Evaluating Research and Evidence

How to judge the strengths and weaknesses of a piece of research or evidence, and how to explain ways to research or test a claim.

Question 2 gives you a source that describes some **research** or **evidence**, for example a student's project, a survey or a news report. You judge how good it is, and you suggest how a claim could be **researched or tested**. Both skills use the same ideas: where information comes from, how it was gathered, and whether it can be trusted.

2.1 Evaluating research, evidence and claims

Primary and secondary research

	Primary research	Secondary research
What it is	Information you collect yourself	Information someone else already collected
Examples	Interviews, surveys, questionnaires, observation, experiments	Books, websites, reports, official statistics, news articles
Strength	Fits your exact question, up to date	Quick, cheap, often large amounts of data
Weakness	Slow, small sample, can be biased	May be out of date, biased or not about your question

Qualitative and quantitative evidence

- **Quantitative** evidence is numbers (percentages, totals, averages). It is good for showing size and trends.
- **Qualitative** evidence is words, opinions and experiences. It is good for showing reasons, feelings and detail.

A strong piece of research often uses both.

Questions to judge a piece of research

Use these headings to find strengths and weaknesses, then **explain** each one.

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Check	Strength looks like	Weakness looks like
Sample	Large, random, includes different types of people	One person or group, too few, only friends or volunteers
Representative	Sample matches the population being studied	A single business, school or town used to speak for a whole country
Method	Right method for the question, more than one method (**triangulation**)	One method only, a poor method for this question
Source and author	Expert, independent, named, reliable organisation	Unknown author, personal opinion, a group that gains from the result (**vested interest**)
Bias	Balanced, fair questions, several viewpoints	Leading questions, selects only helpful facts
Date	Recent and relevant	Old, or about a different place or time
Ethics	Permission, confidentiality, no harm	Secret recording, no permission, personal details revealed
Accuracy	Data recorded properly, checked	Noisy room, notes not kept, hearsay, estimates

Never just name a point. Name it, say why it matters, and link it to the claim: "Only one manager was interviewed, so the results may not be typical of all building firms, which makes it hard to say crime is rising nationally."

Strengths and weaknesses answers

For a question such as "Explain the strengths and weaknesses of the research in Source 3" (up to 8 marks):

1. Write about **both** strengths **and** weaknesses. An answer with only one side cannot reach the top level.
2. Use **several different** points from the checklist, not the same point five times.
3. Use **details from the source** (the sample, the method, the place, the date).
4. **Explain the effect**: "This means the findings may be unreliable because ..."
5. Finish with a short **overall judgement**: how far can the research be trusted?

TRY IT

A student interviews three classmates at lunch about whether homework helps learning, and says "Most students think homework is pointless." **Give one strength and one weakness of this**

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research.

Strength: it is primary research that gives personal, qualitative views of real students. **Weakness:** three classmates is a very small sample and may not represent all students, so "most students" is a generalisation the evidence cannot support.

Claims and generalisations

A **claim** is a statement that something is true, which may or may not be supported. A **generalisation** is a claim about a whole group made from a few cases ("all", "most", "everyone"). When you evaluate research, ask: **does the evidence really support the claim**, or does it only support a smaller claim?

2.2 Suggesting ways to research or test a claim

Many papers ask: "Explain how this claim could be tested. You should consider the research methods and evidence that could be used." This is about **designing** research, so think like a researcher.

Step 1: understand the claim

Restate it in a few words and decide what you would need to find out. For "The amount of vehicle crime is increasing nationally", you need figures **over time** and **across the country**.

Step 2: choose methods and say why

Method	Good for	Limit
Questionnaire or survey	Lots of people, numbers, quick comparisons	People may not tell the truth, low response, shallow answers
Interview	Detail, reasons, personal experience	Slow, small sample, interviewer can influence answers
Focus group	Discussion, different views at once	A strong voice can dominate
Observation	What people **do**, not what they say	Takes time, people act differently when watched
Case study	Rich detail on one person, place or business	Not typical of everyone
Experiment or trial	Testing cause and effect	Hard to control, ethical limits
Secondary research	Official statistics, past studies, news, reports	May be old, biased or not exactly the right question

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Step 3: say what evidence you would collect, from whom

- **Who**: the right people (experts, affected people, officials) and a **wide sample** so results are fair.
- **Where**: different places, not just one town.
- **When**: over time if the claim is about change.
- **What**: statistics, personal testimony, documents, expert reports.

Step 4: explain why this would give reliable evidence

Link each method to **testing the claim**. "Police and insurance company statistics for the last ten years would show whether the number of thefts has risen, and because they cover the whole country the results are more reliable than one person's opinion."

A top-level answer

- A **range** of methods and evidence, each **explained**, not just listed.
- Choices that are **credible** and clearly related to the claim.
- Some awareness of **limits**, and how using more than one method (triangulation) helps.

NOTE

Name at least **two different methods** and at least **two types of evidence**, and for each say **why** it would help test the claim.

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