

Critical Thinking flaw taxonomy

The recurring broken bridges between reasons and conclusions, with a method for naming the exact failure.

THE SHORT ANSWER

UAT-UK names **Detecting Reasoning Errors** as one of seven Critical Thinking question types. The labels below are a study tool, not an official marking scheme. For every argument, isolate the conclusion, grant the stated reasons, then ask what extra bridge must be true. The best answer attacks that bridge precisely.

Checked against the sources named in this guide, August 2026. British English. Free to share.

1 Map the argument before judging it

Critical Thinking questions use everyday written language and require no subject-specific knowledge. For test purposes, UAT-UK tells candidates to accept the stated reasons as true. Your job is therefore not to fact-check the topic or announce your opinion. It is to test whether those reasons establish the conclusion.

Use three lines:

1. **Conclusion:** what is the writer trying to make me accept?
2. **Reasons:** which statements are offered in support?
3. **Bridge:** what unstated claim must connect them?

The flaw normally lives in line three.

1 The tell

If an answer merely says the conclusion is controversial, it has not exposed the reasoning error. A flaw answer should explain how the reasons could be true while the conclusion still fails.

2 Six high-value flaw families

Working label	Broken bridge	Fast question
Cause from association	Two things move together, so one caused the other	Could cause run backwards, or a third factor explain both?
Selection bias	The observed group stands for everyone	Who chose, entered or disappeared from the sample?
Necessary becomes sufficient	One required condition is treated as enough	What else must also be true?
False choice	Two options are presented as exhaustive	Is there a third route or a mixture?
Weak analogy	A shared feature is made to carry the conclusion	Is the relevant feature actually shared?
Slippery chain	One step is said to trigger a severe sequence	Which link lacks support or a stopping point?

3 Worked example: find the missing comparison

Two more labels are worth recognising: **equivocation**, where a key word changes meaning, and **circularity**, where the conclusion is quietly used as its own support.

Worked example Optional seminars and higher scores

After Northbridge College introduced optional morning reasoning seminars, students who attended scored higher on a TARA practice test than students who did not attend. The seminars therefore caused the improvement. All applicants should be required to attend them.

Which criticism best identifies the main flaw?

- A. Some applicants may have no intention of applying to any university after college.
- B. Seminar attendees may already have been stronger or more motivated.
- C. A TARA practice test includes both Critical Thinking and Problem Solving questions.
- D. Morning reasoning sessions may be less convenient for commuters than afternoon sessions.
- E. Northbridge College cannot require students at other colleges to attend its own seminars.

Correct: B. Self-selection offers a rival explanation for the score difference, so attendance and performance do not establish cause.

Trap: D may be a practical objection, but it does not expose the inference from higher attendance-group scores to seminar-caused improvement.

The argument also jumps from an observed association to a policy for everyone. But the earliest broken bridge is causal. If the groups differed before the seminars, compulsion is built on an effect that has not been isolated.

4 How the distractors are built

Wrong options often belong to one of four families:

- **True but idle:** a statement may be accurate yet leave the inference untouched.
- **Topic objection:** it attacks the policy or subject rather than the reasoning.
- **Minor weakness:** it notices wording but misses the bridge carrying the conclusion.
- **Reverse task:** it strengthens the argument when the stem asks for a flaw, or weakens it when the stem asks for an assumption.

Before reading options, complete this sentence: “The conclusion fails unless...” The best answer should collide with your completion.

2 Try it

Rewrite the seminar argument so the conclusion becomes safer: randomly assign comparable volunteers to seminar and no-seminar groups, test both before and after, and compare the change. You are not designing a perfect study; you are repairing the precise missing bridge.

5 Match question type to operation

UAT-UK's Question Guide names seven Critical Thinking types. Do not use one vague "critical thinking" method for all seven.

Official question type	Your operation
Identifying the Main Conclusion	Separate the claim being established from reasons and intermediate conclusions
Drawing a Conclusion	Choose what follows without adding a stronger claim
Identifying an Assumption	Find the necessary unstated bridge
Assessing the Impact of Additional Evidence	Ask whether the new fact strengthens, weakens or leaves the bridge unchanged
Detecting Reasoning Errors	Name how the bridge fails
Matching Arguments	Ignore topic and match the structure of reasons and conclusion
Applying Principles	State the general rule, then find a case governed by it

6 A drill that creates transfer

For every missed flaw question, record four short fields:

1. conclusion in fewer than twelve words;
2. stated reasons in neutral language;
3. flaw family and exact missing bridge;
4. one new argument with the same structure but a different topic.

The fourth field matters. If you can recognise selection bias only when the passage concerns education, you have memorised a story rather than learned a reasoning pattern.

7 Sources

UAT-UK, TARA Question Guide

Argument structure, assumptions, the seven official Critical Thinking types and worked official examples. [Read the Question Guide.](#)

UAT-UK, TARA Content Specification

Critical Thinking as assessing whether arguments establish their claims. [Read the specification.](#)

The six flaw-family labels are UniGenius study labels. The seven question types are UAT-UK's. The worked item is original and is not a recalled live question.