STA 3180 Statistical Modelling: Survey Design

STA 3180 Statistical Modelling - Survey Design Lecture Notes

Survey design is an important part of statistical modelling. It involves the creation of a survey that will collect data from a population in order to answer a research question. Survey design involves the selection of the survey method, the development of the survey instrument, and the administration of the survey.

Key Concepts

Survey Method: The method used to collect data from a population. Examples of survey methods include online surveys, telephone surveys, mail surveys, and face-to-face interviews.

Survey Instrument: The survey instrument is the questionnaire or survey form that is used to collect data from the population. It should be designed to be easy to understand and answer.

Administration of the Survey: The administration of the survey involves the distribution of the survey instrument to the population, the collection of the data, and the analysis of the data.

Coding Example

```
Start of Code
// This code example demonstrates how to create a survey instrument using the R programming language.
# Create a vector of questions
questions <- c("What is your age?", "What is your gender?", "What is your occupation?")
# Create a vector of possible answers
answers <- c("18-24", "25-34", "35-44", "45-54", "55-64", "65+", "Male", "Female", "Student", "Professional", "Retired")
# Create a data frame to store the survey data
survey_data <- data.frame(questions, answers)
End of Code
```

Practice Questions

Q1. What is the purpose of survey design?

A1. The purpose of survey design is to create a survey that will collect data from a population in order to answer a research question.