DATA ÁNALYSIS

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DILBERT BY SCOTT ADAMS

ANNOUNCEMENTS

- No reading assignment until June
- Pick up permission forms on Monday?
- Gospel insights: Loraine
 - Next: Sara
- Today: Data analysis
- I'll be out of town until Tuesday morning with sketchy email access.

REFLECTIONS?

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Reflections from data collection?

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Thoughts on evaluation procedures?

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 - Avoid focus groups unless you have a reason for them

MORE DC TIPS

- Pretest/posttest—strive for uniformity. If this is impossible, document possible confounding effects
- Recognize survey's limitations
- ALWAYS pilot test your protocols and methods the first time
- Plan that something will go wrong or take longer

DATA ANALYSIS



... "to reduce and synthesize information" (Fitzpatrick, et al.)

QUANTITATIVE DATA

- Always know what you got first (descriptive data)
 - Why?
 - When should you move on to inferential statistics?

SIGNIFICANCE



• <u>http://xkcd.com/539/</u>

SIGNIFICANCE



http://xkcd.com/539/

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• What is the difference between statistical and practical significance?

SIGNIFICANCE



http://xkcd.com/539/

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- What is the difference between statistical and practical significance?
- Which is more valued in evaluation?

PRACTICAL SIGNIFICANCE?

"The Affect of an Interactive CD and the Use of Chewing Gum on Learning Dental Anatomy"

Read more: <u>http://www.newyorker.com/archive/</u> 2004/02/09/040209ta_talk_mcgrath#ixzz0oOCAN0dO

Meta-analysis of online versus face-to-face learning

Other examples?

Tuesday, May 25, 2010

 Patrick Wolf, of DC School Choice project:

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 - That's .22 of a SD
 - That's an added 5 months of learning

QUALITATIVE ANALYSIS

- More inductive (generating meaning instead of deriving meaning---interpretation-based)
- Category-building; theory-building

TYPICAL PROCESS

- Form and record impressions in field notes
- "Open Coding" -- read through your data without a priori categories and derive them "in vivo"
- Record thoughts and interpretations in memos
- After creating a categorical structure, apply it deductively to the data
- Verify conclusions as *trustworthy* through:
 - Member checking
 - Thick description
 - Triangulation
 - Inquiry audits
 - Peer debriefing
 - Peer coding

ADDITIONAL ANALYSES

- Content analysis: search for specific words and phrases in the data.
- Conversation or discourse analysis: Analyzing the nature of the discourse
- Social network analysis: report statistics on the nature of the interactions among persons (i.e. social capital, bridge people, information flow and networks, community strength, etc.)

• HyperResearch: cross-platform qualitative analysis with generous trial license

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- Markers & printed transcripts (no school like the old school)

ANY QUESTIONS (FROM THE READING?)

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HOW LONG SHOULD YOU ESTIMATE FOR DATA ANALYSIS?

Tuesday, May 25, 2010

WORKSHOP

Data analysis with Jacob and Savannah. Tasks:

Scoring tests Input the data Run descriptive stats Print out qualitative data and begin coding

NEXT STEPS

- Draft of all sections due in 1 week (to team members)
- On Tuesday we'll review data analysis and discuss possible conclusions/ recommendations