Planning studies for Paper 4

Lesson 7.2.7 | A Level issues, debates and methods

Core ideas

Paper 4 Section B offers one planning question for each specialist option; answer one question from the four choices, normally from an option you studied. The plan is worth 10 marks and structured evaluation questions total 14 marks.

Unlike Paper 2, Paper 4 general planning features include aim(s) and hypotheses, procedure, sample and sampling technique, ethics, validity, reliability, types of data, data analysis and use of descriptive statistics. Give sufficient detail for replication.

For experiments, specify the type, IV, DV, design, controls/standardisation and counterbalancing or random allocation where applicable; add location for a field experiment. Distinguish recruiting a sample from allocating participants to conditions.

For self-reports, include open/closed format, example questions, scoring/interpretation and questionnaire technique (paper, online or postal), or interview format (structured, semi-structured or unstructured) and technique (face-to-face or telephone).

For case studies, specify the participant/unit, content, two or more collection techniques and analysis/interpretation/triangulation. For observation, specify overt/covert, participant/non-participant, naturalistic/controlled, structured/unstructured and number of observers.

For longitudinal plans (including longitudinal experiments), specify tests/tasks, scoring, frequency/interval, re-contacting participants and controls/standardisation. Paper 4 may require evaluation of all aspects of the plan.

Key terms

Replicable procedure: A procedure described precisely enough for another researcher to repeat it.

Descriptive analysis: Summarising and interpreting observed data using tables, graphs or measures such as means and standard deviations.

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Further detail and evidence

For correlational plans, specify both co-variables, measurement of each, and the relationship/scatter graph. Match the analysis to the data: for example, compare group means and standard deviations or interpret a scatter graph; inferential-test calculations are not added requirements.

Ethics should be practical: informed consent, withdrawal without penalty, minimising harm, secure coded data and suitable debriefing. Explain how each safeguard applies to the actual specialist scenario rather than listing ethical words.

Paper 4 plan: include aims/hypotheses, sample/sampling, ethics, replicable procedure, validity/reliability, data type, analysis and appropriate descriptive statistics. The plan is worth 10 marks and structured evaluation 14 marks. Choose one of four option-based planning questions and follow the specified method/features.

Experiment: identify laboratory/field type, IV conditions, operationalised DV, design, controls and allocation/counterbalancing where appropriate; field work also needs location. Self-report: give example open/closed items and scoring, questionnaire technique (paper/online/postal), or interview format and face-to-face/telephone technique.

Observation: specify overt/covert, participant/non-participant, setting, structured categories/unstructured notes, number of observers and recording. Correlation: define two co-variables, both measures and anticipated relationship/scatter graph. Do not claim a manipulated cause.

Case study: define the person/unit, information, at least two techniques and analysis/triangulation. Longitudinal: state tasks, scoring, interval, re-contact and controls. Give enough detail for replication without unnecessary invented equipment or risky procedures.

Applying the ideas

Example outline: compare two accurate menu versions with identical items/prices, varying only positions. Recruit consenting adults from a defined setting and randomly allocate versions. Record the chosen item, preserve withdrawal/privacy and summarise choice frequencies. Standard instructions and fixed materials support reliability and control; limited hypothetical choice reduces real-spending validity.

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Continued

Worked example: Plan a field experiment in consumer psychology on background music and restaurant spending. Include a hypothesis, design, data analysis and one ethical safeguard. Aim to investigate whether music condition affects spending per diner. A non-directional alternative predicts a difference in spending between the music and no-music conditions; the null predicts no difference. Recruit 60 consenting adult diners by opportunity sampling across six comparable lunch sessions, with 10 per session. Use independent groups and pair the sessions by weekday and lunchtime, randomly allocating one session in each pair to music and the other to no music. Use the same instrumental playlist at one fixed safe volume in music sessions; keep ambient noise, menu, prices, staff instructions and session duration as similar as possible and record spend per diner, excluding identifying payment details. Compare the conditions using means and standard deviations. Obtain appropriate consent for research participation and protect withdrawal and privacy; explain the study without pressure to spend. Consider time-slot differences as a possible confound.

Worked example: Evaluate one validity issue and one reliability issue in an organisational questionnaire about job satisfaction. Validity could be reduced if workers think managers can identify them, because fear of consequences may lead to socially desirable answers. Use questionnaires without names or identifying details, deny managers access to individual answers, and report only group summaries to reduce that pressure. Reliability could be reduced if different staff receive different wording or scoring instructions. Use the same items, response scale and scoring rules for everyone and check that repeated measurement is consistent when job conditions have not changed.

Evaluation and connections

Evaluate all aspects of the actual plan, including sample/generalisability, ethics, practicality, validity and reliability. Link each strength/weakness to a consequence and feasible improvement. Preserve the supplied requirements. Unlike Paper 2, Paper 4 expects the wider planning features, including hypotheses, sampling and ethics.

Hint: check the question's method and context, then use a plan checklist: aim/hypotheses; sample; operationalised measures; replicable procedure; ethics; validity/reliability; data and descriptive analysis. Support each evaluation point with a consequence for this plan.