COURSE DAY 3: QUANT/QUAL RESEARCH, HW 2

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TYPES OF RESEARCH

QUALITATIVE VS QUANTITATIVE

Differences in Approaches

QUALitative

- Questions: open-ended

- Hypothesis: generating

- Data: text or visual

- Data collection: flexible

- Analysis: describe meaning, contexts, relationships

- Inductive Process

QUANTitative

- Questions: closed response, forced

- Hypothesis: testing

- Data: numerical, nominal

- Data collection: standardized

- Analysis: quantify, statistical significance

- Deductive Process

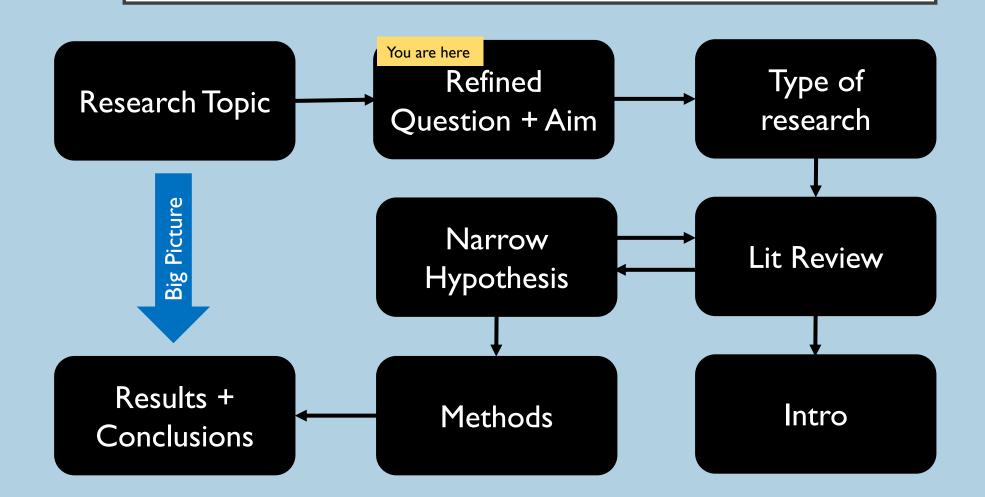# DETERMINES METHODS AND INTERPRETATIONS OF RESULTS!

BENEFITS OF EACH

- Qualitative
  - In-depth
  - Identify reasons or themes (harder with just numbers)
  - Open-ended
- Quantitative
  - Numerical data
  - Sometimes more convincing/objective
  - Easier comparison with other studies

WHICH ONE?

- Sleep *duration* and job performance

- Experience living with hearing loss

- Radiation levels vs computational errors

- Understanding experiences with online learning

  - It depends… on what?

- Any you're curious about? Unclear on what kind of research?

RESEARCH PROJECT – BIG PICTURE

Research Topic

You are here

Refined Question + Aim

Type of research

Big Picture

Narrow Hypothesis

Lit Review

Results + Conclusions

Methods

Intro

UPCOMING ASSIGNMENTS

- HW 1: Finish grading by tomorrow
- HW 2: Due Sunday at midnight eastern

REMINDER: QUIZZES AND NOTES

- Quiz 1 due tonight (7/7) at midnight eastern!
- "One-pager" notes
  - Your own work
  - Summarize key definitions, steps, ideas, etc.
  - Something you'd understand 5 years from now
- Example: https://jackhester.com/teaching/one-pagers

QUIZ 1

- 1 short answer
- 3 true/false
- 2 multiple choice
- 1 multiple answer
- 1 bonus on scientific method video

FUTURE CLASSES

QUIZ/OTHER QUESTIONS?

HW 2: WORK AND QUESTIONS!