

Research Design

You must be able to:

- Describe and explain the different stages of the research process
- Show an understanding of ethical issues.

The Importance of the Research Process

- Sociologists carry out **research** in order to collect **data** systematically.
- This data provides evidence to help them explain the social world.

Key Point

Mixed methods research allows researchers to develop a more complete picture of a topic and build on the different strengths of quantitative and qualitative methods.

The Stages of the Research Process

Stage	Details
Developing research aims or hypotheses	<ul style="list-style-type: none"> • Research aims set out what the researcher intends to investigate and provide the study's focus. • A hypothesis is a hunch or an informed guess. It is written as a testable statement that will either be supported by the evidence or proved wrong.
Choosing a research method or methods	<ul style="list-style-type: none"> • Choice of methods is influenced by practical issues such as time and money, ethical issues and theoretical issues. One key theoretical issue relates to the debates about positivism and interpretivism. <ul style="list-style-type: none"> – Positivists favour a scientific approach when studying the social world. By generating hypotheses and testing them, sociologists can discover the facts. Positivists prefer quantitative methods such as social surveys which are designed to gather facts and to describe society in statistical terms. – Interpretivists aim to understand human behaviour by exploring what it means to those involved. They prefer qualitative methods such as in-depth interviews and participant observation that collect rich, detailed accounts.
Carrying out a pilot study	<ul style="list-style-type: none"> • A pilot study is a small-scale trial run carried out before the main research. It allows the researcher to test the chosen methods and ensure that they are appropriate and cost-effective.
Selecting a sample	<ul style="list-style-type: none"> • Rather than study the whole population, a researcher often selects a sample by using a sampling technique. <ul style="list-style-type: none"> – Random sampling: each member of the sampling frame has a known chance of being selected. A random sample is likely to be representative of the population and generalisations can be drawn from it. Examples include simple random sampling (each member of the population has the same chance of being included in the sample) and systematic sampling (taking every 'nth' item from the sampling frame). – Non-probability sampling: used when a sampling frame is unavailable. The sample is not selected randomly so it is unlikely to mirror the population. Examples include a snowball sample (contacting one member of the population and identifying others through them) and a quota sample (including a quota of women or teenagers, for example, in proportion to their numbers in the population).

	<ul style="list-style-type: none"> A representative sample is typical of its wider population. If the sampling frame is inaccurate (for example, incomplete or out of date), it may generate an unrepresentative sample. This would make it difficult to generalise from the sample to the population.
Collecting the data	<ul style="list-style-type: none"> This involves gathering raw data to use as evidence. Sociologists collect primary data by using research methods such as questionnaires or observation. They may also draw on secondary data or pre-existing sources collected by other people (such as official statistics). Sociologists may use quantitative data and/or qualitative data from the various primary and secondary sources. Mixed methods research generates both quantitative and qualitative data within one study. Triangulation involves cross-checking the findings from a qualitative method against the findings from a quantitative method.
Analysing the data	<ul style="list-style-type: none"> Data analysis involves interpreting or making sense of the information and summarising the main findings or results.
Evaluating the research	<ul style="list-style-type: none"> Sociological research outputs (for example, journal articles and conference papers) are reviewed and evaluated by other sociologists. This peer review is a form of quality control.

Research Ethics

- Ethical considerations** relate to morals and are important in the research process. Sociologists are expected to respect and safeguard participants' interests.
- Important principles include **informed consent**, anonymity, privacy and **confidentiality**.
- Principles of **data protection** apply to all information collected during the research process.



For some groups (such as homeless people), a sampling frame is not available and the sample cannot be selected randomly.

Quick Test

- With a simple random sample, each member of the population has an equal chance of being selected. True or false?
- With snowball sampling, researchers take every 'nth' item from the sampling frame, for example every 20th name from a school register. True or false?
- With systematic sampling, the researcher contacts one member of a population (for example, one member of a criminal subculture) and later identifies others in the same population. True or false?

Key Words

research data	unrepresentative sample
hypothesis	primary data
positivism	secondary data
interpretivism	quantitative data
population	qualitative data
sample	mixed methods research
random sample	triangulation
systematic sampling	data analysis
snowball sample	ethical considerations
quota sample	informed consent
representative sample	confidentiality
sampling frame	data protection

Quantitative Methods

You must be able to:

- Describe what a social survey, questionnaire, structured interview and longitudinal study involve
- Explain their uses, advantages and disadvantages.

Social Surveys

- A **social survey** consists of a list of standardised questions. Each **respondent** answers an identical set of questions.
- Surveys are usually used to collect quantitative data.
- There are two main ways of carrying out surveys:
 1. self-completion **questionnaires** delivered by post, via email or by hand
 2. structured or formal **interviews** delivered face-to-face or by telephone.

Different Types of Survey Question

- **Closed questions** require the respondent to choose between several given answers, possibly by ticking a box. The responses are relatively easy to process by computer and summarise in statistical form. The questions and answers must be worded clearly and all possible answers must be included.
- **Open-ended questions** allow respondents to give their own (longer and more detailed) answers to the set questions. Responses are likely to be varied and more difficult to convert into statistics.

Key Point

Quantitative methods such as questionnaires and structured interviews collect data in numerical form. The results are usually displayed in graphs, pie charts, bar charts or tables of statistics that count or measure something. Qualitative methods such as unstructured interviews and participant observation collect rich, detailed data in the form of words or quotations.

Advantages and Disadvantages of Questionnaires and Structured Interviews

Advantages	Disadvantages
<ul style="list-style-type: none"> • With standardised questions, respondents' answers can be compared to identify differences in attitudes or opinions. • Closed questions provide quantitative data and the answers can be presented in numerical form, for example in graphs. It is possible to measure the strength of a connection between different factors, for example between support for the government and trade union membership. • Replication: the questions are standardised, so a survey can be repeated to check for reliability. If the results are consistent a second time round, they are seen as reliable. • With reliable results, sociologists can generalise from the sample to the population. 	<ul style="list-style-type: none"> • Surveys use pre-set questions which do not allow any new issues to emerge. • With closed questions, the researcher decides not only the questions but also the possible answers in advance. • Closed questions do not let respondents explain why they ticked a particular box. • The results may lack validity because, for example, what people say about their behaviour may not reflect how they behave in their everyday lives. • Some feminist researchers such as Ann Oakley see structured interviews as based on unequal power relationships between the interviewer (who asks the questions) and the respondents (who are expected to answer rather than ask questions).

Advantages and Disadvantages of Postal Questionnaires

Advantages	Disadvantages
<ul style="list-style-type: none"> A quick and cheap way of getting information from large samples spread over a wide area. The researcher is not present so respondents may not feel under pressure to give socially acceptable answers. 	<ul style="list-style-type: none"> The respondent may misunderstand or skip questions. The questionnaire might not be completed by the person it was sent to. Unsuitable for some populations (e.g. illiterate or homeless people). The response rate (the number of replies received in proportion to the total number of questionnaires distributed) is usually low. Those who respond may not be representative or typical of the population being studied. If so, the researcher cannot make generalisations.



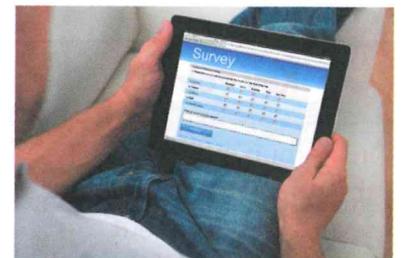
Think about why positivist sociologists might use social surveys.

Advantages and Disadvantages of Structured Interviews Compared to Postal Questionnaires

Advantages	Disadvantages
<ul style="list-style-type: none"> Interviewers can explain what the questions mean. They can ensure that all relevant questions are completed. Structured interviews do not exclude people with literacy problems. 	<ul style="list-style-type: none"> Interview bias: the interview situation itself may influence the respondents to give socially acceptable answers (known as social desirability). Respondents might not reveal their true thoughts or behaviour. Interviewer bias: the interviewer's age, gender, ethnicity or accent may influence the respondent's answers. In cases of interview and interviewer bias, the results will lack validity – they will not provide a true or authentic picture of the topic under study.

Key Point

Interviews may be structured, semi-structured or unstructured depending on how far the questions are standardised in advance. Structured interviews provide quantitative data and unstructured interviews provide qualitative data.



Surveys are a popular research method.

Longitudinal Studies

- A **longitudinal study** follows the same group of people over time. After the initial survey or interview has taken place, follow-up surveys or interviews are carried out at intervals over several years.
- They allow researchers to study changes in individuals' behaviour, values and opinions over time.

Disadvantages of Longitudinal Studies

- Longitudinal studies are relatively expensive and time-consuming.
- There are problems in maintaining contact with the original sample over time.
- People may change their minds and decide to withdraw from the study.

Quick Test

- Identify one advantage of using closed questions in a survey.
- State one disadvantage of a longitudinal study.
- Identify one similarity between a structured interview and a postal questionnaire.

Key Words

social survey
 respondent
 questionnaires
 interviews
 closed questions
 open-ended questions
 trade union
 reliability
 bias
 validity
 longitudinal study

Qualitative Methods

You must be able to:

- Explain the uses, advantages and disadvantages of unstructured and group interviews
- Explain the uses, advantages and disadvantages of participant and non-participant observation.

Interviews in Qualitative Research

- In qualitative research, sociologists use in-depth interviews which range from completely unstructured to loosely or semi-structured.

Advantages and Disadvantages of Unstructured Interviews

Advantages	Disadvantages
<ul style="list-style-type: none"> • Interviewers can probe, ask follow-up questions and explore complex issues. • Interviewees can develop their answers and introduce issues that the researcher had not thought of. • By exploring how interviewees understand their own experiences, sociologists can obtain rich, detailed and valid data. • Sociologists can build a stronger rapport with the interviewees, allowing them to investigate sensitive topics. 	<ul style="list-style-type: none"> • Relatively time-consuming and expensive for the amount of data collected. • They need a skilled interviewer to keep the conversation going and encourage interviewees to open up. • If interview or interviewer bias occurs, the results will be invalid. • The sample is usually small and unrepresentative. • Without a standardised schedule, it is virtually impossible to replicate an unstructured interview in order to check the reliability of the findings. Consequently, it is difficult to make generalisations.

Key Point

In a group interview, the researcher questions several people about various topics. A **focus group** concentrates on one particular topic. It explores how people interact within the group and respond to each other's views.



A focus group concentrates on one topic and explores how participants respond to each other's views.

Key Point

Unstructured interviews are popular among some feminist sociologists. Ann Oakley (1974) prefers in-depth rather than structured interviews because the relationship between the interviewer and interviewee is more equal.

Advantages and Disadvantages of Group Interviews

Advantages	Disadvantages
<ul style="list-style-type: none"> • Researchers can access a wide range of views and experiences. • Interviewing people together saves time and money. • Individuals may feel more comfortable discussing their experiences in a group setting. 	<ul style="list-style-type: none"> • The researcher must manage group interviews carefully, particularly when the topics are sensitive. • The interviewees may influence each other and some may dominate discussions. • The researcher cannot guarantee confidentiality.

Think about why interpretivist sociologists might use unstructured interviews or participant observation.

Participant Observation

- In a **participant observation** (PO) study, the researcher joins a group and participates in its daily activities in order to investigate it.
 - With **overt PO**, the group is aware of the researcher's identity.
 - With **covert observation**, group members are not informed that they are taking part in a study. This may be the only way to study criminal groups. Critics, however, argue that it is unethical because it invades people's privacy and is not based on informed consent.

Advantages and Disadvantages of Participant Observation

Advantages	Disadvantages
<ul style="list-style-type: none"> • The researcher can study a group in its natural everyday settings and observe its activities as they occur. The term ethnography refers to the study of people's culture and practices in everyday settings. • A PO study is usually carried out over time. Researchers build up trust and see and hear things that they would not normally have access to. • By participating in the group's activities, the researcher can see things from group members' perspectives and develop a deeper understanding of their behaviour. • By giving a true picture of the meanings behind behaviour, PO gathers valid data. 	<ul style="list-style-type: none"> • It may be difficult to gain entry to the group and to develop trust. • PO is a relatively time-consuming and expensive method. • The observer effect – with overt PO, the researcher's presence may influence the group's behaviour. In this case, the validity of the findings will be affected. • The researcher may become so involved with the group that the findings are biased or one-sided. In this case, over-involvement would invalidate the findings. • A PO study is unique and it would be impossible to replicate it to check the reliability of the findings. So it is difficult to generalise about similar groups.

Non-participant Observation

- With **non-participant observation**, the researcher studies the group by observing its activities in a natural setting without participating in them.

Advantages and Disadvantages of Non-participant Observation

Advantages	Disadvantages
<ul style="list-style-type: none"> • Non-participant observers directly observe people's behaviour in natural settings such as classrooms rather than relying on what interviewees tell them. • They can take notes freely. • They are less likely than participant observers to get too drawn into the group's activities. • Non-participant observers may be more objective (less influenced by their personal feelings about the group) than participant observers. 	<ul style="list-style-type: none"> • Non-participant observers are less likely than participant observers to understand things in the same way as group members. • The observer effect may invalidate the findings.

Key Words

focus group
unstructured interviews
participant observation
covert observation
ethnography
non-participant observation

Quick Test

1. What do sociologists mean by interview bias?
2. Describe what sociologists mean by the observer effect.

Secondary Sources of Data

You must be able to:

- Explain the uses, advantages and disadvantages of official statistics
- Discuss the uses, advantages and disadvantages of other secondary data
- Explain the uses, advantages and disadvantages of content analysis.

Key Point

Non-official statistics are a source of quantitative secondary data produced by non-governmental bodies, e.g. banks and charities.

Official Statistics

- Official statistics such as crime and birth rates are an example of quantitative secondary data.
- They are compiled by government departments and agencies such as the Office for National Statistics (ONS).

Advantages and Disadvantages of Official Statistics

Advantages	Disadvantages
<ul style="list-style-type: none"> • Save time and money because they already exist and are readily available. • Based on large samples and are therefore more likely to be representative. The census, for example, provides statistical information about the full population. • Allow sociologists to investigate trends over time in areas such as divorce, unemployment and underemployment. • Can be combined with qualitative data in mixed methods research. 	<ul style="list-style-type: none"> • Might not tell sociologists exactly what they want to know about a particular issue. Divorce statistics, for example, provide information about the number of divorces recorded each year but exclude empty shell marriages. • Interpretivist sociologists argue that official statistics on divorce or unemployment tell us nothing about what it means to the individuals involved to be divorced or unemployed. • Sociologists cannot check the validity of official statistics. Some statistics (such as birth rates) are likely to give a valid or true picture. Statistics on domestic violence, however, may not give an accurate measurement of its extent. • Interpretivist sociologists argue that official statistics are a social construct. In other words, the statistics are the outcome of decisions made by the various people involved in their construction. Crime statistics, for example, are the outcome of decisions made by people such as victims and police officers.

Quantitative Data Collected by Other Researchers

- Rather than collecting primary data themselves, sociologists can analyse data that other researchers have collected.
- Quantitative data from large, high-quality surveys can be accessed online.



Advantages and Disadvantages of Quantitative Data Collected by Other Researchers

Advantages	Disadvantages
<ul style="list-style-type: none"> • Researchers can save time and money by analysing pre-existing data from surveys rather than collecting data from scratch. • Many of the data sets (such as the Millennium Cohort Study) are of a high quality. They are based on large samples that are reasonably representative. • It is possible to carry out longitudinal analysis of this data. 	<ul style="list-style-type: none"> • The researcher did not collect the data and has no control over its quality or its validity. • The data was collected for other purposes so some key variables may be missing.

Qualitative Secondary Data

Sources of qualitative secondary data include:

- data from existing research studies
- mass media products such as newspapers and television
- personal documents such as diaries and letters
- material produced via the internet such as email and blogs
- autobiographies and biographies.

Advantages and Disadvantages of Qualitative Secondary Data

Advantages	Disadvantages
<ul style="list-style-type: none"> • Written documents may provide useful background information about the organisations, experiences or events they refer to. 	<ul style="list-style-type: none"> • Written documents such as diaries or autobiographies may be forgeries. If they are genuine, the contents may not be true. • The events described may have been misinterpreted, for example due to the writer's prejudices.

Content Analysis

- **Content analysis** is a way of dealing systematically with qualitative secondary sources such as newspapers and advertisements on television.
- Feminist studies of the representation of gender in television advertisements might use content analysis.
 - In this case, the researcher constructs a set of categories in advance, for example 'gives orders/takes orders'.
 - The researcher then works through the advertisements, coding all sections that show a character giving or taking orders.
 - Once the contents have been coded, the researcher counts up the number of times female and male characters do these things.

Advantages and Disadvantages of Content Analysis

Advantages	Disadvantages
<ul style="list-style-type: none"> • It generates quantitative data and the contents of different products (such as different TV advertisements) can be compared statistically. • The researcher works with a set of categories so the analysis can be replicated to check reliability. 	<ul style="list-style-type: none"> • It can be time-consuming and laborious. • It involves subjective judgements which may create invalid data.

Quick Test

1. Content analysis generates qualitative data from quantitative sources. True or false?
2. Crime rates are more likely than birth rates to be valid. True or false?

Key Point

Sociologists can analyse both quantitative and qualitative data that other researchers have collected.



Media products such as newspapers are a source of qualitative secondary data.

Key Words

census
empty shell marriages
trends
unemployment
underemployment
social construct
content analysis