

4.5 Human progress: synthesise source cards

Name: _____ Class: _____ Date: _____

Total: 24 marks

KEY WORDS Information literacy 信息素养

Objective

Combine several short sources by theme, evaluate their scope and write a balanced recommendation. The museum, cards and observations are fictional local practice sources.

1 Key knowledge and worked examples

■ Key knowledge: organise by issue, not one source at a time

Information literacy 信息素养 includes asking who produced a source, what it measures and what it leaves out. A visitor comment can describe experience; it cannot establish the cost of a technical system. A manager may know costs but still need direct evidence about visitor understanding.

A synthesis connects sources around a shared issue. Build a small theme matrix before writing. “Card A says... Card B says...” may list information without comparing it. Keep agreement, difference and uncertainty distinct. Cite the supplied card labels; these are classroom source identifiers, not real publication references.

■ Three fictional source cards

Card A — visitor feedback, 6 September. Twenty visitors used an optional phone guide at the Riverside Museum. Twelve said its short explanations helped them follow the exhibition. Four reported that the wireless connection failed in one gallery. The card does not record whether those four were among the twelve positive respondents. It contains no information about people who did not use a phone.

Card B — staff observation, 8 September. Staff watched ten visitors using printed guide cards in the same exhibition. Six turned back to check a definition while looking at an object. Staff did not test those visitors’ understanding. The cards remained usable during a wireless outage.

Card C — manager’s note, 10 September. Printed cards require replacement when exhibition information changes. The museum has not calculated printing costs or the cost of maintaining a phone guide. It plans to keep both formats available during a trial and invite feedback from visitors who use neither.

■ Worked example: a theme matrix

Known: the cards describe different groups and different kinds of evidence. Their counts should not be combined into a single success rate.

Theme	Card A	Card B	Card C
Understanding	Reported usefulness	Rereading observed	No learning measure
Access	Connection failures	Works during outage	Invite non-users
Costs	Not given	Not given	Unknown

Model synthesis: “Both formats offer ways to revisit explanations, but evidence of learning remains limited: phone users reported usefulness (A), while staff observed rereading without testing understanding (B). Printed cards work during outages (B); comparative costs are still unknown (C).” The paragraph compares themes and preserves evidence differences rather than declaring one format the winner.

2 Practice

2.1 Identify which card reports a connection problem and which card says comparative costs are unknown. [2]

2.2 Explain why staff seeing six people reread a definition does not prove that those people understood it. [2]

2.3 A student subtracts four connection complaints from twelve positive reports and writes, “Exactly eight visitors found the phone guide helpful.” Explain the mistake using Card A. [3]

2.4 Give ONE access-related comparison supported by the cards and ONE missing piece of evidence needed to judge costs. [3]

3 Exam-style questions

3.1 Write a 60–80 word synthesis about understanding and access. Use Cards A and B, compare rather than list, and make clear where understanding was not tested. [6]

Solutions

2.1 Card A; Card C.

2.2 Rereading is an observed action, not a demonstrated learning result; no understanding test was administered. Rereading could reflect interest or confusion.

2.3 Twelve people reported usefulness; the overlap with the four connection complaints is unknown. A person could both find explanations useful and experience an outage, so subtracting assumes mutually exclusive groups without evidence.

2.4 Printed cards work during an outage whereas the phone guide encountered connection problems ($2 \times B1$ for a clear two-sided comparison). Costs such as printing/replacement or phone-guide maintenance need calculating. Neither option's total cost is supplied.

3.1 Six points ($6 \times B1$): phone users' reported usefulness accurately scoped; twelve of twenty; printed rereading observation; no understanding test; outage comparison; coherent thematic synthesis with A/B attribution. Sample: "The phone guide's explanations were useful according to twelve of twenty participating visitors (A), while six of ten printed-card users were observed checking a definition again (B). Both formats may help visitors revisit information, but observed rereading does not demonstrate understanding, and neither card supplies a direct learning comparison. Printed cards remained usable during an outage (B), whereas four phone users reported connection problems (A)."

3.2 Eight points ($8 \times B1$): clear trial recommendation; Card A accurate; Card B accurate; Card C accurate; access trade-off explained; a meaningful understanding test or visitor feedback plan; comparative cost evidence proposed; coherent qualified language. Sample: "Keep both formats during the trial rather than select a permanent winner now. Twelve phone users reported useful explanations, but four reported connection problems (A). Printed cards allow definitions to be checked and remain available during an outage (B). The manager also notes that printed information needs updating and that comparative costs have not been calculated (C). A choice of formats could therefore protect access while the museum learns more. Collect a simple understanding task after visits and feedback from people who currently use neither format. Also record printing, replacement and phone-guide maintenance costs over the same period. Review this evidence together before deciding what to keep. The present cards support a trial, not a proven best format."