

# Higher level paper 3

Paper 3 assesses the approaches to research in psychology. The paper consists of a research scenario followed by three short-answer questions for a total of 24 marks.

## Question 1

Question 1 will consist of all of the following questions, for a total of 9 marks. The questions will be assessed using an analytical mark scheme.

Questions	Marks
Identify the research method used and outline two characteristics of the method.	3
Describe the sampling method used in the study.	3
Suggest an alternative or additional research method giving one reason for your choice.	3

## Question 2

Question 2 will consist of one of the following questions, for a total of 6 marks. The question will be assessed using an analytical mark scheme.

Questions	Marks
Describe the ethical considerations that were applied in the study and explain if further ethical considerations could be applied.	6
Describe the ethical considerations in reporting the results and explain additional ethical considerations that could be taken into account when applying the findings of the study.	6

## Question 3

Question 3 will consist of one of the following questions, for a total of 9 marks. The question will be assessed using the rubric below.

Questions	Marks
Discuss the possibility of generalizing/transferring the findings of the study.	9
Discuss how a researcher could ensure that the results of the study are credible.	9
Discuss how the researcher in the study could avoid bias.	9

## Rubric for question 3

Mark band	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1–3	The question is misunderstood and the central issue is not identified correctly, resulting in a mostly irrelevant argument. The response contains mostly inaccurate references to the approaches to research or these are irrelevant to the question. The reference to the stimulus material relies heavily on direct quotations from the text.
4–6	The question is understood but only partially answered resulting in an argument of limited scope. The response contains mostly accurate references to approaches to research which are linked explicitly to the question. The response makes appropriate but limited use of the stimulus material.
7–9	The question is understood and answered in a focused and effective manner with an accurate argument that addresses the requirements of the question. The response contains accurate references to approaches to research with regard to the question, describing their strengths and limitations. The response makes effective use of the stimulus material.

## Research methods

You will be expected to:

- identify the research method used and outline two characteristics of the method
- suggest an alternative or additional research method giving one reason for your choice. Usually, this reason will stem from a shortcoming of the research method in the stimulus material and/or a strength of the alternative method you suggest.

The research methods identified by the IB are divided into **qualitative** and **quantitative** methods. In quantitative data, the aim is to produce **objective** knowledge where the emphasis is on the isolation and measurement of key **variables**. Qualitative researchers are concerned with meaning and experience – that is, they are interested in how people make sense of the world and how they experience events. The two methods can be used in conjunction with one another, such as interview data bolstered by survey data.

## Qualitative methods

### Case studies

A **case study** is a detailed analysis over time of a singular area of interest (a case) to produce in-depth, context-dependent knowledge. The area of interest is defined by

the research and while it can be an in-depth study of one individual, it does not have to be. It is not a singular method but an approach to gathering data using a variety of research methods. Case studies often include a certain amount of **triangulation** and therefore it is believed that using different perspectives will result in rich data and a better all-round understanding of the situation. Conclusions based on multiple sources are considered to be more **credible**.

Main data collection methods in case studies include:

- focus groups
- **semi-structured interviews**
- observations
- diary accounts
- newspaper articles
- participant observation
- personal notes (e.g. letters, photographs, notes)
- official documents (e.g. case notes, clinical notes, appraisal reports)
- questionnaires.

### **Strengths of case studies**

Case studies provide an opportunity to investigate phenomena that could not be studied otherwise because of the flexible nature of the approach.

They stimulate new research, because the case can highlight phenomena that need further investigation. For example, case studies of people with brain damage have encouraged research in memory processes and biological correlates of memory, using animal research to test theories. Case study research on intervention programmes for at-risk youths has resulted in more case studies to evaluate the effectiveness of interventions, in terms of how the users see them.

They can contradict established theories and help to develop new theories.

### **Limitations of case studies**

It can be difficult to determine whether a series of related studies constitute a proper case study or if they are just a collection of studies dealing with the same question. Therefore, they are difficult to replicate as a whole research approach.

There is a potential risk for **researcher bias** in case studies. The researcher's own beliefs can influence the way the data is collected and analysed, but this could be controlled via **reflexivity** and other strategies to maintain credibility.

The reliance on memory when reconstructing the case history will be subject to distortion. Participants in case studies may also change their accounts in order to appear more socially acceptable to a researcher who they want to build a rapport with.

## Naturalistic observations

**Naturalistic** observations are observations of naturally occurring behaviour in a natural setting. Several different recording techniques can be used, but field notes are an important part of the data. Observations may be participant or non-participant observations.

### Strengths of naturalistic observations

Naturalistic observations have high **ecological validity** as the collection of data takes place in a natural environment and it is assumed that the participants behave in natural ways (in contrast to research in laboratories).

Naturalistic observations can be used to collect data in cases where it would be impossible or unethical to do so otherwise.

### Limitations of naturalistic observations

There can be ethical considerations concerning the appropriateness of observing strangers without their knowledge. The researcher should also be careful not to violate the privacy of participants.

Naturalistic observations generate a lot of data and researchers have to make a decision about what, when, and how they will observe it. This can be addressed by recording behaviour, which raises ethical issues, and/or having more than one researcher, which raises inter-observer **reliability** issues.

## Participant observations

In **participant observations**, the researcher becomes part of the group he or she observes. The aim of this research strategy is to gain a close and intimate familiarity with a given area of interest in a natural setting. The researcher enters the social world of other people, but they also affect the researcher in certain ways. It is important that the researcher is aware of this and that continuous reflections become part of the interpretation of the data. Critical thinking like this is always important, but particularly when the researcher chooses to study a group in which he or she has a personal or political engagement. In the analysis, the researcher includes this and any other relevant biographical data because this is an important perspective in the interpretation of the data. This is an example of reflexivity.

### Strengths of participant observations

Participant observations provide very detailed and in-depth personal knowledge of a topic, which cannot be gained by other methods.

They are one of the best methods to avoid researcher bias because the researchers seek to understand how and why the social processes are the way they are, instead of imposing their own reality on the phenomenon. The researcher cites the research in the universe of the participants.

They provide a **holistic** interpretation of a topic, because the researcher takes into account as many aspects as possible of that particular group of people, in order to synthesize observations into a whole. The researcher uses material from

the participants themselves to generate 'theory', and tries to explain one set of observations in terms of its relationship with others.

### Limitations of participant observations

The researcher can become too immersed in the environment. Proper reflexivity needs to be maintained.

Participant observations can be time-consuming and demanding. The researcher needs to be physically present and try to live the life of the people he or she is studying.

There is a risk that researchers lose objectivity, but this always has to be managed with qualitative data. Researchers are supposed to see the world from the point of view of the participants, but this may present problems in terms of objectivity. In participant observation there is a delicate balance between involvement and detachment.

Every participant observer has to ask themselves: To what extent has their mere presence changed the behaviour of the group they are observing?

Deception is necessary (for **covert** methods), but this raises serious ethical issues. For example, friendships are formed on false pretences and peoples' feelings and lives are changed as a result of the research.

### Non-participant observation

**Non-participant observation** means that the researcher is not part of the group being studied. It is a research technique by which the researcher observes participants, with or without their knowledge. The researcher does not take an active part in the situation as in participant observation. Some observational research takes place in psychological laboratories using one-way mirrors.

### Strengths of non-participant observation

Non-participant observations can be seen as more objective because the researcher is not taking part in the behaviour being studied.

They can be seen as more ethical because the researcher cannot be said to actively influence the behaviour they are studying.

### Limitations of non-participant observation

Participants often react to being observed. This is called **reactivity**, and it is assumed that reactivity will make the data less trustworthy/valid. This can be addressed by not informing people they are being studied, which raises clear ethical issues.

### Overt and covert observation

Participant and non-participant observations can be **overt** or covert. The researcher decides in advance which technique is most appropriate for the research. In an overt observation, the participants know they are being observed whereas in a covert observation, the participants are not aware of being studied, so they have not agreed to it. Therefore, in a covert observation the researcher has to 'make up a story' to justify his or her presence in the setting in order to mask his or her real purpose for

being there. Therefore, there are serious ethical issues involved in covert observations because not all (if any) of the participants will have been asked if they want to take part in a research study. Therefore, careful thought needs to be given to the ethical considerations usually by the **Research Ethics Committee** (REC). Furthermore, during covert observations it can be dangerous for the researcher if he or she is investigating a group of people who are known to be violent, such as street gangs. Any 'cover' that is established will need to be convincing and known to only a few people.

### Interviews

Qualitative interviews include **unstructured**, semi-structured and focus group interviews. These are used to gain an insight into people's thoughts, opinions, and feelings from their own point of view. Qualitative interviews may be followed by surveys (a quantitative method) to collect data from a representative sample so that the findings can be **generalized** to a larger population. This could, for example, be a useful way to explore a psychological phenomenon in a case study.

#### Unstructured interviews

Unstructured interviews are interviews where the questions are not prearranged. They contain open questions and are informal, free flowing, and resemble a probing conversation.

#### Strengths of unstructured interviews

Unstructured interviews produce in-depth, rich, and nuanced data. A 'primal telling' in the participants' own language and expression.

They allow the researcher to be creative and adapt to the situation.

#### Limitations of unstructured interviews

Unstructured interviews offer limited scope to be replicated by other researchers or even the same researcher who wants to interview other participants because of their free-flowing nature.

They produce a large amount of data, much of which may not be relevant. It has to be sorted, transcribed, edited, and interpreted. This often means fewer participants in a particular research study because otherwise the data becomes overwhelming.

The researcher can more easily introduce their own biases and lead the interview in any direction they choose.

#### Semi-structured interviews

Semi-structured interviews involve the preparation of an interview guide that lists themes that should be explored during the interview. This guide serves as a checklist during the interview, but there is a great deal of flexibility in that the order of questions and the actual wording of questions are not determined in advance. Furthermore, the interview guide allows the interviewer to pursue questions on the list in more depth than others.

### Strengths of semi-structured interviews

Semi-structured interviews still allow for a 'primal telling' of experiences in the interviewee's own language and expression while still following a semi-structured pattern. There is less potential bias by the researcher because there is some structure to the questions.

They have the flexibility of open-ended approaches, as well as the advantage of a structural approach. It enables the researcher to make interventions, asking participants to either clarify or expand on areas of interest.

They allow for analysis in a variety of ways because it is compatible with many methods of data analysis.

They allow for some consistency between different researchers.

### Limitations of semi-structured interviews

Semi-structured interviews can limit how much the researcher pursues interesting data trails if they tie themselves too tightly to their schedule.

Researchers could impose their own expectations (**confirmation bias**) on the data through the use of specific questioning. Decision trails are necessary to improve credibility/trustworthiness.

### Focus groups

A focus group normally consists of around six to ten people. Members of a focus group often have a common characteristic that is relevant for the topic of investigation, which is why **purposive sampling** is often used. The researcher has the role of facilitator, which means they are in charge of the group to make sure it stays on task by monitoring and prompting the group discussion.

### Strengths of focus groups

Focus groups offer a quick and convenient way to collect large amounts of data from several individuals simultaneously.

They are particularly useful for exploring people's knowledge and experiences because it can be used to gain insight into what they think, how they think, and why they think that way.

They highlight cultural values or group **norms**.

### Limitations of focus groups

Focus groups are not suitable for producing intimate data from the participants.

The presence of other participants may result in group dynamics such as **conformity** and **groupthink**, where individuals express views they do not hold as individuals in a group.

## Quantitative methods

### Experiments

Experiments are designed with one clear **independent variable** (IV) and a **dependent variable** (DV). All other factors that could affect the DV are controlled as far as possible. The IV may be graduated, resulting in a range of conditions on a scale. Alternatively there may be only two conditions for the IV: one is the **control**, the other the test condition. This is a simple experiment.

#### Strengths of experiments

Experiments can establish a **cause-effect relationship** between an IV and DV (**validity**).

They can be easily replicated by other researchers (reliability).

#### Limitations of experiments

There is a lack of ecological validity in experiments as the environments and testing methods have to be so tightly controlled.

The isolation of variables sometimes means more nuanced factors are ignored or downplayed as the emphasis is placed on establishing cause-effect between variables rather than a grand narrative to explain complex events.

### Field experiments

In **field experiments**, the researcher manipulates the IV but conducts the experiment in a real-life environment. As a result extraneous variables cannot be controlled.

#### Strengths of field experiments

There is a higher degree of ecological validity as the environments are more natural.

The participants do not have to know they are being studied so they do not react as much, if at all, to the presence of a researcher.

#### Limitations of field experiments

Field experiments lack complete replication as they take place in a natural environment.

There are problems with **informed consent** as not every participant will be aware they are taking part in a social science study.

### Quasi-experiments

In **quasi-experiments**, participants are grouped based on a characteristic of interest, such as **gender**, **ethnicity**, or scores on a depression scale.

#### Strengths of quasi-experiments

Quasi-experiments allow one characteristic to be isolated and researched in a controlled way.

There is a higher degree of ecological validity as the environments are more natural.

### Limitations of quasi-experiments

Care has to be taken to create a comparable control group, otherwise there is a problem with **internal validity** as the participants are grouped based on a characteristic of interest. This characteristic needs to be reflected in the control group for meaningful comparison to take place.

The amount of confounding variables means **causality** between variables is difficult to establish.

### Natural experiments

In natural experiments, researchers find naturally occurring variables and study them. The researcher does not manipulate the variables but simply records the possible effects of identified IVs on identified dependent variables.

### Strengths of natural experiments

There is a higher degree of ecological validity in natural experiments as the environments are more natural.

Natural experiments allow variables to be isolated and researched in a semi-controlled way.

### Limitations of natural experiments

The researcher does not manipulate the variables in a natural experiment, so it is not possible to establish a cause-effect relationship.

There are problems with informed consent as not every participant will be aware they are taking part in a social science study.

### Correlations research

In **correlations research** there is a focus on two variables, but these are not termed independent and dependent variables as the **hypothesis** is not based on a potential cause and effect, instead they are referred to as **co-variables**. They have similar strengths and limitations to natural experiments.

### Strengths of correlations research

There is a higher degree of ecological validity in correlations research as the environments are more natural.

Allows variables to be isolated and researched in a semi-controlled way.

### Limitations of correlations research

The researcher does not manipulate the variables in correlations research, so it is not possible to establish a cause-effect relationship.

There are problems with informed consent as not every participant will be aware they are taking part in a social science study.

## Surveys

Surveys can be quantitative or qualitative in nature. Quantitative surveys usually involve tightly focused questions that can be answered with a numbered answer response on a scale.

### Strengths of surveys

A large amount of data can be collected from large populations in a relatively quick and easy way.

Patterns of behaviour can be seen before more in-depth research is carried out.

### Limitations of surveys

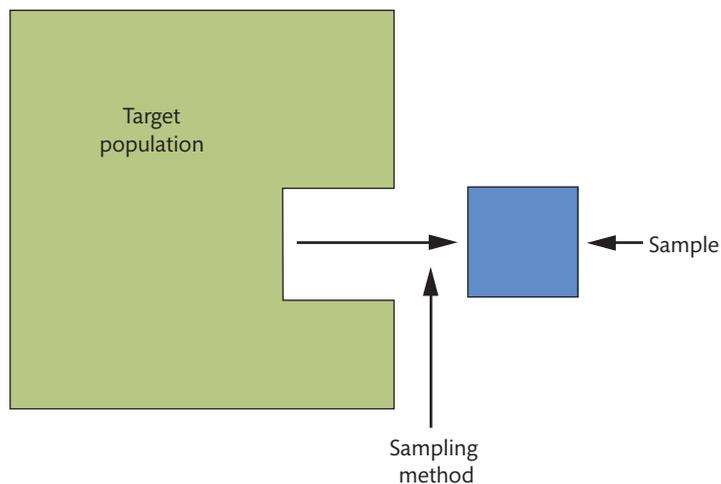
The researcher does not manipulate the variables, so it is not possible to establish a cause-effect relationship.

The data is not very in-depth or rich.

## Sampling methods

You will be expected to describe the sampling method used in the study.

Researchers cannot research an entire population. They first have to decide what group they are interested in (known as the **target population**) and then select a group of people from it. This is the sample. The method they use to extract the sample will influence the characteristics of the sample.



A diagram showing the relationship between the target population, sampling method, and sample.

The following are common methods:

**Random sampling:** the process where every member in the target population has an equal chance of being selected.

**Convenience/opportunity sampling:** the process of selecting people who are able to participate in the study at a given time. They may be known to the researcher or within a place the researcher has access to.

**Volunteer sampling:** when individuals choose to participate in the study.

Purposive sampling: participants are chosen because they possess characteristics relevant to the research study.

**Snowball sampling:** participants who are already in a study help the researcher to recruit more participants through their social network. This is particularly useful and gains access to subgroups or people who might not otherwise allow themselves to be interviewed.

## Ethical considerations

You will be expected to:

- describe the ethical considerations that were applied in the study and explain whether further ethical considerations could be applied
- describe the ethical considerations in reporting the results and explain additional ethical considerations that could be taken into account when applying the findings of the study.

There are, overall, the same ethical issues involved in qualitative research as in quantitative research. These include informed consent, protection of participants from psychological or physical harm, respect for the participants' integrity and privacy, and the right to withdraw from the research. However, there are special ethical considerations to be made due to the very nature of qualitative research. The characteristics of qualitative or field research usually include long term and close personal contact with participants, which may have implications for what the participants disclose to the researcher.

### Informed consent

Informed consent should always be obtained wherever possible unless it conflicts with the aims of the research. This is stressed in all guidelines on ethical conduct in research by reputable RECs. However, in some cases, where it would not otherwise be possible to study a phenomenon (e.g. use of violence in a street gang), ethics committees may offer dispensation from the rule because the goal of the research is to obtain knowledge that may eventually prevent violence.

However, generally, participants should know their participation is voluntary. This is particularly important if the research is conducted by people who have some kind of relation to members of the sample, since participation could then be motivated by feelings of obligation. The researcher must provide the participants with sufficient information about the study, such as who funded the study, who will conduct the study, how the data will be used, and what the research requires of the participants – for example, in terms of time and the topics the study will address. It should also be made clear that consent can always be renegotiated. In cases where children aged under 16 years are involved, consent must be obtained from parents or legal guardians.

### Protecting participants from harm

Researchers should take preventive action in all research to avoid harming participants. This is particularly true in sensitive research topics, such as drug abuse,

domestic violence, or alcoholism in the family. Due to the nature of qualitative methods, participants may disclose very private information that they have never shared with anyone before.

Prior to the interview, and before they agree to participate, participants should have a clear understanding of the topics to be addressed. Researchers must approach sensitive issues through clear and direct questions, so that participants are not drawn into irrelevant and sensitive details by mistake. If the participants show signs of discomfort, the researcher should be empathetic and consider stopping the interview.

### Anonymity and confidentiality

Participants should be informed about the issues surrounding **anonymity** and **confidentiality**. The identity of the participants should not be known outside the research team, but in cases where sampling has involved a third party (e.g. managers, friends, teachers), this cannot be done, and in this case the participants should be informed.

Confidentiality means that research data will not be known to anyone outside the study. The researcher may have to change minor details in the report to avoid the possibility of participants being recognised. Confidentiality also relates to the way data is stored after the research. If interviews or observations have been recorded and archived, it can be difficult to guarantee total anonymity, so these should be destroyed when transcripts have been made. If the researcher finds it necessary to archive non-anonymized data, the participant should give written informed consent.

### Use of quotes

Using extensive quotes can reveal the identity of the participant. If proper checks are not in place to ensure anonymity it can have lasting consequences for participants. It is difficult to lose participants in a small qualitative crowd because readers can guess the identity of the participants by the way they speak or what they are saying. Therefore, careful consideration needs to be given to the use of quotes.

### Who to include

In case studies where covert observation is used, participants may not have consented to their involvement and will not know they have the right to withdraw from the research, because they do not know that they are being studied.

## Generalizing findings

You will be expected to discuss the possibility of generalizing the findings of the study.

Generalization for quantitative research is based on **probability sampling** and the results are applicable to the whole target population. However, the IB also states that qualitative researchers should consider **transferability** where findings from a study can be transferred to settings and/or populations outside the study only if the findings of a particular study are corroborated by findings of similar studies (for example, in multiple case studies).

The following forms of generalization can be distinguished in qualitative research:

**Representational generalization:** findings from qualitative research studies can be applied to populations outside the population of the study. Qualitative research normally involves small samples that are not selected to be statistically representative, and non-standardized interview methods may be used. This makes it difficult to generalize findings. However, if evidence from other studies confirms the findings, it is argued that generalization is possible. For example, qualitative interviews may be followed by surveys (a quantitative method) to collect data from a representative sample so that the findings can be generalized to a larger population.

**Inferential generalization:** findings of the study can be applied to settings outside the setting of the study. This is also called transferability or external validity. If the study on homeless people is a pilot programme to test the effectiveness of a service to resettle homeless people, the question is whether the findings can be applied to other services that provide help to the homeless. Whether or not the findings can be transferred to another setting will depend on the depth of the description of the researched context and the phenomenon. This description may allow for inferences to be made, but it will rest as a hypothesis until it is supported or disproved by further evidence.

**Theoretical generalization:** theoretical concepts derived from the study can be used to develop further theory. The findings from a study might lead to inferences about possible effective policies to help homeless people. In that way, the findings from the study may contribute to wider social theory.

## Achieving credibility

You will be expected to discuss how a researcher could ensure that the results of the study are credible.

It is usually difficult to replicate findings in qualitative research because qualitative data relies on researcher interpretation, subjective decisions (e.g. choosing participants, deciding on questions, deciding on interview settings, choosing segments of interviews, interpreting the data), which all have the influence of the researchers' personal decisions. Therefore, credibility is used in qualitative research to indicate whether or not the findings of the study are in line with the participants' perceptions and experiences.

The following techniques increase credibility in qualitative research:

- inclusion of samples from interviews
- claims supported with excerpts from the interview
- use of a 'decision trail'
- explanations for the decisions the researcher came to (to help the reader understand where, why, and how the researcher conducted the research in the way they did)
- use of **peer review** to check the interpretations
- other researchers who are interested in the same area can add further insight as well as question the original findings.

## The use of reflexivity

Reflexivity is based on the assumption that it is important the researcher is aware of his or her own contribution to the construction of meaning in the research process. Reflexivity is a process that occurs throughout the research. It allows the researcher to reflect on ways in which bias may occur. Researchers should provide sufficient details about issues that may potentially bias the investigation. For example, revealing where they stand in terms of political ideology.

## The use of triangulation

Triangulation is the validation of data through cross verification from two or more sources. The sources are usually theoretical and/or, methodological.

**Methodological triangulation:** different methods (e.g. interviews plus observations and questionnaires and diary analysis) are used to research the same phenomena.

**Theoretical triangulation:** the search for evidence or approaches that could contradict their interpretation is conducted through a different theoretical lens (e.g. a feminist lens; a behaviourist lens; a collectivist lens).

**Researcher triangulation:** the use of other researchers who would bring different perspectives and experience that might challenge the findings of the lead researcher.

## Avoiding bias

You will be expected to discuss how the researcher in the study could avoid bias.

Bias refers to human factors that may affect the results of the study. The following are common biases.

### Researcher bias

Researcher bias is when the researcher themselves influences the results of the study because of a personal view they hold. For example, they may want a certain treatment to work or they hold a political view on how a certain group is being treated by a government. This may manifest itself in terms of who and how they choose for the study, how they act towards participants, how they emphasize and de-emphasize certain themes in the data, and the conclusions they come to. The researcher should apply reflexivity to control this during the study and then provide information to the reader in the final report.

### Participant bias, or demand characteristics

Participant bias is when participants act according to how they think the researcher may want them to act. For example, the social desirability effect refers to the idea that participants may give answers they presume are socially desirable but not necessarily what they truly believe. Researchers need to ask: What have I done to control this? How might the participants act under different conditions? How can I ask the same question in different ways to see if the participants are consistent?

## Sampling bias

**Sampling bias** occurs when the sample is not representative of the target population. Researchers need to ask: If I changed the sample how would it affect the findings?

The assumption that bias can be completely avoided is problematic for philosophical and practical reasons. However, bias can be addressed by the researcher engaging in a reflexive process throughout the study and making that process available for peer review and for their readers.

### Practice scenarios

The paper 3 exam will consist of stimulus material followed by short-answer questions.

The questions will be:

#### Question 1

**Identify the research method used and outline two characteristics of the method. (3)**

This question wants you to label the research method and then state two characteristics of this method.

AND

**Describe the sampling method used in the study. (3)**

This question wants you to state and describe the sampling method.

AND

**Suggest an alternative or additional research method giving one reason for your choice. (3)**

This question wants you to label an additional method that might be useful for the subject being studied and then state a reason why it would be appropriate.

#### Question 2

**Describe the ethical considerations that were applied in the study and explain if further ethical considerations could be applied. (6)**

Human science research usually has some explicit ethical issue. For example, it will investigate young people, sick people, and people in difficult situations such as homelessness. This question wants you to consider the ethical considerations in reporting and applying the results.

OR

**Describe the ethical considerations in reporting the results and explain additional ethical considerations that could be taken into account when applying the findings of the study. (6)**

This question wants you to consider the wider ethical considerations in applying the research. Human science research usually has some element of applicability to a social need. What would the applicability of the results look like (e.g. some form of



Use different coloured highlighter pens to mark off various sections that are relevant to the questions being asked. These are:

- The research method
- The sampling method
- Ethical aspects
- What did they do?
- To whom did they do it?
- How did they do it?
- What are the findings?

Write in the margins:

- What were the basic problems?
- How can the study be improved?

new therapy; educational campaign) and what would be the ethical considerations surrounding a potential application?

**Question 3**

**Discuss how the researcher in the study could avoid bias. (9)**

This question wants you to consider how the researcher could avoid bias should the research be carried out again. You will need to spot ways in which bias has already affected the methodology of the research. You will need to discuss the various ways bias can be avoided.

OR

**Discuss how a researcher could ensure that the results of the study are credible. (9)**

This question wants you to consider how the researcher could improve the credibility should the research be carried out again. You will need to spot ways in which credibility has already been challenged in the methodology of the research. You will need to discuss the various ways credibility can be improved.

OR

**Discuss the possibility of generalizing/transferring the findings of the study. (9)**

This question wants you to consider how the findings of the study can be generalized (quantitative studies) or transferred (qualitative studies). You will need to discuss the various forms of generalization and transferability.

## Scenario 1

The aim of this case study was to investigate gender differences in online learning for students in higher education in a US university. A US Department of Education statistic suggests university enrolments in the US will be more than 20 million by 2020. As student enrolment increases, there will be pressure on classroom and lecture hall space and so it is expected that more universities will make use of computers to deliver education and communicate with students. Therefore, using computer-based communication (CBC) is one of the main ways these institutions are addressing rising student enrolment. For example, digital seminars can be delivered online where participants take part via cameras and microphones. A seminar is a small group focused learning environment where students can discuss issues led by the tutor.

A female researcher in the USA was interested in communication patterns of students using computer-based communication (CBC) while studying at university. The researcher herself was a tutor at the same university where she carried out her research. The research project used unstructured interviews to collect data from 60 participants (47 female; 13 male) who were chosen using convenience sampling. The sample consisted of adult professionals studying for bachelor and master's degrees. They were asked to sign informed consent forms and were fully debriefed after the interviews were completed. They were guaranteed anonymity and confidentiality. At the end of the interviews the researcher carried out a focus group with ten female participants who were chosen using convenience sampling. They were asked to discuss their experiences of being in a CBC environment. Participant quotes and stories from the focus group were used heavily in the results section of the report.

The overall results showed male and female preferred learning styles and communication patterns, and participation barriers were compared for differences in gender. Results showed there are gender differences between male and females in communication styles. For example, there was a tolerance of male domination in online communication patterns, which was seen as effectively silencing female students and making it more difficult for them to communicate on an equal footing with the males. Implications for practice were discussed. The main results that emerged were that training was needed for the male participants to help them understand how they could improve their communication styles to better accommodate the female participants.

### Question 1

Identify the research method used and outline two characteristics of the method. (3)

Describe the sampling method used in the study. (3)

Suggest an alternative or additional research method giving one reason for your choice. (3)

### Question 2

Describe the ethical considerations that were applied in the study and explain if further ethical considerations could be applied. (6)

### Question 3

Discuss the possibility of generalizing/transferring the findings of the study. (9)

## Answers

### Question 1

*Identify the research method used and outline two characteristics of the method. (3)*

The research method is a case study that consists of a detailed analysis over time of a singular area of interest (a case) to produce in-depth, context-dependent knowledge. The case study consisted of unstructured interviews and focus groups to collect data. The case was a university that made use of computer based communications (CBC) to deliver education and communicate with students.

*Describe the sampling method used in the study. (3)*

The sampling method used in the study was convenience sampling, which is the process of selecting people who are able to participate in the study at a given time. They may be known to the researcher or within a place the researcher has access to, which means the researcher who worked at the university may well have taught some of the students or been aware of their concerns.

*Suggest an alternative or additional research method giving one reason for your choice. (3)*

The researcher could have also used covert naturalistic observations to observe the participants interacting in a CBC environment, such as a digital seminar. This would have produced results with high ecological validity, assuming the participants would behave in natural ways as they would not know they are being observed. In this way, she would not only rely on the participants to provide a description of the CBC, but also observe the communication dynamics within a CBC context herself.

### Question 2

*Describe the ethical considerations that were applied in the study and explain if further ethical considerations could be applied. (6)*

The participants were asked to sign informed consent forms and were fully debriefed after the interviews were completed. They were guaranteed anonymity and confidentiality. At the end of the interviews the researcher carried out a focus group with ten female participants where they were asked to discuss their experiences of being in a CBC environment. However, because participant quotes and stories were used in the final report, this may mean their identities could be revealed as it is difficult to lose people in a small qualitative setting as the voices and stories may be recognizable. It should have been part of the consent process to make it clear to the participants that what they said may well be used as a quote in the published report to allow them the chance to reconsider if they want to take part in a focus group or not.

### Question 3

*Discuss the possibility of generalizing/transferring the findings of the study. (9)*

The study offers very little scope for generalization outside of its setting. It is a case study of one particular university in the USA with a sample weighted heavily in favour of one gender (female), even though the primary focus of the case study is gender-related behaviour. There is some possibility of representational generalization to other universities who run a CBC program. However, it is not clear whether all the participants (both male and female) would agree with the main findings of the report. It is also not clear how or why the participants were chosen to take part in the focus group or if the focus group sample was deemed representative of the unstructured interview group sample. Given the researcher's gender, it may be she chose participants for the focus group that reflected her own experiences as a female within a CBC setting, which again limits the generalizability of the findings.

## Scenario 2

The aim of this study was to investigate the effectiveness of drama therapy and art therapy on crime rates with young offenders who commit petty crime in the Netherlands and Germany. Petty crime is defined as low-level or less-serious crime such as stealing from shops or spraying graffiti on walls. Previous research had suggested such therapies were not good value for the tax payer and there was a possibility that future governments may reduce funding.

Two researchers (one male; one female), working in a university social science department, used surveys to collect data from 42 experienced art therapists working in five institutions in the Netherlands and Germany who were found using snowball sampling. They were asked to sign informed consent forms and were guaranteed anonymity and confidentiality. The survey asked questions about the effectiveness of drama therapy and art therapy on crime rates with young offenders, which were scaled from one through to five. For example, one question was: How effective do you think art therapy has been on helping young offenders you have worked with transition into a non-criminal lifestyle? There was a space at the end of the surveys for the participants to add further thoughts. The surveys were conducted on a digital internet platform. The results were published in a peer-reviewed journal and quotes from the participants were used to add support for the quantitative results.

The overall results showed drama and art therapy was seen as an effective way to help young offenders deal with their emotional problems; it reduced the chances of young offenders reoffending; it required more funding to make it more accessible for more young people. Some participants expressed concern that funding may be cut in the future and they worried about the effect on the young people they worked with.

### Question 1

Identify the research method used and outline two characteristics of the method. (3)

Describe the sampling method used in the study. (3)

Suggest an alternative or additional research method giving one reason for your choice. (3)

### Question 2

Describe the ethical considerations in reporting the results and explain additional ethical considerations that could be taken into account when applying the findings of the study. (6)

### Question 3

Discuss how a researcher could ensure that the results of the study are credible. (9)

## Answers

### Question 1

*Identify the research method used and outline two characteristics of the method. (3)*

The research method is a quantitative survey to investigate the effectiveness of drama therapy and art therapy on crime rates with young offenders who commit petty crime in the Netherlands and Germany. Quantitative surveys usually involve tightly focused questions that can be answered by placing a number on a scale.

*Describe the sampling method used in the study. (3)*

The sampling method used in the study was snowball sampling, which means some initial therapists who are already in a study helped the researcher to recruit more participants through their social network. This is particularly useful for gaining access to subgroups or people who might not otherwise allow themselves to be interviewed. This may have meant the therapists decided that being involved in the study would bring benefits to themselves or the profession.

*Suggest an alternative or additional research method giving one reason for your choice. (3)*

An additional research method could be the use of unstructured interviews. These are interviews where the questions are not prearranged. They contain open questions and are informal, free flowing, and resemble a probing conversation. These will produce in-depth, rich and nuanced data and allow the researcher to go beyond the results of the survey. They allow the researcher to be creative and adapt to the situation, which meant they could have asked follow-up questions to any response the therapists gave.

### Question 2

*Describe the ethical considerations in reporting the results and explain additional ethical considerations that could be taken into account when applying the findings of the study. (6)*

The participants were asked to sign informed consent forms and were guaranteed anonymity and confidentiality. However, the qualitative nature of one part of the survey may mean the therapists' identities could be revealed as their responses may be recognizable. It should have been clear in the consent process to make sure the participants knew that what they said may well be used as a quote in the published report to allow them the opportunity to consider how much information they may wish to reveal in the qualitative element of the survey. Moreover, the political nature of the debate (regarding funding for these types of therapies) should mean the authors take great care to make sure the identities of the participants are completely protected. Social science research can influence public opinion, which in turn influences government decisions and so greater care should have been taken to produce more in-depth and less one-sided results.

### Question 3

*Discuss how a researcher could ensure that the results of the study are credible. (9)*

The results can be seen to lack credibility because they state the therapies are effective, but this was based on a sample of therapists. It would be expected for therapists to claim their work was effective. Therefore, the researchers could have used triangulation to help ensure that the results of the study were more credible. Triangulation is the validation of data through cross-verification from two or more sources. For example,

they could have used methodological triangulation, which would have meant using different methods such as unstructured interviews and observations to produce more in-depth data. They also could have researched the young offenders themselves to discuss how effective they thought the therapy was. The researchers could also have observed the art therapists at work with the young offenders and then followed up with a focus group with the therapists and young offenders to discuss their experiences.

They could also have used theoretical triangulation, which would involve the search for evidence or approaches that could contradict their interpretation or the interpretation of their participants. For example, the provision of therapy for young offenders can be seen through a conservative political lens by questioning to what extent the tax payer should pay for therapy for young offenders who commit petty crime. Such a critical viewpoint might have stimulated the participants to provide more in-depth justification for their work. Finally, the researchers could have used researcher triangulation by using other researchers who would bring different perspectives and experience that might challenge the findings. For example, they could have invited researchers or participants who had a critical view of therapy for young offenders (such as serving police officers) to check or peer review their work and suggest improvements for future research.

