

Options and fieldwork

IB DP Geography HL option themes and fieldwork full package

1. Options and fieldwork at a glance

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IB Geography HL: the seven option themes (SL two, HL three; each equipped here as a kit) and the fieldwork inquiry cycle with its sampling strategies and statistics.

Must-know: hydrograph with the urban lag effect; the hazard-risk product with Tohoku; Butler stages and carrying capacity; epidemiological transition; Burgess and Hoyt; megacities; random, systematic, stratified sampling; Spearman 0.714 versus 0.738 (eight untied pairs, two-sided 5 percent) and chi-squared 5.2 vs 3.84 decisions.

2. The seven option kits

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Freshwater: the drainage basin and storm hydrograph; urban = short lag, high peak; hard versus soft management. Coasts: erosion and deposition landforms; groynes shift the problem, managed realignment absorbs it. Extreme: glacial and arid process pairs; opportunity versus challenge.

Hazards: margins drive the hazard; risk is hazard times exposure times vulnerability (Tohoku 9.0). Tourism: Butler stages, carrying capacity, Venice caps. Food and health: the epidemiological transition; famine as access failure. Urban: Burgess rings, Hoyt sectors, megacity stress and regeneration.

3. Fieldwork: inquiry and sampling

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The cycle: a place-specific question, directional (and null) hypotheses, methods with risk assessment, sampling, presentation, analysis, conclusion, evaluation. Sampling: random (unbiased, may miss clusters), systematic (even, transects), stratified (proportional, needs prior knowledge); point, line and quadrat frames.

Analysis: descriptives first, then inferential decisions stated as statistic, critical value, decision - For eight untied pairs, Spearman 0.714 is below the exact two-sided 5 percent critical value 0.738: do not reject no rank association. Chi-squared 5.2 exceeds 3.84 for a 2 by 2 independence test with 1 degree of freedom, independent observations and adequate expected counts: reject independence at 5 percent. The worked design: pedestrian density per 2 minutes every 100 m along four transects from a plaza.

Check yourself

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Hydrograph anatomy with the urban contrast; the risk product with Tohoku.

Butler in order; carrying capacity management; the epidemiological stages.

Burgess versus Hoyt applied; the three samplings strengths and costs.

The fieldwork cycle end to end; both statistics decisions with critical values.