Questionnaire Design and Data Analysis
問卷設計與數據分析

GESC9018 / HS 27-015-25 (21)

Application Code: 2070-1247NW

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Course Highlights

This course is designed to provide basic knowledge on the design of questionnaire and the commonly used statistical techniques for analysis of survey data and should be useful for those who employ questionnaire survey as a research methodology.

Course Details

This is a 30-hour course designed to provide basic knowledge on the design of questionnaire and the commonly used statistical techniques for analysis of survey data. This course is intended to give a holistic view of the topics below and in a less technical manner. Emphasis will be put on the applications of the techniques. Examples on questionnaires, reporting of survey results and the use of commonly available computer software will be illustrated. Those who employ questionnaire survey as a research methodology will find this course helpful.

- **Questionnaire design:** initial considerations; clarifying concepts; determining question types, format and sequence; pretesting the questionnaire; administering the questionnaire.

- **Sampling approaches and considerations:** the sampling process (defining the target population, choosing the sampling frame, selecting the sampling method, probability sampling); determining sample size; implementing the sampling plan.

- **Measurement and scaling:** what is a concept? Measurement in business research; how to measure concepts; types of scales (nominal, ordinal, interval, ratio); frequently used measurement scales; practical decisions when developing scales; criteria for assessing scales (reliability, the Cronbach's α, validity); how to develop a scale.

- **Basic data analysis techniques:** data preparation (screening, editing, dealing with missing data, coding, transformation and entering data); descriptive statistics (frequency distribution, histograms, bar charts, pie-charts, the normal distribution, measures of central tendency, measures of dispersion); outliers.

- **Testing hypotheses:** understanding hypothesized relationships (sample statistics versus population parameters, type I and type II errors); hypothesis testing (choosing the appropriate statistical technique, other considerations in hypothesis testing, single group hypothesis testing); multiple group hypothesis testing (chi-square test for contingency table, t-test, and 1-way analysis of variance).

- **Correlation and regression:** types of relationships between variables (presence, nature of relationships, direction, strength of association); variable relationships and co-variation; correlation analysis (Pearson bivariate correlation, practical significance of the correlation coefficient, measurement scales and correlation); statistical techniques and data analysis; simple regression analysis; multiple regression analysis (statistical versus practical significance, multicollinearity and multiple regression).

- **Other multivariate techniques:** exploratory factor analysis (deriving factors, number of factors); interpreting factors (example of factor analysis). Example with analyses using SPSS will be given.

Tutor	:	Mr LEUNG Kam To Dominic Savio
Course Date	:	**24 February 2023 (Every Friday) – tentative**
Course Time	:	7:00 – 10:00 pm
Course Duration	:	10 meetings
Course Fee	:	**$4,100**
Medium of Instruction	:	Cantonese (supplemented with English)
Venue	:	HKU SPACE Kowloon East Campus **– to be confirmed** 28 Wang Hoi Road, Kowloon Bay, Kowloon (Exit B, Kowloon Bay MTR Station)
Application Deadline	:	**31 Jan 2023**

Enrolment Methods

1. Complete the "Application For Enrolment Form SF 26" and return with the fee paid by a crossed cheque payable to "HKU SPACE" to College of Life Sciences and Technology, HKU SPACE, 13/F, Fortress Tower, 250 King's Road, North Point, HK (Attn: Ms. Winnie Choi).
2. Bring the completed form, together with the course fee and any required supporting documents to any of the HKU SPACE Enrolment Centre.
3. Alternatively, use the 24-hour Online Enrolment Service at https://hkuspace.hku.hk/prog/questionnaire-design-and-data-analysis.

01 Dec 2022