Data-Driven Communications

Unit 2: Data Analysis

Course Overview

▶ Unit 1: Defining the Business Objective and Sourcing Data

▶ **Unit 2: Data Analysis**

▶ Unit 3: Data Visualization Principles and Processes

▶ Unit 4: Visualization Tools and Techniques

▶ Unit 5: Evaluating Data Visualizations

▶ Unit 6: Storytelling with Data

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Unit 2 Learning Outcomes

- ► identify and define data analysis methods and models
- ► differentiate data analysis methods and models
- ► classify data analysis findings
- ► evaluate data analysis findings
- ► summarize data analysis findings
- ► apply newly learned knowledge, skills, and abilities to real-world datasets

Why are Learning Outcomes Important?

► Every learning outcome ties back to course materials and content.

► Assessments are tied to each learning outcome.

► Test preparation

Unit 2 Topics

► Data Analysis Methods and Models
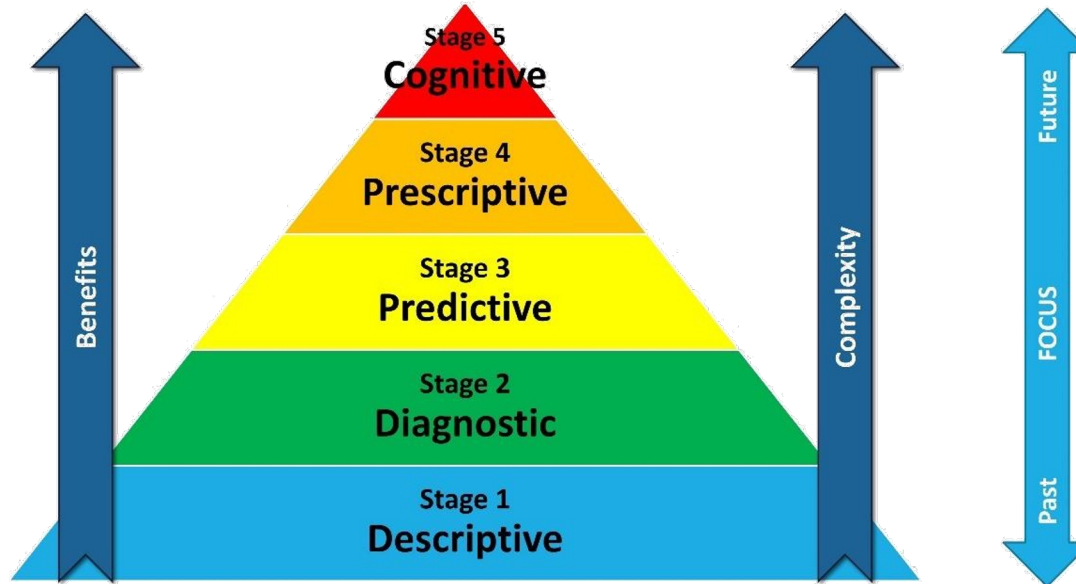
► Synthesizing Data Findings

Unit 2 Vocabulary

- ► cognitive analytics
- ► decision / diagnostic analytics
- ► descriptive analytics
- ► frequency distribution
- ► predictive analytics
- ► prescriptive analytics
- ► qualitative data
- ► quantitative data

The Stages of Analytics Development

Stages of Analytics Development

Quantitative and Qualitative Data and Methods

Quantitative

- Data
  - Weight
  - Height
  - Population
  - Units Purchased
- Methods
  - Experimental research
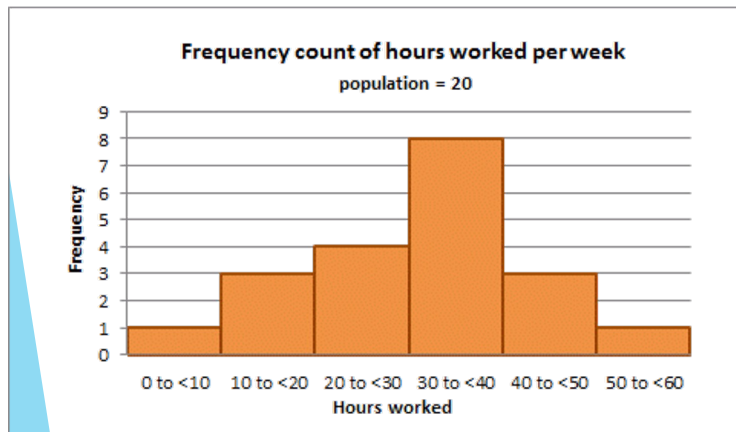 - Survey research
  - Content analysis

Qualitative

- Data
  - Colors
  - Addresses
  - Names
- Methods
  - Focus groups
  - Interviews
  - Observations
  - Case Studies
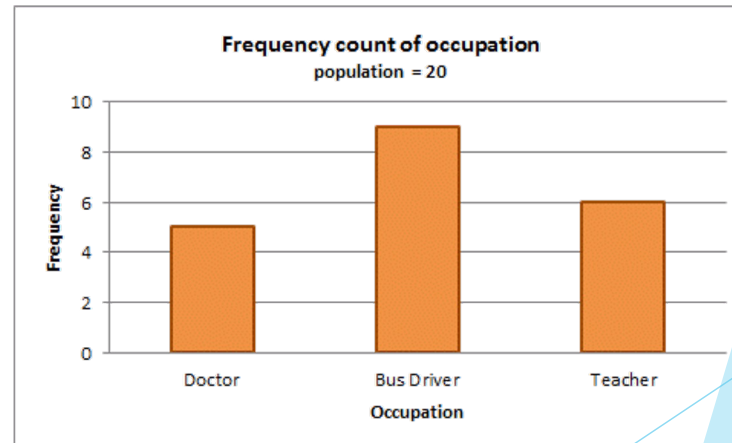
Quantitative and Qualitative Frequency Distributions

Quantitative data

Frequency count of hours worked per week
population = 20

Qualitative data

Frequency count of occupation
population = 20

Conclusion

Unit 2 Learning Outcomes:

► identify and define data analysis methods and models

► differentiate data analysis methods and models

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What's next?

Unit 3: Data Visualization Principles and Processes