

Exercise walk-through

1.1

Data, decisions and accountability: supported rehearsal

International Baccalaureate · IB Diploma · Digital Society · HL

Data, decisions and accountability: method

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Data are recorded values; information gives them contextual meaning. An algorithm maps inputs to outputs under specified rules. A prediction is not a cause.

Privacy concerns collection, access, use and retention; power includes who defines the goal and who can challenge a decision.

Data, decisions and accountability: reasoning

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Missingness can arise from absence or failed access rather than low ability. Converting it to zero changes the inferred ability and can restrict opportunity.

Distinguish missing from observed zero, investigate causes, allow correction and test outcomes across affected groups. High average accuracy does not establish equal errors.

Data, decisions and accountability: transfer review

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A proposed variable needs direct relevance, school permission, data minimization and protection. Investigate connection failures and allow missing-data correction first where feasible.

More sensitive data do not automatically improve fairness and may create new privacy or exclusion risks.

Exercises 2.1·3.1

2.1 For the worked case, identify the evidence and a conclusion it can support. Explain one material limit. [3]

3.1 The developer proposes collecting family income to explain missing quizzes. Evaluate this response. Give a reasoned answer, evidence or method, and a relevant qualification.[3]

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2.1 Missingness can arise from absence or failed access rather than low ability. Converting it to zero changes the inferred ability and can restrict opportunity. Distinguish missing from observed zero, investigate causes, allow correction and test outcomes across affected groups. High average accuracy does not establish equal errors. Authored points for identifying relevant evidence, explaining a supported inference and a material limit.

3.1 The developer proposes collecting family income to explain missing quizzes. Evaluate this response. Give a reasoned answer, evidence or method, and a relevant qualification.[3]

3.1 A proposed variable needs direct relevance, school permission, data minimization and protection. Investigate connection failures and allow missing-data correction first where feasible. More sensitive data do not automatically improve fairness and may create new privacy or exclusion risks. Authored points for a relevant judgement, reason tied to the case and justified qualification or method. Accept a supported alternative.