DEVELOPING THE RESEARCH QUESTION AND HYPOTHESIS
A Research Question is a statement that identifies the phenomenon to be studied.

For example, “Can changes in diet and upbringing compensate for genetic abnormalities?”
To develop a strong research question from your ideas, you should ask yourself these things:

- Do I know the field and its literature well?
- What are the important research question in my field?
- What areas need further exploration?
- Could my study fill a gap? Lead to the greater understanding?
- Has this study been done before?
- Most importantly, will my study have a significant impact on the field?
Research Question

The Research Process

Why is this research important? What have other people done? What have they found?

Research Question - Broad based inquiry

Hypothesis

Hypothesis

Hypothesis

Specific Aims - the steps you are going to take to test hypothesis
A research question is essentially a hypothesis asked in the form of question.
A research focus should be narrow, not broad based.

- For example, “What can be done to prevent substance abuse?” is too large a question to answer.
- It would be better to begin with a more focused question such as “What is the relationship between specific early childhood experiences and subsequent substance-abusing behaviors?”
• A well thought out and focused research question leads directly into your hypotheses.

• What predictions would you make about the phenomenon you are examining?

• This will be the foundation of your application.

  ◦ For example, “Those parents who will make changes in diet and upbringing will prevent genetic abnormalities in their children.”
• Hypotheses are intelligent, tentative guesses about how the research problem may be resolved.

• Hypothesis is a clear statement of what is intended to be investigated.
• It should be specified before research is conducted and openly stated in reporting the results.

• This allows to:
  ◦ Identify the research objectives;
  ◦ Identify the key abstract concepts involved in the research;
  ◦ Identify its relationship to both the problem statement and the literature review
• A problem cannot be scientifically solved unless it is reduced to hypothesis form.

• It is a powerful tool of advancement of knowledge, consistent with existing knowledge and conducive to further enquiry.
Strong hypotheses:

- Give insight into a research question
- Are testable and measurable by the proposed experiments
- Make sure you: Provide a rationale for your hypotheses-where did they come from, and why are they strong?
- Provide alternative possibilities for the hypotheses that could be tested-why did you choose the ones you did over others?
“Hypothesis is perhaps the most powerful tool, man has invented to achieve dependable knowledge” - Fred Kerlinger...
Both hypothesis and research questions provide guidance for the kinds of data researchers should collect and suggest how the researcher should analyze and interpret those data.

“Research questions and hypotheses become “signposts” for explaining the purpose of the study and guiding the research...”, Creswell
