SELECTED WORK

First- and Last-mile Connectivity

A research-design and instrument-development sample

PROJECT TYPE	Quantitative road and transport geography research focused on first- and last-mile travel.

Study focus

The study examined how travellers connect from Festac to major interchange and destination areas around CMS and Marina. The design separated access to the main journey from movement between the final stop and destination.

Research design

Element	Design choice
Population	Commuters using the selected corridor
Approach	Structured questionnaire with route and experience measures
Core variables	Access time, waiting time, transfer count, cost, reliability, comfort and safety
Analysis	Descriptive summaries and tests of relationships between connectivity and travel experience

Example research questions

- What travel modes are used for first- and last-mile connections?
- How do waiting time and transfer frequency affect total journey experience?
- Which factors best explain commuter satisfaction along the corridor?
- What improvements would reduce avoidable delay and cost?

Instrument structure

Section	Measures
A. Traveller profile	Trip purpose, frequency and broad origin area
B. First mile	Access mode, distance, waiting time and cost
C. Main trip	Travel mode, transfers, reliability and crowding
D. Last mile	Final connection, distance, time, safety and convenience
E. Overall assessment	Satisfaction, key constraint and preferred improvement

Sample hypotheses

- H01: First-mile access time has no significant relationship with overall journey satisfaction.
- H02: Transfer frequency has no significant relationship with total travel time.
- H03: Last-mile reliability has no significant relationship with perceived accessibility.

FormalPen contribution

The work demonstrates how a broad transport topic can be narrowed into a measurable corridor study with aligned questions, variables, hypotheses and questionnaire sections.

PORTFOLIO NOTE This sample presents the research architecture, not participant data or a completed client's submission.