INTERPRETING FINDINGS

ANALYZING AND UNDERSTANDING DATA FOR PROGRAM EVALUATION

Jacob Campbell, Ph.D LICSW
Heritage University

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SOWK 460w

Image by Minkoku II - The Blind Men and the Elephant via Wikimedia

THE BLIND MEN AND THE ELEPHANT

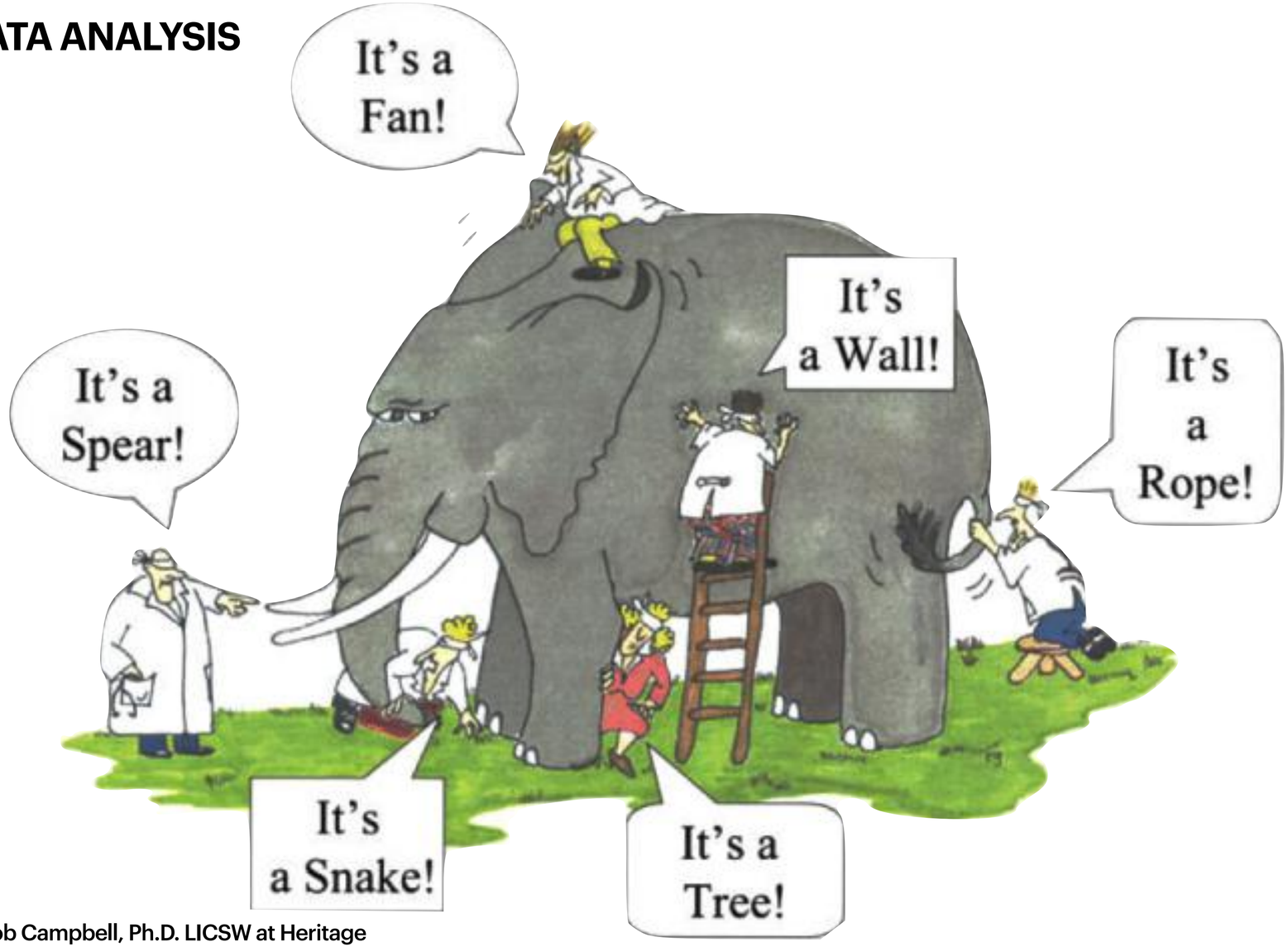
BY JOHN G. SAXE (READ BY TOM O'BEDLAM)

HTTPS://YOUTU.BE/BJVBQEFNXIW

THE BLIND MEN AND THE ELEPHANT

A PARABLE AND CONNECTION WITH DATA ANALYSIS

They all all touched different parts of the elephant and believed that they were



AGENDA

PLAN FOR CLASS TIME

What is the purpose of data analysis

Scales of measurement

Types of calculation

Practical application of interpreting findings

Joined activity with juniors and seniors

How we implement it for program evaluation

PURPOSE OF DATA ANALYSIS

WHY DO WE DO THIS?

- DESCRIBE AND SUMMARIZE THE DATA
- IDENTIFY RELATIONSHIPS BETWEEN VARIABLES
- COMPARE VARIABLES
- IDENTIFY THE DIFFERENCE BETWEEN VARIABLES
- FORECAST OUTCOMES

SCALES OF MEASUREMENT

NOMINAL SCALE

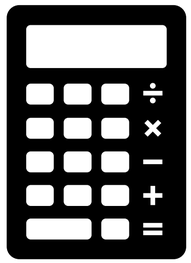
Data can be classified into a non-numerical or named categories, and the order in which these categories can be written or asked is arbitrary.

ORDINAL SCALE

The data can be classified into non-numerical or named categories an inherent order exists among the response categories. Ordinal scales are seen in questions that call for ratings of quality (for example, very good, good, fair, poor, very poor) and agreement (for example, strongly agree, agree, disagree, strongly disagree).

NUMERICAL SCALE

Where numbers represent the possible response categories there is a natural ranking of the categories zero on the scale has meaning there is a quantifiable difference within categories and between consecutive categories.



TYPES OF CALCULATION

Univariate Statistics

- Count (frequencies, *N* and *n*)
- Percentage
- Range
- Mean (average)
- Median (middle number)
- Mode (number of times)
- Standard deviation (amount of change)

Bivariate Analysis

- Coefficient of correlation (strength and direction of relationship)
- Statistical significance (likelihood result is not chance)
- *t*-test (compare two group means)
- ANOVA (One-way Analysis of Variance - to compare means across groups)
- Effect Size (Magnitude of difference)

Multiple Regression (predict outcome from variables)

Factor Analysis (identify variable groupings)

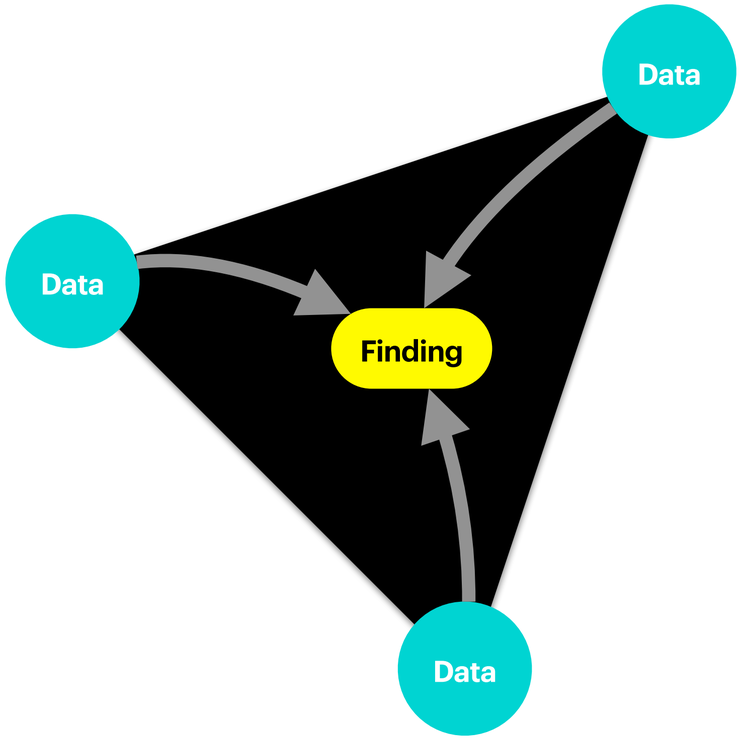
Analysis of Categorical (Nominal) Variables

- Chi-Square Analysis (test association between categories)
- Cross tabulation (compare category frequencies)
- Logistical regression (predict binary outcomes)
- Odds ratio (compare likelihoods between groups)

TYPES OF TRIANGULATION

(Thurmond, 2001)

INCREASING CONFIDENCE IN RESEARCH DATA, CREATING INNOVATIVE WAYS OF UNDERSTANDING A PHENOMENON, REVEALING UNIQUE FINDINGS, CHALLENGING OR INTEGRATING THEORIES, AND PROVIDING A CLEARER UNDERSTANDING OF THE PROBLEM. (P 254)



Data Source Time, space, and person

Investigator Multiple researchers

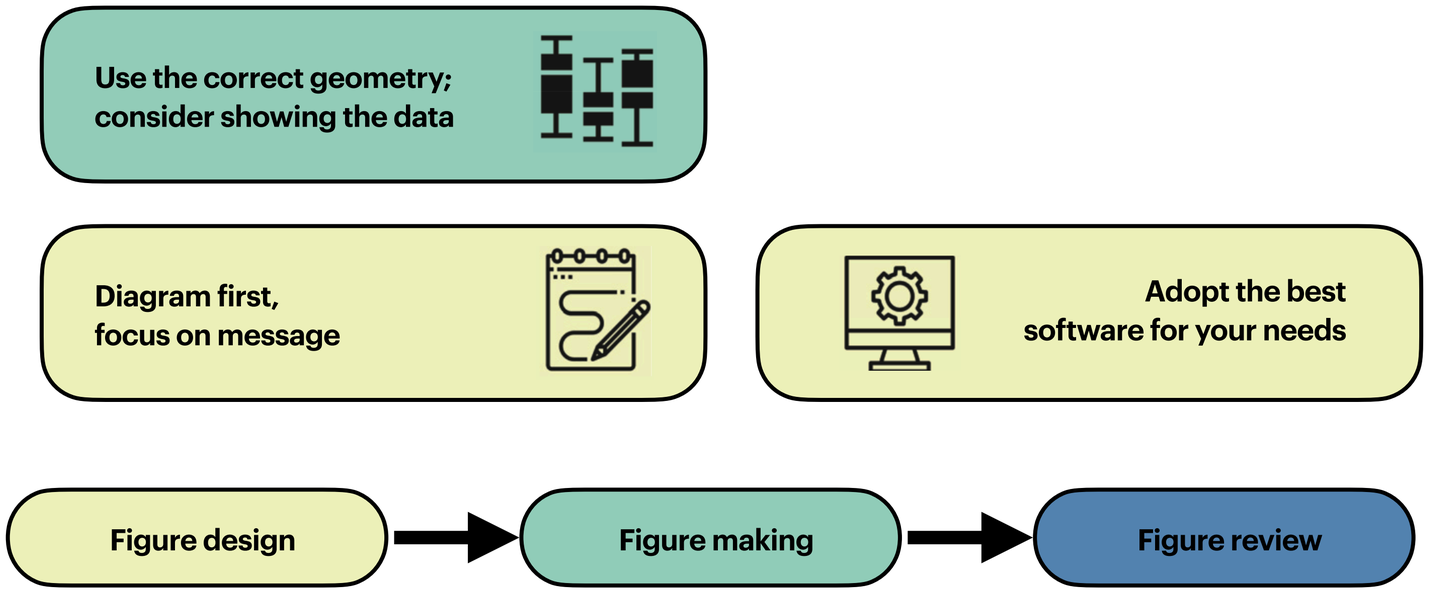
Methodological Using multi-methods in investigation

Theoretical Using multiple theories or hypotheses

Data-Analysis Two or more methods of analyzing data

PRINCIPLES OF EFFECTIVE DATA VISUALIZATION

(Midway, 2020)



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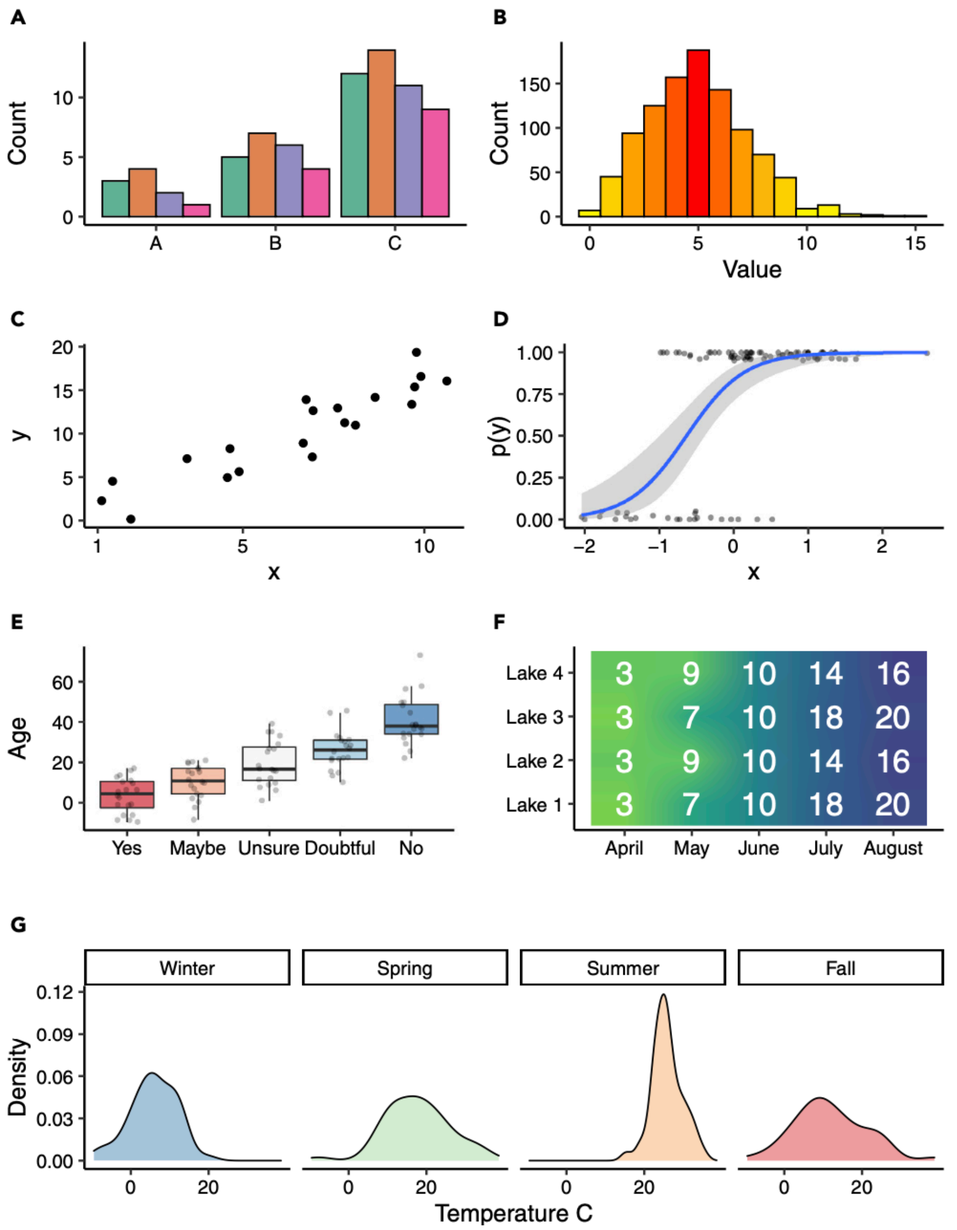

Use the correct geometry; consider showing the data

PRINCIPLES OF EFFECTIVE DATA VISUALIZATION

(Midway, 2020)

- Consider an infographic 
-  Get an independent figure review
- Distinguish models from data 
-  Include a detailed, standalone caption
- Include any relevant metric of uncertainty 
-  Use small multiples (if appropriate)
- Use the correct geometry; consider showing the data 
-  Use an effective color scheme
- Diagram first, focus on message 
-  Adopt the best software for your needs

Figure design → Figure making → Figure review

PRESENTATION PLANNING

FLYER AGREEMENT
LIGHT REFRESHMENTS

Heritage University BASW Presentations for SOWK 460w

May 5, 2025
5:30 to 8:00 PM

Columbia Basin College
SWL 121
2600 N 20th Ave
Pasco WA 99301

We extend a special invitation to you to join our Tri-Cities campus social work seniors as they unveil the results of their community-based program evaluations. Light refreshments will be provided.

Engaging in practice-informed research is a key competency for social workers. For our BASW students, the first semester of their senior year includes a research methods class, and the spring semester includes a class focused on learning to engage in program evaluation.

The class is structured so student groups can administer a program evaluation at their practicum placement. They are engaging in real-world application of this evaluative skill at some of the following agencies:

- Department of Children, Youth, & Families (DCYF)
- Snipes H3
- Lourdes Counseling Center Transition Unit
- Support Advocacy Resource Center (SARC)

Topics include program implementation and burnout. We are looking for members of the Heritage University community and agency stakeholders to join us.

CLASS ACTIVITY

Use the survey created week six and have each individual take the survey.

MAKING INTERPRETING FINDINGS PRACTICAL

BASW QUALITY ASSURANCE SURVEY

2025 SPRING SOWK 460W

https://forms.office.com/r/HtMrBvWWRR

SMALL GROUP ACTIVITY

As small groups, come up with how you would want to present some of the data collected to your peers. What are some of the insights you found?

MAKING INTERPRETING FINDINGS PRACTICAL

2025 SPRING SOWK 460W

BASW QUALITY ASSURANCE SURVEY

Tri-Cities junior and senior joined time together

SO WHERE DO WE GO FROM HERE?

What kind of data have you collected

How are you analyzing it

Technical support

Time to work in your groups