Conceptualize Research Idea

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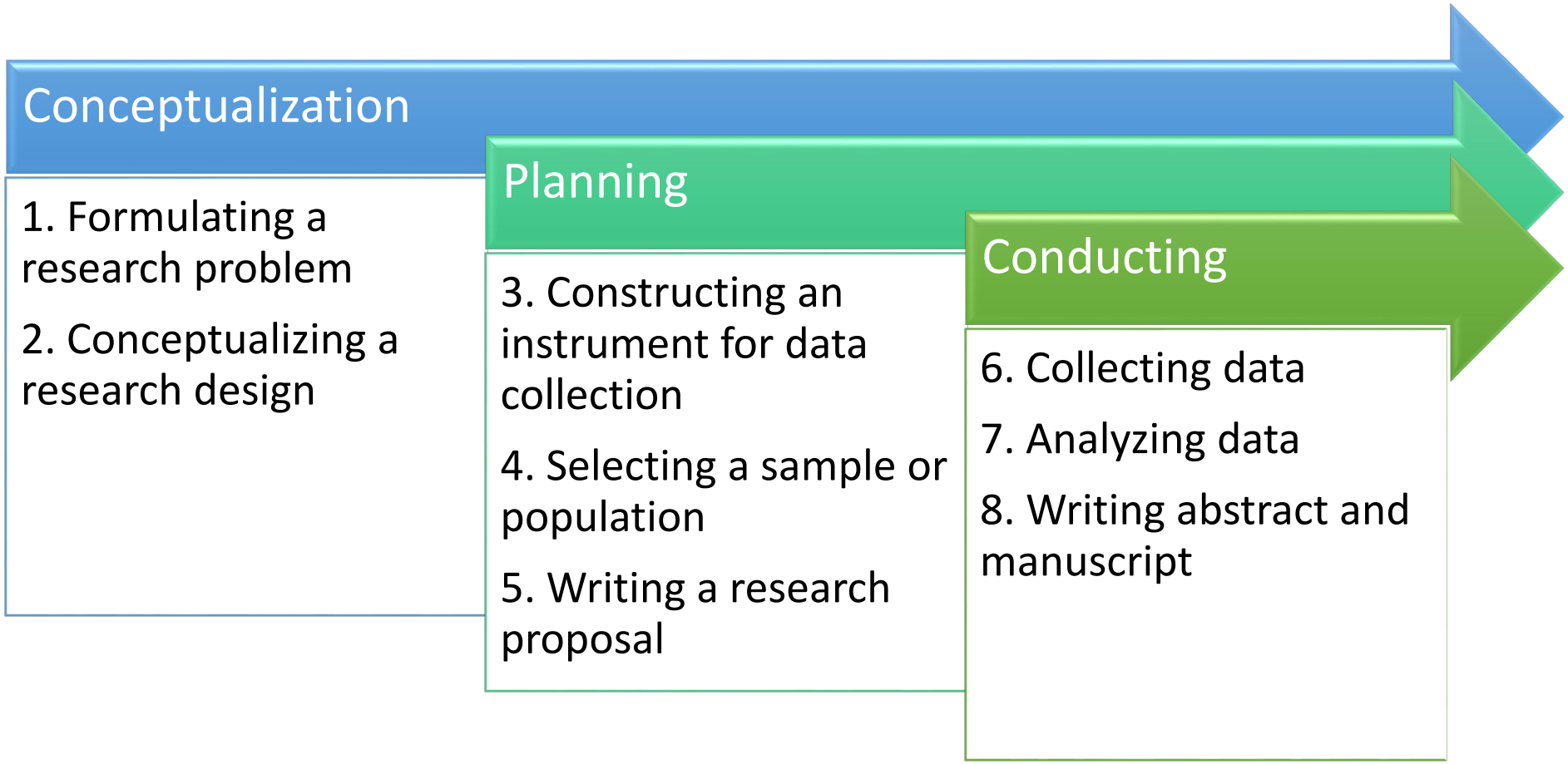
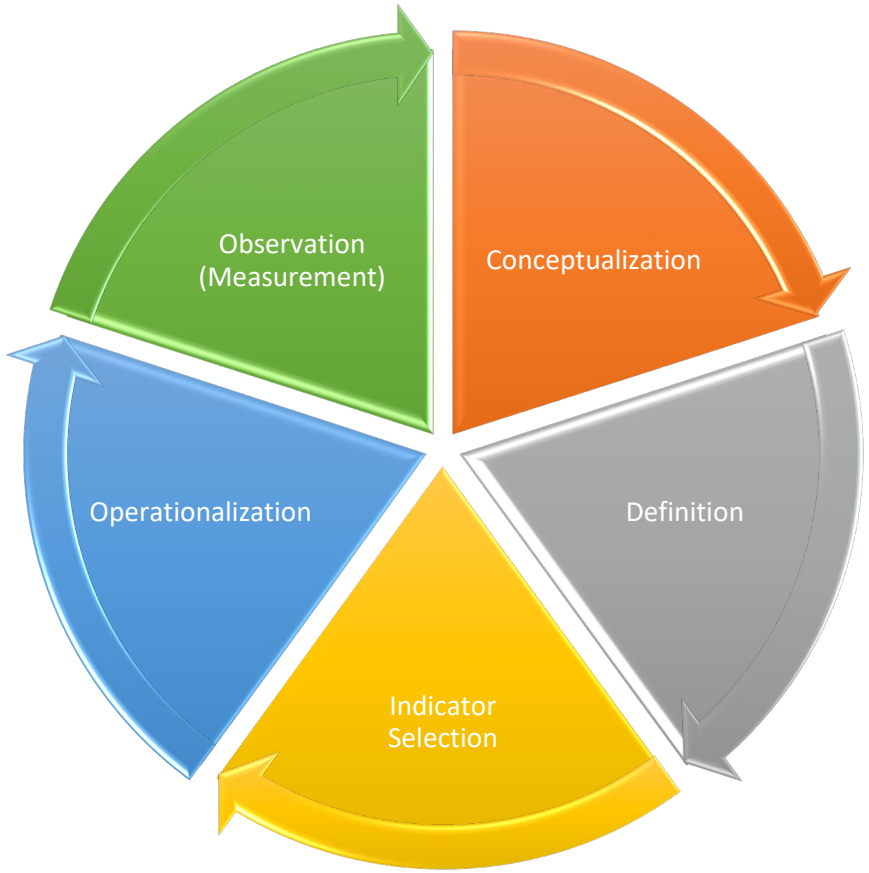
Research Process



Conceptualization Process

- Conceptualization is the first stage in a project lifecycle
- How do you develop research questions:
  - Practical problems in the field
  - Literature within your specific field
    - Read literature in order to assess what issues they were unable to examine and think of ways to extend or improve previous research
  - Brainstorming with colleagues
- Be sure to narrow your focus and find the significance of your research



Formulating a Research Problem

- Questions to ask when formulating a research question:
  - Is the problem interesting to others in your field?
  - Will the research contribute to your field?
  - Will the research generate new information and is the research novel?
  - What had been written on the topic?
  - Do I have the skills and/or resources necessary to conduct the research?
  - Is the research reproducible?
  - Is the research feasible in terms of:
    - Time required to finish project?
    - Expenses involved in completing research?
    - Availability and accessibility of data?
    - Risks involved in conducting experimental research?

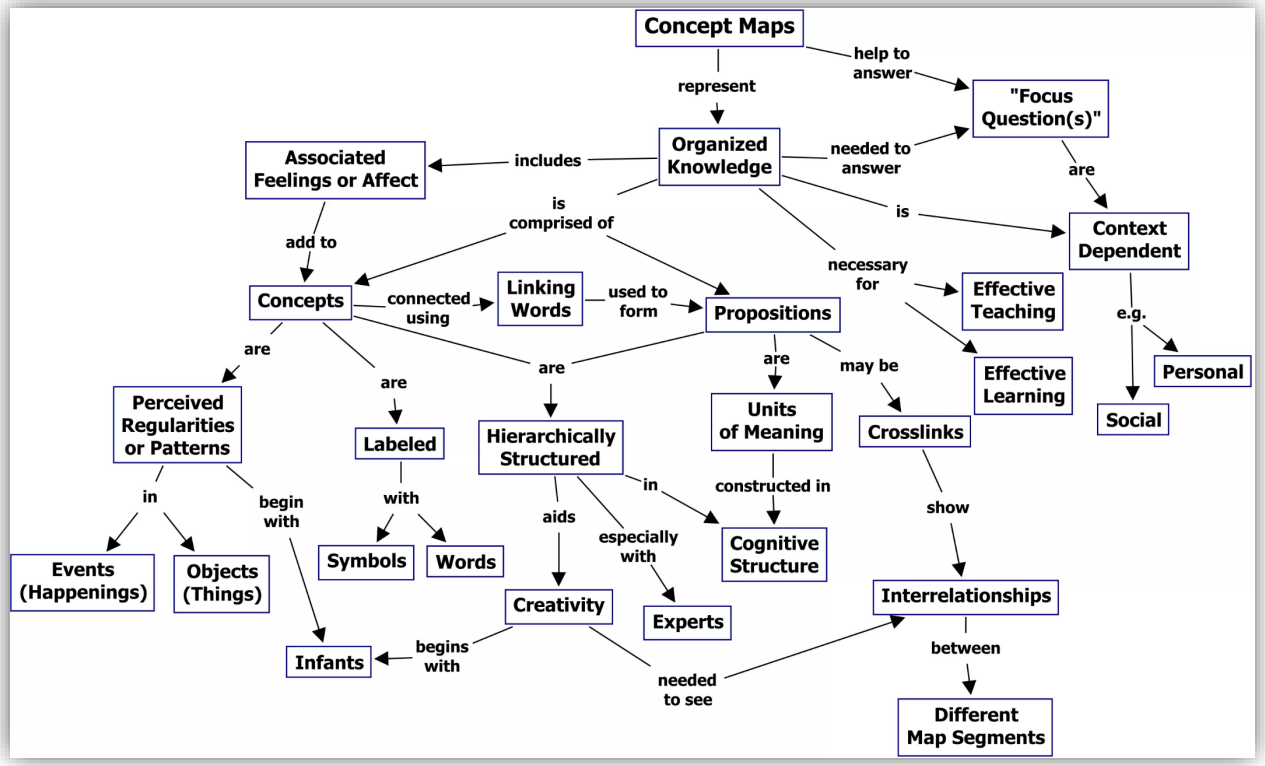
Sources of Inspiration

- Data & Theory Driven
  - Journal articles
  - Academic or professional books
  - Research reports
  - Online materials
  - Government documents – public records
  - Pilot projects
- Research Driven
  - Concept maps
  - Cause and effect diagrams
  - Driver diagrams

Concept Mapping

Structured conceptual framework to guide evaluation and planning. Include words, symbols, and shapes to explain the nature or strength of relationships between 2 or more units. Instead of flowing from one concept to another, they represent multiple start points that may or may not be related to every other unit.

Example



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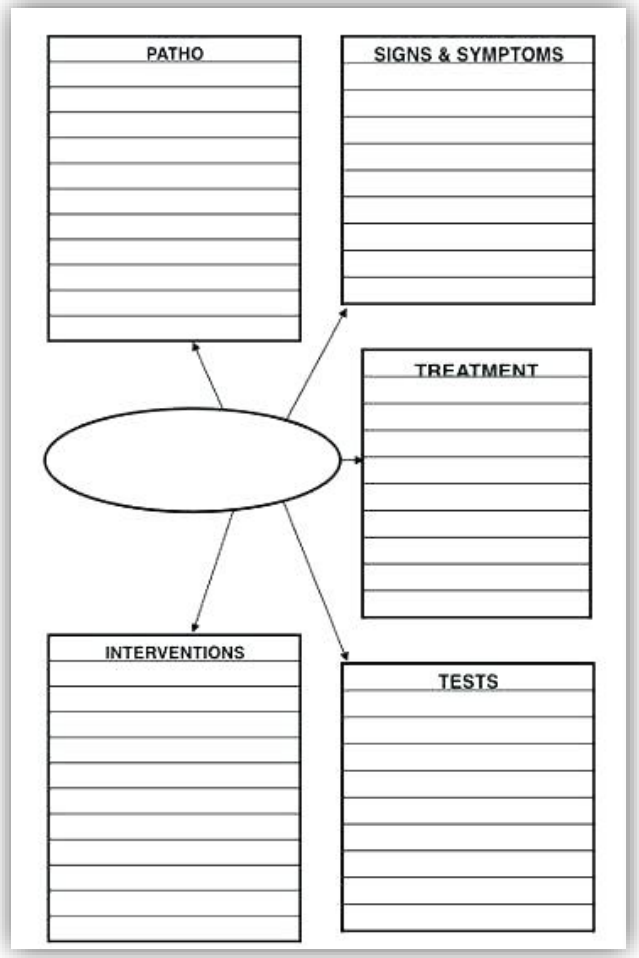
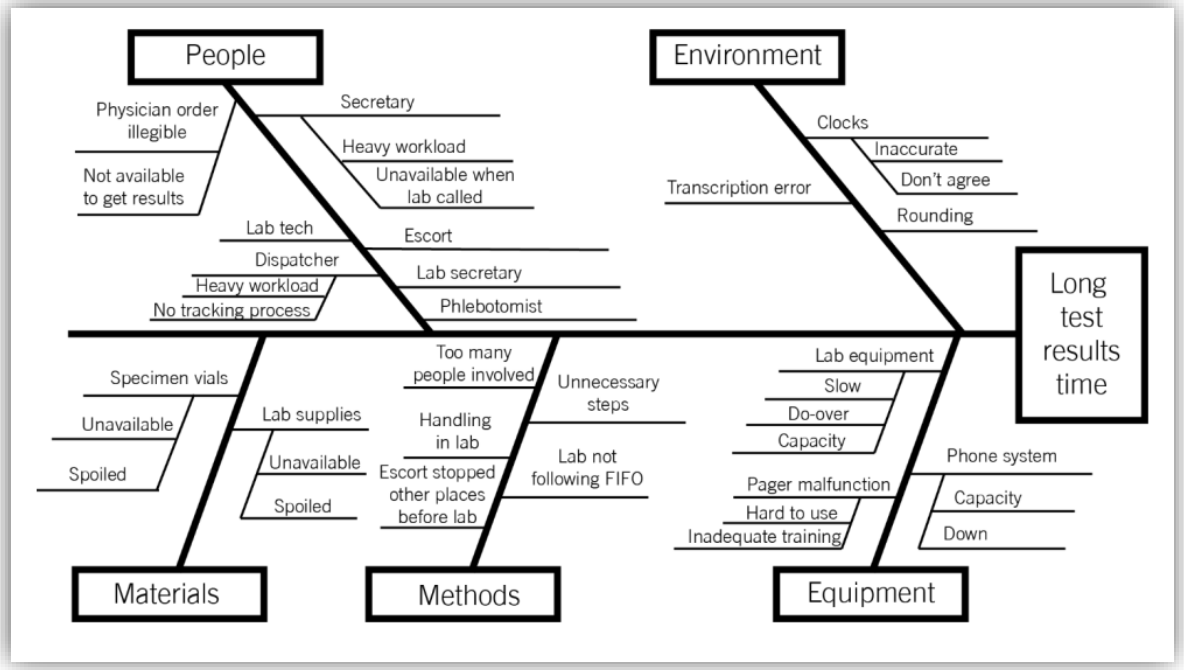


Cause and Effect Diagram

(Also known as Ishikawa Diagram or Fishbone Diagram)

Assists in determining what changes to test to improve a process. Tool that helps teams explore and display the many causes contributing to a certain effect or outcome.

Example



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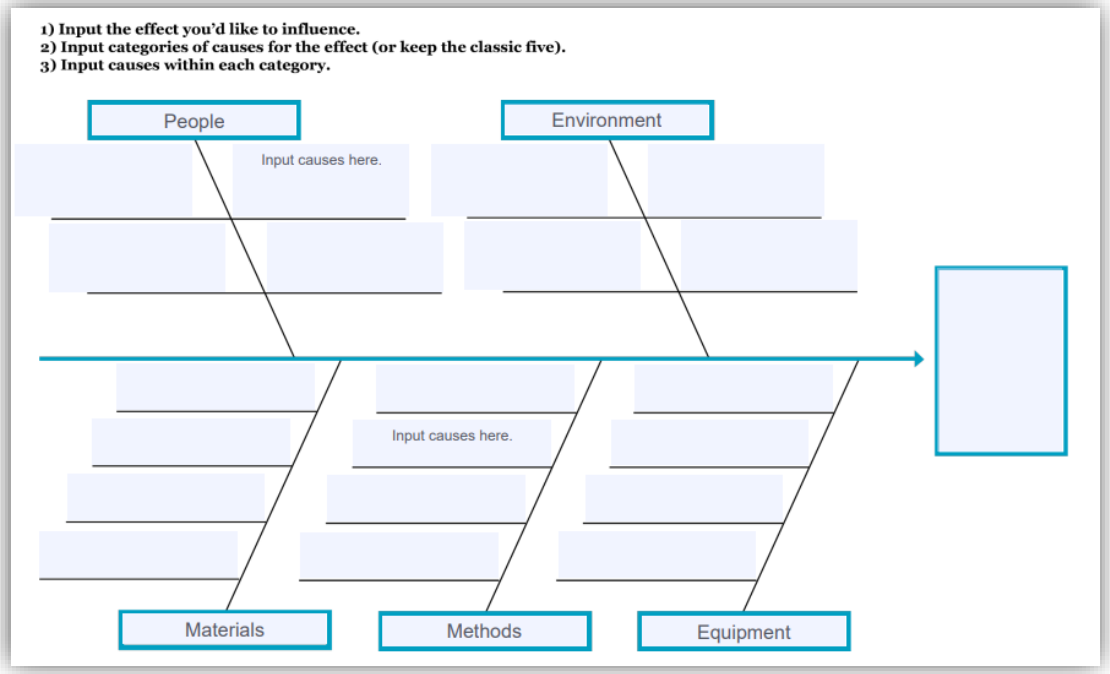
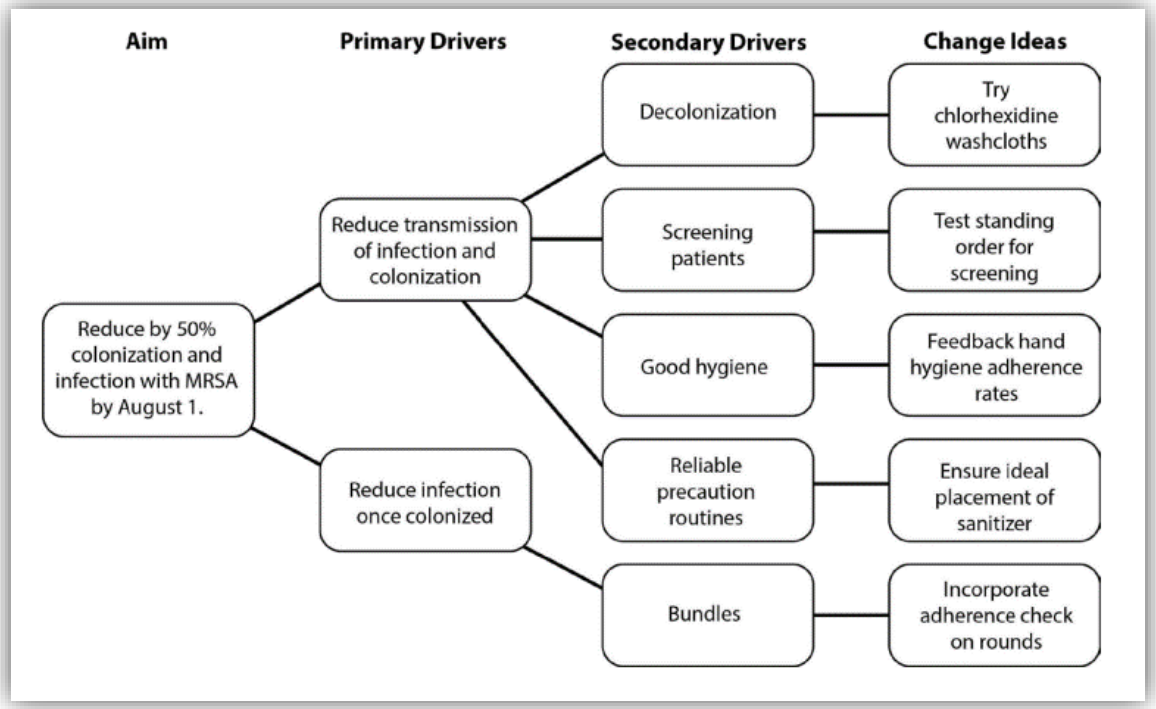


Source: Institute for Healthcare Improvement

Driver Diagram

Visual display of what contributes to the achievement of each aim. Shows the relationship between overall aim of the project, the primary drivers that contribute directly, the secondary drivers that are components of the primary drivers, and the ideas of changes to test for each driver.

Example



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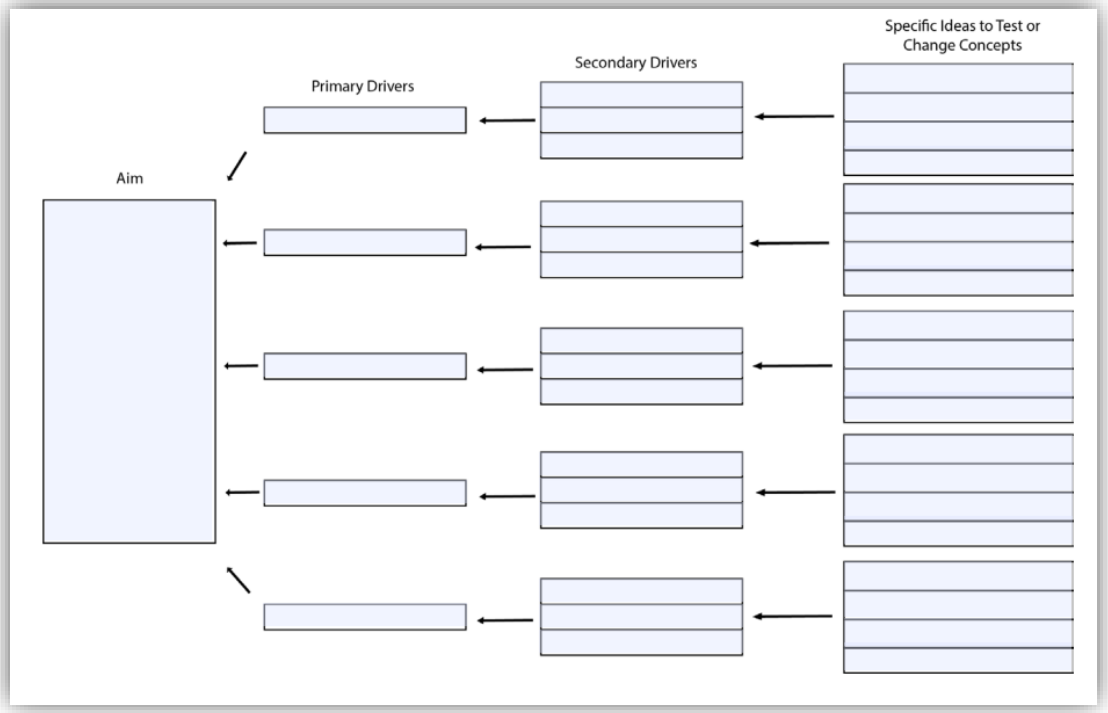

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