

## Research: Where to Start

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## Research Approaches<sup>1,2</sup>

- Two types of approaches (philosophy) to research are normally recognized:
  - Quantitative
    - Pragmatic
  - Qualitative
  - Mixed Methods Design



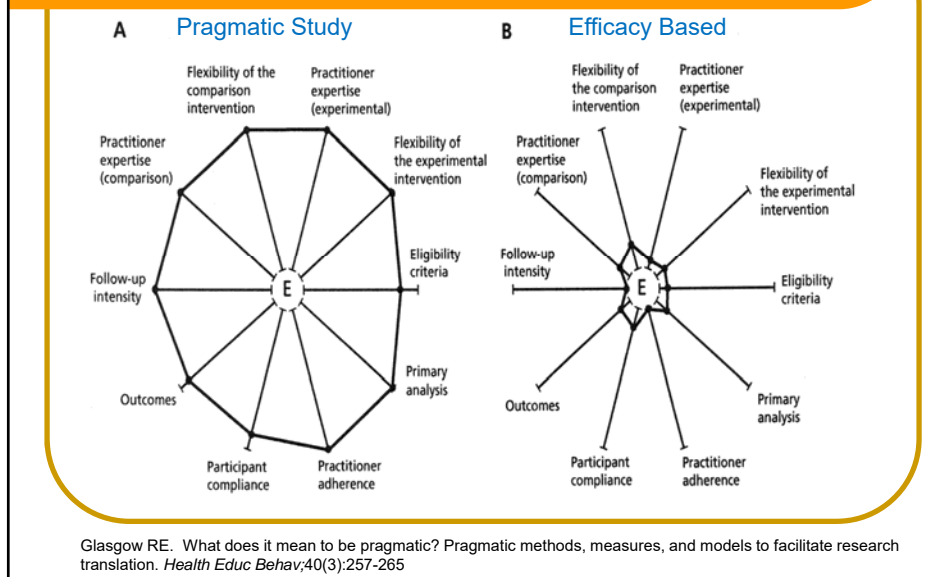
## Quantitative Approach<sup>1</sup>

- Approach assumes there is an *objective* truth that can be revealed by independent investigators.
- Statistics are used to determine the answer
- A greater control (rigor) provides a higher expectation of quality
- The traditional scientific method

## Pragmatic Approach<sup>2</sup>

- Designed to determine whether intervention or assessment tools work under usual conditions vs. under ideal conditions (explanatory, efficacy based)
- 10 dimensions used to determine if study is pragmatic vs. explanatory

## Pragmatic vs. Efficacy based<sup>2</sup>



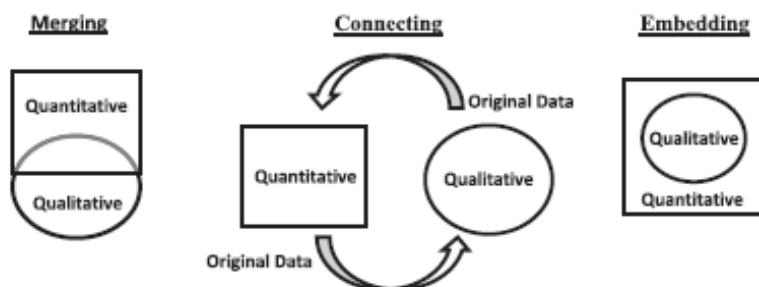
## Qualitative Approach<sup>1</sup>

- This approach assumes truth is *subjective* and *relative to interpretation* by the individual.
- Data is captured in words from which patterns or themes are discerned

## Qualitative Studies

- Focus on subject's thoughts, perceptions, opinions, beliefs, and/or attitudes
- Data reported in narrative rather than statistical format.
- Data collection methods include interviews, surveys, diaries, observations, etc.
- Results focus on themes or patterns of data

## Mixed Methods Design<sup>3</sup>



**Figure.** *Integration processes for quantitative and qualitative data.*

Albright K, Gechter K, Kempe A. Importance of mixed methods in pragmatic trials and dissemination and implementation research. *Acad Pediatr.* 2013;13:400-407

## I want to do research. Where to I start?

- Research Question
  - Intervention
    - Hippotherapy
    - Therapeutic Riding
    - Facilitated mental health
  - Specific diagnosis
  - Specific impairment
  - Participation/Quality of Life

## Research Question Determines

- Key characteristics of the design
  - Research Design
    - Non-experimental, quasi-experimental, cross-sectional, longitudinal, cohort, RCT, etc.
  - Assessment tools – sophisticated/clinical
  - Intervention
  - Comparison groups
  - Comparison interventions

## Pitfalls

- Quantitative Studies
  - Statistical analysis
- Qualitative Studies
  - Time needed to develop themes
  - Software
- Collaboration with Universities
  - Broad ideas
  - Assuming faculty understand all the nuances of the intervention

## References

1. Jewell DV. *Guide to Evidence-Based Physical Therapist Practice*. 2<sup>nd</sup> ed. Sudbury, MA: Jones & Bartlett Learning;2011.
2. Glasgow RE. What does it mean to be pragmatic? Pragmatic methods, measures, and models to facilitate research translation. *Health Educ Behav*;40(3):257-265
3. Albright K, Gechter K, Kempe A. Importance of mixed methods in pragmatic trials and dissemination and implementation research. *Acad Pediatr*. 2013;13:400-407

## Questions



*Questions are the path to learning*