

Data Collection Techniques

Length: 3 Days

Summary: The most difficult step in analysis is often getting clean data, particularly in the context of your organization's data management. You will learn best practices to combat common obstacles in data collection. You will gain strategies for identifying the best types of data to address your needs, methods for collecting primary and secondary data, and diverse research methods.

Learning Objectives:

- Identify needs before collecting data
- Select appropriate means of data collection
- Design a viable, cost-effective data collection plan
- Determine appropriate sample size
- Use secondary data to support studies and analyses
- Improve online data research methodologies
- Design high-quality surveys
- Obtain relevant, useful information through professional interviews and observations

Audience: This course is designed for individuals who need to become skilled at gathering data for use in analysis projects.

COURSE CONTENT

Module 1: The Analytics Process Model

- The Analytics Process Model
- Applying the Analytics Process Model to Small Analyses

Module 2: Understand the Organization and Define the Problem

- Understanding the Organization Overview
- The Importance of Understanding the Organization
- Defining the Organization's Objectives
- Exercise: Defining Organizational Objectives
- Assessing Your Research Audience
- Translating Research Audience Needs into Analyses Requirements
- The "Decision Problem" vs. the "Research Problem"

Module 3: Research Designs and Data Collection Methods

- Research Designs
- Overview of Primary and Secondary Data Collection Methods
- Developing a Hypothesis
- Linking Analytical Objectives to Organizational Objectives

Module 4: Planning the Data Collection Project

- Advantages of Planning
- The Project Charter
- The Components of the Project Charter

Module 5: Sampling

- Sampling Terminology and Definitions
- Sampling Overview
- Sample Size Calculation
- Sampling Techniques
- Sources of Sampling Errors

Module 6: Exploratory Research: Secondary Data

- Secondary Data Overview
- Internal Secondary Data
- External Secondary Data
- Advantages and Disadvantages of Secondary Data
- Data Integrity and the Internet

Module 7: Exploratory Research: Interviews

- Overview of Interviews
- Types of Interviews
- Interview Preparation
- The Interview Guide
- Professionalism
- Recording the Interview

Module 8: Descriptive Research: Surveys

- Parts of a Survey
- Survey Objective
- Open-Ended/Closed-Ended Questions
- Survey Design
- Levels of Measurement
- Determining Scales
- Sources of Possible Survey Error
- Increasing the Response Rate
- Electronic Survey Tools

Module 9: Exploratory Data Analysis

- Exploratory Data Analysis
- Analysis Toolpak Descriptive Statistics
- Data Description Report

Module 10: Preparing the Data

- Data Definition Files
 - Assessing Data Quality
 - Identifying and Handling Missing Data
 - Applying "Business Rules" to Data Quality
 - More Data Preparation Techniques
 - Documenting Assumptions and Rationale for Data Selection
 - What's Next?
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