Data: An Overview

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1. Analyze the source and nature of data using Bloom's Taxonomy, with a focus on understanding the differences between population and sample, and the importance of random and non-random sampling in research design.

2. Evaluate the process of framing simple research questions and designing effective questionnaires to collect primary data, while also exploring methods for compiling and tidying data for analysis.

3. Apply the concepts of classification of data, including understanding scales of measurement, variables, and attributes, to effectively organize and interpret data sets for research purposes.

4. Apply summarization techniques such as graphical representation and summary measures like mean, median, mode, range, standard deviation, IQV, and quartile deviation to analyze and present data in a clear and concise manner.

5. Demonstrate effective communication skills in report writing and audio-visual presentations to present data findings to diverse audiences in various application areas such as social science, health science, biology, economics, and marketing.

By the end of the course, students will be able to demonstrate proficiency in the collection, organization, analysis, and presentation of data in a variety of research contexts, setting a strong foundation for further studies and professional applications in data analysis and research.