially created conditions such as laboratory experiments.

• ***The issue of perception.***

Observations recognize that the process of observing is far from straightforward. They are acutely sensitive to the possibility that researchers‘ perceptions of situations might be influenced by personal factors and that the data collected could thus be unreliable.

4. Classroom Observation

A typical data collection tool used in classroom research is ―classroom observation‖. It provides direct information rather than self-reports accounts.

4.1 Types of Classroom Observation

Classrooms can be observed differently for different purposes. Two dichotomies are usually offered to organize the different types of classroom observation.

4.1.1 "Participant" Vs. "non-participant" observation

Participant observation is when you, as a researcher, participate in the activities of the group being observed in the same manner as its members, with or without their knowing that they are being observed. The participant observer becomes a full member of the group taking part in all the activities.

For example, you might want to examine the attitudes of EFL learners towards their teachers' code switching. You can study the reactions of your classmates during several classes.

Non-participant observation, on the other hand, is when you, as a researcher, do not get involved in the activities of the group but remain a passive observer, watching and listening to its activities and drawing conclusions from this. The non-participant observer is usually not or only minimally involved in the setting.

For example, you might want to study the way grammar is taught for beginners.

As an observer, you could watch, follow and record the different activities as they are performed by attending several classes and sitting in the back of the classroom. After making a number of observations, conclusions could be drawn.

4.1.2 "Structured" Vs. "unstructured" observation

This dichotomy is similar to the quantitative-qualitative distinction in observational terms. Structured observation involves going into the classroom with a specific focus with concrete observation categories. It involves completing _an observation scheme' or _observation checklist'. A structured observation is very systematic and enables the researcher to generate numerical or qualitative data from the observations. Numerical data, in turn, facilitate the making of comparisons between settings and situations, and

frequencies, patterns and trends to be noted or calculated. The observer adopts a passive, non-intrusive role, merely noting down the incidence of the factors being studied.

Unstructured observation is less clear on what is looking for and the researcher needs to observe first what is taking place before deciding on its significance for the research. It involves completing narrative field notes (exploratory in nature).

4.2 Observation Categories

Because classroom processes are extremely varied, the range of categories that can be used is broad including:

- Teacher talk
- Body language
- Task organisation (activities, lesson planning etc.)
- Students‘ behaviour
- Classroom interaction

4.3 Observation Schemes & Observation Checklists

Also known as _observational schedules‘, observation schemes or checklists may be chosen from a number of readily available instruments, but in most cases, they will need to be adapted to the specific research focus, and classroom situation.

5. Recording Observations

There are many ways of recording observations. The selection of a method of recording depends upon the purpose of the observation. The way an observation is recorded also determines whether it is a quantitative or qualitative study. Narrative and descriptive recording is mainly used in qualitative research but if you are doing a quantitative study you would record an observation in categorical form or on a numerical scale. Keep in mind that each method of recording an observation has its advantages and disadvantages.

Narrative recording: In this form of recording the researcher records a description of the interaction in their own words. Such a type of recording clearly falls in the domain of qualitative research. Usually, a researcher makes brief notes while observing the interaction and then soon after completing the observation makes detailed notes in narrative form. In addition, some researchers may interpret the interaction and draw conclusions from it. The biggest advantage of narrative recording is that it provides a deeper insight into the interaction. However, a disadvantage is that an observer may be biased in their observation and, therefore, the interpretations and conclusions drawn from the observation may also be biased. In addition, interpretations and conclusions drawn are bound to be subjective reflecting the researcher‘s perspectives.

Using scales: At times some observers may prefer to develop a scale in order to rate various aspects of the interaction or phenomenon. The recording is done on a scale developed by the observer/researcher. The main advantage of using scales in recording observation is that you do not need to spend time on taking detailed notes and can thus concentrate on observation. On the other hand, the problems with using a scale are that it does not provide specific and in- depth information about the interaction.

6. Challenges of Observations as Data Collection Tools

The use of observation as a method of data collection may suffer from a number of problems, which is not to suggest that all or any of these necessarily prevail in every situation. But as a beginner you should be aware of these potential problems:

- When individuals or groups become aware that they are being observed, they may change their behaviour. Depending upon the situation, this change could be positive or negative - it may increase or decrease, for example, their productivity – and may occur for a number of reasons. When a change in the behaviour of persons or groups is attributed to their being

observed it is known as the Hawthorne effect. The use of observation in such a situation may introduce distortion: what is observed may not represent their normal behaviour.

- There is always the possibility of observer bias. If an observer is not impartial, s/he can easily introduce bias and there is no easy way to verify the observations and the inferences drawn from them.
- The interpretations drawn from observations may vary from observer to observer.
- There is the possibility of incomplete observation and/or recording, which varies with the method of recording. An observer may watch keenly but at the expense of detailed recording. The opposite problem may occur when the observer takes detailed notes but in doing so misses some of the interaction.

7. Advantages & Disadvantages of Observations as Data Collection Tools

Like any other data collection tool, observations have some advantages and disadvantages

Advantages

• *Direct data collection.* It directly records what people do, as distinct from what they say they do.

• *Systematic and rigorous*. The use of an observation schedule provides an answer to the problems associated with the selective perception of observers, and it appears to produce *objective* observations. The schedule effectively eliminates any bias from the current emotions or personal background of the observer.

• *Efficient*. It provides a means for collecting substantial amounts of data in a relatively *short time span*.

• *Pre-coded data*. It produces quantitative data which are pre-coded and ready for analysis.

• *Reliability*. When properly established, it should achieve high levels of reliability in the sense that two or more observers using a schedule should record very similar data.

Disadvantages

• *Behaviour, not intentions*. Its focus on overt behaviour describes what happens, but not why it happens. It does not deal with the intentions that motivated the behaviour.

• *Oversimplifies*. It assumes that overt behaviours can be measured in terms of categories that are fairly straightforward and unproblematic. This is premised on the idea that the observer and the observed share an understanding of the overt behaviour, and that the behaviour has no double meaning, hidden meaning or confusion associated with it. As such, systematic observation has the in-built potential to oversimplify; to ignore or distort the subtleties of the situation.

• *Contextual information*. Observation schedules, by themselves, tend to miss contextual information which has a bearing on the behaviours recorded. It is not a holistic approach.

• *Naturalness of the setting*. Despite the confidence arising from experience, there remains a question mark about the observer‘s ability to fade into the background. Can a researcher with a clipboard and observation schedule really avoid disrupting the naturalness of the setting?

References

Dencombes, M. (2010). *The good research guide: for a small-scale social research projects* (4th ed.). Berkshire, England: Open University Press.

Dornyei, Z. (2007). *Research methods in applied linguistics*. London, UK : Oxford University Press.

Kothari, C. R. (2004). *Research methodology: methods & techniques.* New Delhi, India: New Age International Publishers.

Kumar, R. (2011). *Research methodology: a step-by-step guide for beginners* (3rd ed.). London, UK: Sage Publications.

Practice

Consider the following topic then do the required task

Teachers‘ feedback on students‘ oral errors.

The task: Singly or in pairs attend some language classes. You can use your upcoming classes or online classes. The analysis will be similar. Using whatever data you can get do the following:

- A narrative analysis of all the observed classes by describing briefly what went on in each segment of the lesson.
- Fill in the following table

Example of teacher error correction	**Type of correction**	**In-class instances**	**%**
……	……	……	……
……	……	……	……
……	……	……	……

Documents

Objectives: By the end of this theme, the students will learn about

- how to compile documentary data for research purposes;
- the different types of documentary data;
- the criteria for validity of documentary data.

1. Documentary Data

So far we have presented the primary sources of data collection where the needed data are collected either by the researcher. There are occasions when the data have already been collected by someone else and the researcher needs only to extract the required information for the purpose of their study. This is what is called documentary data or secondary documentary data.

Many types of documents fall in the category of documentary data. This includes written sources, visual sources (pictures, artefacts) and sounds (music).

Both qualitative and quantitative research studies use secondary sources as a method of data collection. In qualitative research you usually extract descriptive (historical and current) and narrative information and in quantitative research the information extracted is categorical or numerical.

2. Sources of Documentary Data

Documents can be treated as a source of data in their own right as an alternative to questionnaires, interviews or observations. Here are some sources of documentary data

- ***Government publications and official statistics***

At first glance government publications and official statistics would seem to be an attractive proposition for the social researcher.

- ***Newspapers and magazines***

The ‗press' provides a potentially valuable source of information for research purposes. One reason for this is that newspapers and magazines can supply good, up-to-date information.

- ***Records of meetings***

- ***Letters and memos***

Private correspondence between people can be used for research purposes. This can take the form of memos sent between people at work or even personal letters exchanged between people. The more private the correspondence, of course, the more difficult it is for the researcher to gain access to the documents.

- ***Diaries***

As a source of documentary data, diaries are written by people whose thoughts and behaviour the researcher wishes to study. For research purposes such diaries are important in terms of recording things that have already happened.

- ***Website Pages and the Internet***

Documents, as a form of data, include material obtained via the Internet. In a sense, the medium through which the document is obtained is not the issue. We can read newspapers in their original paper form, or we can read them on microfiche or via a CD-ROM. Equally, we can obtain documents through website pages or email, and this does not, of itself, have a bearing on the use of the output as a document for research. Websites, though, can be treated as documents in their own right. Home pages, etc. can be treated as a form of document, and their content analysed in terms of the text and images they contain. In effect, they can be treated like online documents.

- ***Images***

Visual images can be used as data in their own right – distinct from text, numbers or sounds as a potential source of research information. Just like other documents, visual images can prove to be valuable for the purposes of the research in terms of:

• The factual information they contain;

• How they represent things (the symbolism and hidden meanings communicated through the document or image).

There is a wide variety of visual images that could be used. _Still‘ images, such as photographs lend themselves to analysis and reproduction alongside more conventional text- based research, e.g. in printed journals or academic dissertations. In addition, _moving images‘ and even _three-dimensional objects‘ can be sources for social science research.

3. Checking the Validity of Documentary Data

For the purposes of research, documentary sources should never be accepted at face value. Their validity is something that needs to be established rather than being taken for granted. According to Platt (1981) and Scott (1990), documents need to be evaluated in relation to four basic criteria.

Authenticity

Is it the genuine article? Is it the real thing? Can we be satisfied that the document is what it purports to be – not a fake or a forgery?

Representativeness

Is the document typical of its type? Does it represent a typical instance of the thing it portrays? Is the document complete? Has it been edited? Is the extract treated _in context‘?

Meaning

Is the meaning of the words clear and unambiguous? Are there hidden meanings?

Does the document contain argot and subtle codes? Are there meanings which involve _what‘s left unsaid‘ or _reading between the lines‘?

Credibility

Is it accurate? Is it free from bias and errors? This will depend on factors like:

• What purpose was the document written for?

• Who produced the document? What was the status of the author and did he or she have a particular belief or persuasion that would colour the version of things?

• If it reports on events, was it a first-hand report directly witnessed by the author? How long after the event was the document written?

• When was the document produced? In what social context and climate?

References

Dencombes, M. (2010). *The good research guide: for a small-scale social research projects* (4th ed.). Berkshire, England: Open University Press.

Kumar, R. (2011). *Research methodology: a step-by-step guide for beginners* (3rd ed.). London, UK: Sage Publications.

Practice

- Write a 20-line essay to account for the advantages and the disadvantages of documentary research.
- Suggest a research topic where documentary data are most appropriate.

Sampling

Objectives: By the end of this theme, the students will learn about

- sampling and its importance in scientific research;
- some sampling procedures;
- criteria for good samples.

1. Definition

Sampling refers to techniques used to select groups from a wider population. This is done because it is not usually possible to include whole populations in research, for example as a result of time or financial constraints. Whom we study and how we choose to study them is linked to the theoretical context of the research and the hypotheses or aims. Sampling theory is therefore based on the assumption that inferences can be made, or conclusions drawn about the population from which the sample is taken. Sampling is an important element in research planning and design.

2. Basic Concepts & Distinctive Features

- ***Population:*** in sampling, the term _population‘ has a very specific meaning and refers to the group of people, or other units of analysis, whom the study is about. The population as defined will depend upon the research aims and theoretical context.
- ***The sampling frame:*** may be defined as the listing of all units in the working population from which the sample will be selected. For example, if we are going to undertake a survey of young learners experiences of EFL reading skills development, young people‘s experiences of bullying, we could decide to define the working population as all young learners between the ages of 6 and 10 attending public and private schools in a particular city. The lists of the learners would comprise the sampling frame. A sampling frame can be any listing, for example, members of an organization, addresses (the post office address file) or an electoral register.

- ***The sampling unit:*** It is the unit of study. Whilst a unit is often an individual, it could also be groups of people. Advertisements, newspapers or television programmes can also be sampling units, on which content or other forms of textual analysis could be undertaken. The sample may be defined as the segment of the population that is selected for the research.

3. Some Sampling Procedures

3.1 Random Sampling

Random or probability sampling refers to an approach where each element of the population has an equal and known chance of being selected for inclusion in the sample. It involves selecting members of the population on a completely random basis. The selection is based on chance, thus minimizing the effects of any subjective factors.

In simple random sampling, each member of the population under study has an equal chance of being selected and the probability of a member of the population being selected is unaffected by the selection of other members of the population, i.e. each selection is entirely independent of the next. The method involves selecting at random from a list of the population (a sampling frame) the required number of subjects for the sample. This can be done by drawing names out of a hat until the required number is reached.

3.2 Stratified Random Sampling

The population is divided into groups, or _strata‘, and a random sample of a proportionate size is selected from each group.

Stratified sampling involves dividing the population into homogenous groups, each group containing subjects with similar characteristics. For example, group A might contain males and group B, females. In order to obtain a sample representative of the whole population in terms of sex, a random selection of subjects from group A and group B must be taken. If

needed, the exact proportion of males to females in the whole population can be reflected in the sample.

The researcher will have to identify those characteristics of the wider population which must be included in the sample, i.e. to identify the parameters of the wider population. This is the essence of establishing the sampling frame.

3.3 Convenience Sampling

Members of the target population are selected for the purpose of the study if they meet certain criteria. It is also called, accidental or opportunity sampling. It involves choosing the nearest individuals to serve as respondents and continuing that process until the required sample size has been obtained.

Captive audiences such as students or student teachers often serve as respondents based on convenience sampling. The researcher simply chooses the sample from those to whom they have easy access. As it does not represent any group apart from itself, it does not seek to generalize about the wider population; for a convenience sample that is an irrelevance.

3.4 Quota Sampling

Quota sampling has been described as the non-probability equivalent of stratified sampling (Bailey, 1978). Like a stratified sample, a quota sample strives to represent significant characteristics (strata) of the wider population; unlike stratified sampling it sets out to represent these in the proportions in which they can be found in the wider population. For example, suppose that the wider population (however defined) were composed of 55 per cent females and 45 per cent males, then the sample would have to contain 55 per cent females and 45 per cent males; if the population of a school contained 80 per cent of students up to and including the age of 16, and 20 per cent of students aged 17 and over, then the sample would have to contain 80 per cent of students up to the age of 16 and 20 per cent of students aged 17 and above.

A quota sample, then, seeks to give proportional weighting to selected factors (strata) which reflects their weighting in which they can be found in the wider population.

4. The Sample Size

A question that often plagues novice researchers is just how large their samples for the research should be. There is no clear-cut answer, for the correct sample size depends on the purpose of the study and the nature of the population under scrutiny. However it is possible to give some advice on this matter. Thus, a sample size of thirty is held by many to be the minimum number of cases if researchers plan to use some form of statistical analysis on their data.

Of more import to researchers is the need to think out in advance of any data collection the sorts of relationships that they wish to explore within subgroups of their eventual sample. The number of variables researchers set out to control in their analysis and the types of statistical tests that they wish to make must inform their decisions about sample size prior to the actual research undertaking.

Sample size is also determined to some extent by the style of the research. For example, a survey style usually requires a large sample, particularly if inferential statistics are to be calculated. In an ethnographic or qualitative style of research it is more likely that the sample size will be small.

Sample size might also be constrained by other factors such as time, money, stress, administrative support, the number of researchers, and resources.

Borg and Gall (1979:195) suggest that, as a general rule, sample sizes should be large where:

- There are many variables;
- Only small differences or small relationships are expected or predicted;
- The sample will be broken down into subgroups;
- The sample is heterogeneous in terms of the variables under study;

- Reliable measures of the dependent variable are unavailable.

References

Dornyei, Z. (2007). *Research methods in applied linguistics*. London, UK : Oxford University Press

Cohen, L., Manion, L., & Morrison, K. (2005) *Research Methods in Education* (5th ed.). London,UK: RoutledgeFalmer.

Jupp, V. (Ed.). (2006). *The Sage Dictionary of Social Research Methods*. London: Sage Publications

Practice

Consider the following research topics, and then do the required task.

- The Use of Crossword Puzzles as a Teaching Technique to Enhance Learners‘ English Vocabulary Learning: The case of First Year Private Middle School Pupils
- Students‘ Attitudes Towards the Effect of Using Blogs to Enhance their Writing Skill in EFL: The Case of Master I Language and Communication at MMUTO.
- Metaphor Production in EFL Master's Dissertations at Mouloud Mammeri University :A Corpus-Based Study
- The Effective Role of Rewards in Motivating Students to Avoid Spelling Errors in the Department of English at Mouloud Mammeri University of Tizi Ouzou: The Case of First-Year Students
- A social Semiotic Analysis of Gender Roles in the Representation of Gender in Advertisements: Case Study of Gender Representation in Algerian TV commercials

The task

- Suggest an appropriate research design
- Suggest a data collection tool
- Which sampling procedure do you think will fit the objectives of the study?

Data Analysis

Objectives: By the end of this theme, the students will learn about

- the various tools for analysing qualitative and quantitative data;
- As a researcher, how to opt for an appropriate data analysis tool;
- the stages and the procedure of data analysis.

1. What is Data Analysis?

The purpose of analysing something is to gain a better understanding of it through a detailed examination of the thing that is being studied. It has several aims:

• to *describe* constituent elements of the corpus;

• to *explain* how it works; or

• to *interpret* what it means.

Interpretation, like explanation, is interested in patterns and regularities that lie behind the occurrence of social phenomena. The difference is that interpretive researchers see their analysis as a matter of providing an understanding rather than providing something that is an objective, universal truth. Interpretivists are still interested in gaining knowledge about how and why things happen,

There are many kinds of analysis the social researcher can use in order to describe, explain or interpret the data. In a nutshell, the distinction between the approaches centres on the fact that:

• Quantitative research uses *numbers* as the unit of analysis;

• Qualitative research uses *words or visual images* as the unit of analysis.

2. Quantitative Data Analysis

Quantitative data is analysed by using a set of mathematical procedures, called statistical procedures. The selection of the exact procedure depends on the research question and the type of the collected data.

2.1 Some Sources of Quantitative Data

Quantitative data take the form of numbers. They are associated primarily with strategies of research such as surveys and experiments, and with research methods such as questionnaires and observation. These are not, however, the only sources of quantitative data. For example, the use of content analysis with texts (such as interview transcripts) can also produce numerical data. The kind of research method used, then, is *not* the crucial thing when it comes to defining quantitative data. It is the nature of the data that the method produces that is the key issue. It is important to bear this point in mind and to recognize that quantitative data can be produced by a variety of research methods.

2.2 Some Types of Quantitative Data

Nominal data

Nominal data come from counting things and placing them into a category.

Ordinal data

Like nominal data, ordinal data are based on counts of things assigned to specific categories, but, in this case, the categories stand in some clear, ordered, ranked relationship. The categories are ‗in order'. This means that the data in each category can be compared with data in the other categories as being higher or lower than, more or less than, etc., those in the other categories. The most obvious example of ordinal data comes from the use of questionnaires in which respondents are asked to respond on a five-point scale

Continuous data

Contrasted with this there are certain kinds of data which, for practical purposes, are inevitably measured ‗to the nearest unit' simply because they do not come in neat, discrete chunks. Such things are measured to the nearest small unit because, as a variable, they are *continuous*. People's height, age and weight are obvious examples here.

2.3 Stages of Quantitative Data Analysis

Coding the data

The raw data with which the social researcher works sometimes occur _naturally‘ in the form of numbers. This is convenient. However, on many occasions the researcher starts off with material in the form of words or pictures and needs to transform the material from this format into the only format suitable for quantitative analysis: numbers. This involves a process of _coding‘ the data.

Coding, in essence, entails the attribution of a number to a piece of data, or group of data, with the express aim of allowing such data to be analysed in quantitative terms.

Grouping the data

The first stage in the analysis of quantitative data is to organize the raw data in a way that makes them more easily understood.

Statistical analysis

Descriptive and inferential statistics

Validating the data

The analysis of quantitative data should include efforts to ensure that, as far as possible:

• the data have been recorded accurately and precisely;

• the data are appropriate for the purposes of the investigation (we must feel assured that we are measuring the right thing);

• the explanations derived from the analysis are correct.

2.4 Descriptive & Inferential Statistics

Statistics can be divided into two principal areas, _descriptive statistics‘ and _inferential statistics‘.

Descriptive statistics are used to summarize sets of numerical data in order to conserve time and space. They offer a tidy way of presenting the data we have. They are useful, for example, to describe the achievement of a particular class of learners. The important thing, however, is

to note that these statistics do not allow drawing any general conclusions that would go beyond the sample.

If any remarkable difference among groups of participants is noticed (e.g. girls & boys), inferences cannot be drawn based on descriptive statistics. In order to show that the difference is significant, researchers need to employ inferential statistics.

Broadly speaking, inferential statistics are the same as descriptive statistics except that the computer also tests whether the results that we observed in our sample are powerful enough to generalize to the whole population.

Inferential statistics are the statistical procedures that are used to reach conclusions about associations between variables. They differ from descriptive statistics in that they are explicitly designed to test hypotheses. Numerous statistical procedures fall in this category, most of which are supported by modern statistical software such as SPSS and SAS. This chapter provides a short primer on only the most basic and frequent procedures; readers are advised to consult a formal text on statistics or take a course on statistics for more advanced procedures.

2.5 SPSS

SPSS stands for Statistical Package for the Social Sciences One of the major computer packages for analysing quantitative data.

3. Qualitative Data Analysis

Most qualitative data is transformed into a textual form. Thus, qualitative data analysis is inherently a language-based analysis.

3.1 Some Types of Qualitative Data

Qualitative data take the form of words (spoken or written) and visual images (observed or creatively produced). They are associated primarily with strategies of research such as case studies, grounded theory, ethnography and phenomenology, and with research methods such

as interviews, documents and observation. Qualitative data, however, can be produced by other means. For example, the use of open-ended questions as part of a survey questionnaire can produce answers in the form of text – written words that can be treated as qualitative data. The kind of research method used, then, does *not* provide the defining characteristic of qualitative data.

3.2 Stages of Data Analysis

The analysis of research data tends to follow a process involving five stages (adapted from Creswell and Clarke (2011))

1. Data preparation

- Cataloguing the text or visual data
- Preparation of data and loading to software (if applicable)
- Transcribing the text

2. Initial exploration of the data

- Look for obvious recurrent themes or issues
- Add notes to the data.
- Write memos to capture ideas

3. Analysis of the data

- Code the data
- Group the codes into categories or themes
- Comparison of categories and themes
- Look for concepts (or fewer, more abstract categories) that encapsulate the categories

4. Presentation and display of the data

- Written interpretation of the findings
- Illustration of points by quotes and pictures
- Use of visual models, figures and tables

5. Validation of the data

- Data and method triangulation
- Comparison with alternative explanations

3.3 Some Tools of Qualitative Data Analysis

3.3.1 Qualitative Content Analysis

It is an approach to text data analysis which is used for the objective of interpreting data. Its core principle is to conceptualise the process of assigning categories to text passages as a qualitative interpretive act. Three approaches to QCA are to be found in the literature, namely conventional, directed, and summative.

Conventional Content Analysis is used when the theoretical framework is limited. So, researchers analyse the collected data without predetermined categories. The categories emerge from the explored data. It is generally referred to as inductive category development.

Unlike Conventional Content Analysis, Directed Content Analysis is a structured process of data analysis. Researchers identify predetermined coding categories using existing theoretical background. The goal of a directed approach to content analysis is to validate or extend conceptually a theoretical framework or theory.

The third approach is called Summative Content Analysis. Researchers using summative content analysis go through two stages. The first stage consists of identifying and quantifying certain words or content in a text. The second stage relates to what is called in the literature latent content analysis referring to the process of interpreting and understanding the contextual use of the identified words.

3.3.2 Discourse Analysis

Detailed exploration of political, personal, media or academic _talk‘ and _writing‘ about a subject, designed to reveal how realities are organized, carried and reproduced in particular ways and through particular institutional practices.

Discourse analysis is a generic term covering a heterogeneous number of theoretical approaches and analytical constructs. It derives, in the main, from linguistics, semiotics, social psychology, cultural studies and post-structural social theory. It is primarily a qualitative method of _reading' texts, conversations and documents which explores the connections between language, communication, knowledge, power and social practices. In short, it focuses upon the meaning and structure (whether overt or hidden) of acts of communication in context.

Discourse analysis is an approach to the analysis of qualitative data that focuses on the implied meaning of the text or image rather than its explicit content. It is based on the premise that words and pictures are used not simply to depict reality; they are used instead as a way of creating and sustaining reality. Discourse analysis involves a _deconstruction' of the data in order to expose the ways in which text or visual images do the work of creating or sustaining particular aspects of social life. This approach is familiar within the fields of social psychology, sociology and linguistics and is used in relation to a wide range of social research areas including, for example, cultural studies, marketing (especially advertising), education and feminist studies.

The aim of discourse analysis is to _unpack' the text or image in order to reveal

- What people are trying to do through the talk, text or image?
- What background assumptions are needed in order for this to be achieved?

3.3.3 Conversation Analysis

Conversation analysis is often considered to be a variant of discourse analysis because it focuses attention on how things get done through language use. In this instance, researchers look at naturally occurring talk and the way that routine aspects of everyday life get accomplished through language.

Conversation analysis refers to a detailed study of the methods used by participants to achieve social practices such as greetings, giving directions and telling stories in a variety of contexts (formal, informal). The term ‗conversation' does not refer so much to a given type of speech (a genre) as to the idea of ‗talk-in-interaction' as a social activity.

Conversation analysts use audio and/or video recordings of carefully transcribed interaction. Recording and transcribing data drawn from ‗natural' situations (that is, without intervention by the researcher) is a methodological advantage for social studies. It guarantees a more reliable corpus than note taking. It enables the analyst to study the same fragment over and over and makes it easier to share interpretations with other researchers. There are no a priori categories or hypotheses involved in the process of analysing the conversational data since they are themselves ‗research-generating'.

3.3.4 The Analysis of Image-based Data

The kind of analysis used for image-based data depends on the purposes for which the data were collected. Broadly, images are used for either, or both, of two reasons:

• For the factual information they contain;

• For the cultural significance and symbolic meaning that lie behind their content.

There are various strands to the analysis of visual images. Without becoming embroiled in the detail of the differences, it is perhaps possible to identify three elements to the analysis of image-based data:

• The image itself: contents, genre, styles;

• The producer: intentions and context (by whom, when, under what circumstances, why, the intention of the creator);

• The viewer: interpretation and context.

References

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.

Dencombes, M. (2010). *The good research guide: for a small-scale social research projects* (4th ed.). Berkshire, England: Open University Press.

Dornyei, Z. (2007). *Research methods in applied linguistics*. London, UK : Oxford University Press.

Jupp, V. (Ed.). (2006). *The Sage Dictionary of Social Research Methods*. London: Sage Publications

Mayring, P. (2014). *Qualitative content analysis theoretical foundation, basic procedures and software solution*. Retrieved from http://nbn-resolving.de/urn:nbn:de:0168-ssoar-395173.

Practice

Work in pairs or groups to discuss compare qualitative and quantitative data analysis tools.

Then,

- Write a 20-line essay to account for the differences lying between Quantitative and Qualitative data analysis.
- Write a 20-line essay to account for the advantages and disadvantages of quantitative and qualitative analysis

Ethics in Research

Objectives: By the end of this theme, the students will learn about

- meaning of ethics in social science research;
- some Ethical Principles in Scientific Research

1. Definition

Ethics is defined by Webster‘s dictionary as conformance to the standards of conducts of a given profession or group. Such standards are often defined at a disciplinary level.

Social scientists generally have a responsibility not only to their profession in its search for knowledge and quest for truth, but also for the subjects they depend on for their work. Whatever the specific nature of their work, social researchers must take into account the effects of the research on participants, and act in such a way as to preserve their dignity as human beings.

Indeed, ethics has been defined as: a matter of principled sensitivity to the rights of others. Being ethical limits the choices we can make in the pursuit of truth. Ethics say that while truth is good, respect for human dignity is better.

2. Some Ethical Principles of Scientific Research

Here are some ethical behaviours that are widely accepted within the scientific community

Voluntary participation and harmlessness

Subjects in a research project must be aware that their participation in the study is voluntary, that they have the freedom to withdraw from the study at any time without any unfavorable consequences, and they are not harmed as a result of their participation or non-participation in the project.

Anonymity and confidentiality

To protect subjects‘ interests and future well-being, their identity must be protected in a scientific study. This is done using the dual principles of anonymity and confidentiality.

Anonymity implies that the researcher or readers of the final research report or paper cannot identify a given response with a specific respondent.

Disclosure

Usually, researchers have an obligation to provide some information about their study to potential subjects before data collection to help them decide whether or not they wish to participate in the study. For instance, who is conducting the study, for what purpose, what outcomes are expected, and who will benefit from the results.

Analysis and reporting

Researchers also have ethical obligations to the scientific community on how data is analyzed and reported in their study. The results of the study should be reported as they are.

References

Kumar, R. (2011). *Research methodology: a step-by-step guide for beginners* (3rd ed.). London, UK: Sage Publications.

Bhattacherjee, A. (2012). *Social science research: principles, methods, and practices* (2nd ed.). *USF Tampa Bay Open Access Textbooks Collection.* Book 3. [http://scholarcommons.usf.edu/oa_textbooks/3]

Cohen, L., Manion, L., & Morrison, K. (2005) *Research Methods in Education* (5th ed.). London,UK: Routledge Falmer.

Kalof, L., Dan, A., & Dietz, T. (2008). *Essentials of Social Research*. London, UK: Open University Press

Practice

Participant observation can pose particular ethical problems for the researcher.

Write a 20-line essay to discuss the ethical issues that researches face when conducting participant observation studies.

Research Proposal

Objectives: By the end of this theme, the students will learn about

- the purpose of a research proposal in quantitative and qualitative research;
- how to structure and organise a research proposal.

1. What is a Research Proposal?

Research proposals play an important part in the students‘ lives. It is the most important step in the whole process. It is often the key element to the successful thesis or dissertation.

It informs your potential supervisor or about your conceptualisation of the total research process that you propose to undertake so that they can examine its validity and appropriateness. You need to write a research proposal whether your research study is quantitative or qualitative and in both cases you use a similar structure.

A research proposal is an overall plan, scheme, structure and strategy designed to obtain answers to the research questions or problems that constitute your research project. A research proposal should outline the various tasks you plan to undertake to fulfil your research objectives, test hypotheses (if any) or obtain answers to your research questions. It should also state your reasons for undertaking the study.

2. Sections of a Proposal

Below is a list of the different sections that are often included in research proposals.

Title

At this early stage, you need only provide a working title. You can decide on the exact wording for your title when you are nearer to completing your dissertation.

Overall Purpose/ Introduction

The introduction provides necessary background information to your study and provides readers with some sense of your overall research interest. It presents a clear and concise statement of the overall purpose of the research.

Relevant Background Literature

- Describe the broad foundations of your study, including some references to existing literature and/or empirically observable situations. You need to provide sufficient background for readers to understand where your study is coming from.
- To demonstrate the relationship between the proposed study and what has already been done in the particular area including:

- What conclusions were reached in this previous research, by whom and when;
- Whether these conclusions are in agreement or conflict with each other;
- The main issues or controversies that surrounded the problem.
- *How* other scholars have written about your topic (in addition to *what* they have written).
- The range of theories scholars use to analyze their primary materials or data
- How other scholars connect their specific research topics to larger issues, questions, or practices within the field.
- The best methodologies and research techniques for your particular topic

- To indicate the gap that the study will fill.

Statement of the Problem

Some proposals start with the statement of the problem, rather than a more general introduction. Regardless of placement, at some point you need to clearly identify the problem or knowledge gap that your project is responding to. You need to provide an explicit statement of what the study will investigate. This section should:

- Answer the question: ―What is the gap that needs to be filled?‖ and/or ―What is the problem that needs to be solved?‖
- Limit the variables you address in stating your problem or question.

Definitions of Concepts

You need to provide the meaning of the key terms that have been used in the research question (s).

Research Methodology

This section is essential to most good research proposals. It includes a description of the general means through which the goals of the study will be achieved: methods, materials, procedures, tasks, etc.

Significance/ Implications

You need to say why the study is worth carrying out. Some proposals require a separate section stating the significance of the study. A clear statement of significance may:

- Discuss the methodological and/or theoretical contribution you anticipate making to existing knowledge in your (sub) field.
- State the practical and/or theoretical importance of the problem and/or objectives of your study, given current knowledge and practices.
- Explain the usefulness or benefits of the study.

Overview of Chapters

Some proposals also include a brief description of relevant chapters.

References

To provide detailed references and bibliographic support for the proposal.

Appendix

To provide example of materials that might be used, or adapted in the study.

References

Kumar, R. (2011). *Research methodology: a step-by-step guide for beginners* (3rd ed.). London, UK: Sage Publications.

Paltridge, B. & Starfield, S. (2007). *Thesis and dissertation writing in a second language a handbook for supervisors*. London: Routledge

Practice

Consider the following fields of research and do the tasks below

Motivation, Attitudes

a. Suggest a research topic for ONE field of research.

.....

.....

.....

b. Formulate a research problem. (2 pts)

- .....

.....

.....

c. Suggest data collection and data analysis tools appropriate

.....

.....

.....

d. Identify two variables to be the focus of the study.

.....

.....

Reference List

Ammour, K. (2021). Developing Elementary EFL Learners‘ Procedural Knowledge and Strategic Awareness in Reading Classes during the Covid-19 Pandemic: Algerian Teachers‘ Challenges. *Arab World English Journal (AWEJ) Special Issue on Covid 19 Challenges* (1) 127-135. DOI: https://dx.doi.org/10.24093/awej/covid.9

Bhattacherjee, A. (2012). *Social science research: principles, methods, and practices* (2nd ed.). *USF Tampa Bay Open Access Textbooks Collection.* Book 3. [http://scholarcommons.usf.edu/oa_textbooks/3]

Biggam, J. (2008). *Succeeding with your master"s dissertation a step-by-step handbook.* Berkshire, England: Open University Press.

Brown, J.D. & Rodgers, T.S. (2002). *Doing second language research*. Oxford: Oxford University Press.

Brown, J.D. (1998). *Understanding research in second language learning.* Cambridge: Cambridge University Press.

Cohen, L., Manion, L., & Morrison, K. (2005) *Research Methods in Education* (5th ed.). London,UK: Routledge Falmer.

Creswell, J. W. (2007). *Qualitative inquiry& research design Choosing among five approaches* (2nd ed.). London, UK: Sage Publications.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.

Dencombes, M. (2010). *The good research guide: for a small-scale social research projects* (4th ed.). Berkshire, England: Open University Press.

Dornyei, Z. (2007). *Research methods in applied linguistics*. London, UK : Oxford University Press.

Duff, P. A. (2008). *Case study research in applied linguistics.* New York, USA: Lawrence Erlbaum Associates.

Glasow, P. A. (2005). *Fundamentals of Survey Research Methodology.* Washington C3 Center.

Jupp, V. (Ed.). (2006). *The Sage Dictionary of Social Research Methods*. London: Sage Publications.

Kalof, L., Dan, A., & Dietz, T. (2008). *Essentials of Social Research*. London, UK: Open University Press.

Kothari, C. R. (2004). *Research methodology: methods & techniques.* New Delhi, India: New Age International Publishers.

Kumar, R. (2011). *Research methodology: a step-by-step guide for beginners* (3rd ed.). London, UK: Sage Publications.

Marczyk, G., DeMatteo, D., & Festinger, D. (Eds.) (2005). *Essentials of research design and methodology*. Hoboken, NJ: John Wiley & Sons.

May, T. (2001). *Social research issues, methods and process* (3rd ed.). Buckingham · Philadelphia: Open University Press

Mayring, P. (2014). *Qualitative content analysis theoretical foundation, basic procedures and software solution*. Retrieved from http://nbn-resolving.de/urn:nbn:de:0168-ssoar-395173.

Paltridge, B. & Starfield, S. (2007). *Thesis and dissertation writing in a second language a handbook for supervisors*. London: Routledge

Ruane, J. M. (2005). *A Guide to Social Science Research.* Maiden, USA: BLACKWELL PUBLISHING.

Schwartz-Shea, P., & Yanow, D. (2012). *Interpretive research design: concepts and processes.* New York: Routledge

Appendices

Appendix A: Answer Key

1. Fundamentals of Scientific Research

Observation	Lockdown and school closure have a crucial impact on learners' learning habits and teachers' teaching practices.
Research question/ objective of the study	to explore the teachers' challenges while implementing a reading strategy-based instruction for beginners during the Covid-19 pandemic
Hypothesis	Teachers experience many difficulties with developing learners' procedural knowledge and strategic awareness in EFL reading classes.
Experiment	Classroom observation and structured interviews were used to collect data.
Analysis	The collected data were analysed through qualitative content analysis.
Conclusion	- Most teachers are aware of the importance of reading strategy-based instruction. However, they do not teach them systematically or consistently. - lack of targeted teacher training, time constraints, and disregard of metacognitive instruction are likely to be obstacles to the efficient implementation of reading strategy-instruction - The results imply a need for a revision of teachers' professional development programs and a re-consideration of the elementary EFL courses.

2. Positivism & Interpretivism

	Positivism	Interpetivism
Goal	Filling knowledge gap	The way cultural variations shape reality
Ontology	Objective reality	No single reality. Reality is different from one context to another
Epistemology	empiricism	interpretation
Research Approach	deductive	inductive
Research Design	Fixed design	Flexible design
Generalisations	One could generalise	One could not generalise

3. Features of Quantitative & Qualitative Research

	Quantitative Research	***Qualitative Research***
Philosophy	Realist epistemology/ positivism	Interpretivism
Data	Durations, counts, scores Non-numerical values are converted to numbers	Language, images, cultural artifacts
Analysis	Descriptive and inferential statistics	Interpretation of social phenomena
Results	numbers	Subjective meanings
Types of studies	Experimental, surveys.	Interviews, observations
Researcher's role	No intervention	To understand phenomena from the perspective of the participants.

4. Strengths & Weaknesses of Quantitative and Qualitative Research

Quantitative Method

Strengths	***weaknesses***
- Focus on facts - Valid measures of the variables - Statistical analysis - To generalize beyond the sample - Experimentation - Systematic & rigorous - Tightly controlled	- neglect social meanings - individuals are neglected - no place for participants as agents - some constructs cannot be investigated outside social interaction - reductionist in terms of its generalizations - circumstances are not taken into consideration

Qualitative Method

Strengths	***weaknesses***
- no single objective 'truth' about the world - critical perspectives to research - exploratory nature - useful for making sense of highly complex situations - flexibility: when things go wrong qualitative methods enable us to accommodate the changes	- Results are subjective and not easy to replicate - Validity - Reliability - Representativeness - Time-consuming - The results of the research are highly related to the competence with which the analysis is carried out.

5. Advantages and Disadvantages of Case Study Research

Advantages of Case Study Research	*Disadvantages of Case Study Research*
- Thick description, thorough analysis and triangulation. - Through exploring various cases, new areas of research can be opened. - Unique and atypical cases - Longitudinal research - Contextualized research: authentic interpretation of the phenomenon of interest - case research can be used for either theory building or theory testing - They provide insights into other, similar situations and cases, thereby assisting interpretation of other similar cases. - They can be undertaken by a single researcher without needing a full research team.	- Generalization: it may be difficult to generalize inferences from case research to other contexts or other organizations. - Ethics: especially difficulties protecting the anonymity and privacy of case study participants. - The quality of inferences derived from case research depends heavily on the integrative powers of the researcher. An experienced researcher may see concepts and patterns in case data that a novice researcher may miss. - They are not easily open to cross-checking; hence they may be selective, biased, personal and subjective.

6. Advantages and Disadvantages of Survey Research

Advantages of Survey Research	*Disadvantages of Survey Research*
- Its content is social. - Surveys produce a structured data set in the form of a variable-by-case grid. - Survey analysis is based on systematically comparing cases and examining variation and correlation between variables. - Social surveys can provide a relatively efficient method for collecting information from a large number of cases	- Survey research explores phenomena can through subjective meaning of the participants. - Survey research ignores the context in which the behaviour occur. - surveys rely on imposing external explanations for behaviour and ignores the intentional and subjective component

7. Advantages and Disadvantages of Experimental Research

Strengths of Experimental Research	*Weaknesses of Experimental Research*
- Validity - Scientific method	- practical considerations - ethical issues - Methodological concern: you cannot control all the factors that are likely to influence the results.

8. Questionnaires

- What do you think about the UK's membership of the European Union?

A specific open-ended item

- Please list the issues you feel are most important in relation to the UK's membership of the European Union.

Open-ended A list

- Have you travelled from the UK to another European Union country in the past 12 months? Yes/No

Closed-ended 'yes/no' question

- European unity carries economic advantages which outweigh the political disadvantages.

  a. Strongly agree

  b. Agree

  c. Neither agree nor disagree

  d. Disagree

  e. Strongly disagree

Closed-ended Likert scale

- Which ONE of the following list of European countries do you feel has the strongest economy?

  - Germany
  - France
  - Spain
  - Greece

Multiple Choice Question

- From the following list of European countries choose the THREE which you feel have the strongest economies and put them in rank order:

  Spain UK Belgium Netherlands

  Ireland France Germany Italy

  Spain UK Belgium Netherlands

Rank order

- Membership of the European Union is a good thing for the UK.

Progress towards European unity is:

Useless ---------- useful

the semantic differential

9. Ethical issues in observation studies

Participant observation can pose particular ethical problems for the researcher:

- If 'total' participation is used, then those being studied will not be aware of the research or their role in it. They can hardly give 'informed consent'. The justification for such covert research cannot depend on consent, but draws instead on two other arguments. First, if it can be demonstrated that none of those who were studied suffered as a result of being observed, the researcher can argue that certain ethical standards were maintained. Second, and linked, if the researcher can show that the identities of those involved were never disclosed, again there is a reasonable case for saying that the participant observation was conducted in an ethical manner.
- Whichever variant of participant observation is used, there is the possibility that confidential material might 'fall into the hands' of the researcher due to the closeness and intimacy of the researcher's role vis-à-vis those being researched.
- Things might get revealed as a result of the trust and rapport developed between the researcher and those being observed. This could be true for any of the variants of participant observation.

Appendix B: Examination Templates

First-semester Examination

1. Write a coherent essay to account for four differences that lie between quantitative and qualitative studies. Then illustrate with one example for each. (12 pts)

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

2. Consider the following fields of research and do the tasks below

Foreign Language Learning; English for Specific Purposes; Psycholinguistics; Discourse Analysis; Multimodality; Sociolinguistics.

a. Suggest a research topic for ONE field of research. (2 pts)

.....

.....

b. Formulate a research problem. (2 pts)

- .....

.....

c. Articulate a directional and a non-directional hypotheses. . (2 pts)

- .....

.....

d. Identify one variable to be the focus of the study. Categorize it as dependent or independent. (2 pts)

.....

.....

All the best…

Second-semester Examination

1. Write a coherent essay to explain the differences that lie between 'Qualitative Content Analysis' and 'Discourse Analysis' as data analysis tools (10 pts)

.....

.....

.....

.....

2. Consider the following research topic:

Attitudes of English Learners towards Teachers' Feedback:

the Case of Second Year Students at UMMTO.

- Formulate a research question. (2.5 pts)

.....

.....

.....

- Suggest three different questionnaire items that you think can be appropriate for the study. (6 pts)

.....

.....

.....

.....

.....

- Categorise the questionnaire items. (1.5 pts)

.....

.....

.....

.....

All the best…