

Kentucky Class Notes

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859.252.NOTE

PSY 216 Friedrich
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Test 1

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Ways of Knowing

- **AUTHORITY** can be an “expert opinion.” Someone who is supposed to know tells you something is true.
 - Examples:
 - We ask a doctor to diagnose sickness and believe what he or she says.
 - Children believe their parents when told to eat vegetables to be healthy.
 - We seek shelter when the weatherman says there is a tornado warning.
 - One problem with relying on authority is that we don't really question authority, and we'll believe something that is false.
- **RATIONALISM** is knowledge derived from reasoning.
 - Reasoning is one of the steps of the scientific method. With rationalism, we would stop at reasoning. In the scientific method, we would take the hypothesis and do an experiment.
 - A situation is analyzed and logical conclusions are drawn based on the information at hand.
 - Example of reasoning used to make something that isn't true.
 - Brazilians are great soccer players.
 - Andrea is Brazilian.
 - Andrea is a great soccer player. (no, she's not!)
- **INTUITION** is a personal experience of “feeling of knowing.”
 - Intuition could be a sudden insight that springs into consciousness.
 - While intuition isn't reliable, it can be used as inspiration for research.
- The **SCIENTIFIC METHOD** is a method for systematically asking questions about some natural phenomenon.
 - It relies on objective assessment.
 - IDEA → HYPOTHESIS → EXPERIMENT DESIGN → DATA COLLECTION → DATA ANALYSES
 - Statistical tests are used in data analyses.
 - Through the process of **INDUCTION**, we use the data analysis to evaluate the hypothesis.

Some Key Concepts

- A **POPULATION** is a complete set of individuals, objects, or scores that the investigator is interested in studying.
- A **SAMPLE** is a subset of the population.

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- Example: In order to investigate the effect of study time on test grade of college undergrads in the U.S., a psychologist selects 50 UK students to participate...
 - Population: College undergrads in U.S.
 - Sample: 50 UK undergraduate students
- A **STATISTIC** is number calculated on sample data and describes the sample, while a **PARAMETER** is a number calculated on population data and describes the population.
 - Example: finding mean height of psych majors at UK, measured the height of 200 psychology students.
 - Statistic? Mean height of 200 psychology students
 - Parameter? Mean height of psychology students
- A **VARIABLE** may have different values at different times, dependent on the conditions, while a **CONSTANT** does not have different values at different times.
- **INDEPENDENT VARIABLES (IV)**
 - An independent variable is also known as a manipulated factor.
 - It is the variable under control of the experimenter.
 - It is the variable considered to be the cause.
 - Example: effect of study time on test grade: study time is IV
- **DEPENDENT VARIABLE (DV)**
 - The dependent variable is the variable that the investigator measures.
 - It is the variable considered to be the effect.
 - Example: effect of study time on test grade: test grade is DV

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Scales of Measurement

Nominal Scales

- Nominal scales are scales of measurement with two or more categories that have no numerical properties.
 - Example: A questionnaire asks participants to give their gender: male or female.
 - There is no value attached to it, and no particular order is necessary.
 - Example: A questionnaire asks which type of car someone drives: an SUV, a sedan, etc.
- Ordinal Scales
 - Ordinal scales are measurement scales in which assigned numbers stand for relative standing or ranking.