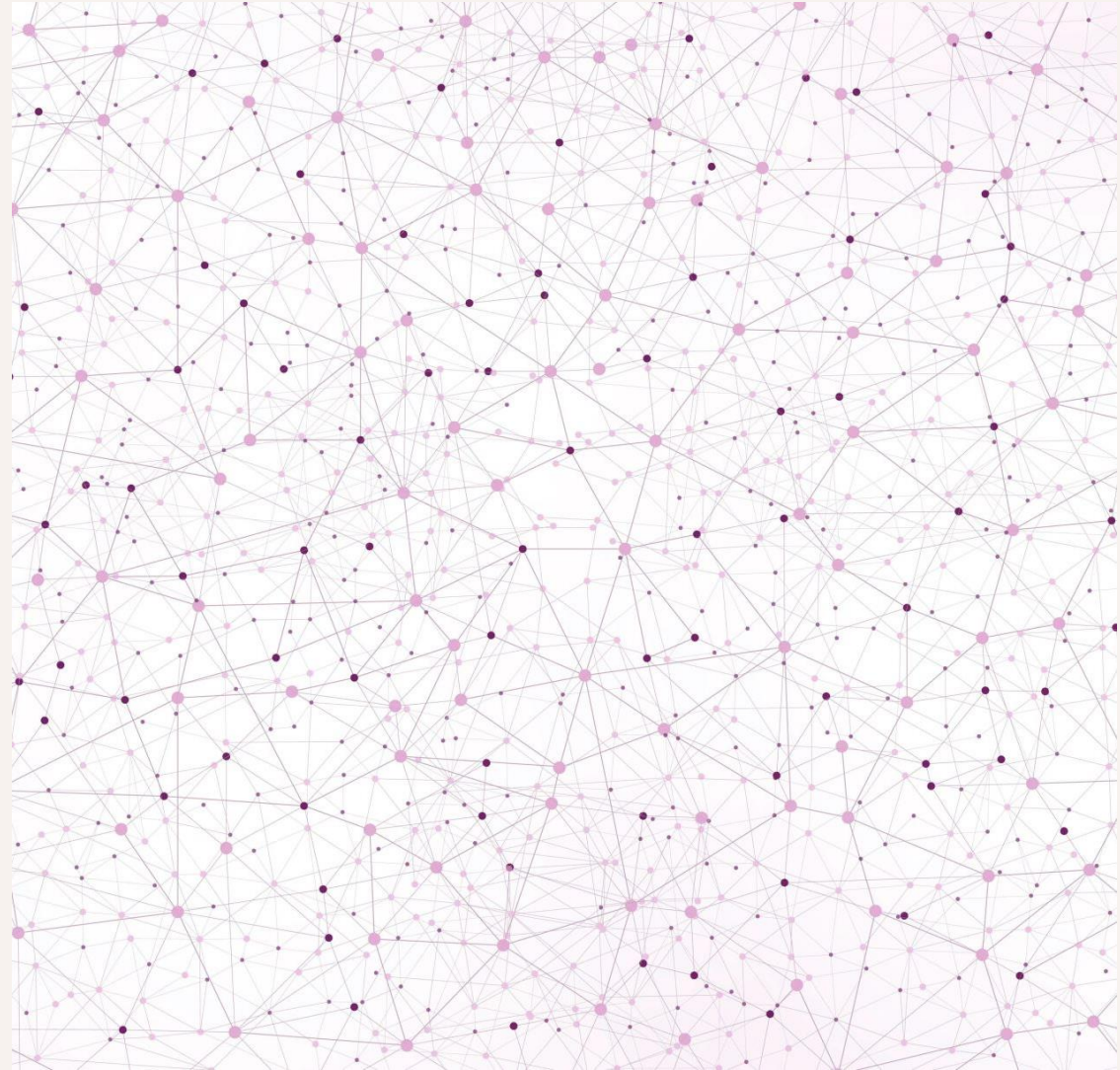


# Research Issues

Lecture objectives :

- 1-What are research issues?**
- 2-What are the 5 types of research problem?**
- 3-Criteria for Selecting a Problem**
- 4-Problem Extraction**
- 4-Statement of the Problem**

LECTURE 1



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# 1-What are research issues?

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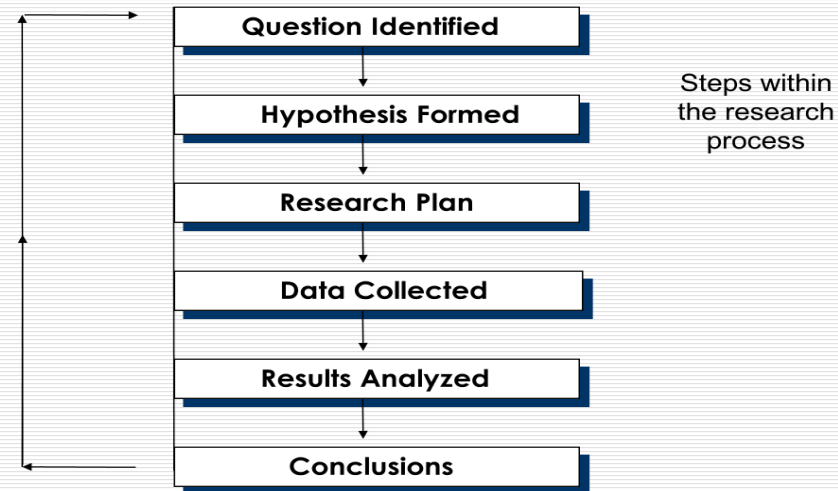
- A research problem is a statement about an area of concern, a condition to be improved, a difficulty to be eliminated, or a troubling question that exists in **scholarly literature**, in **theory**, or in **practice** that points to the need for meaningful understanding and deliberate investigation.
-

# The Research problem

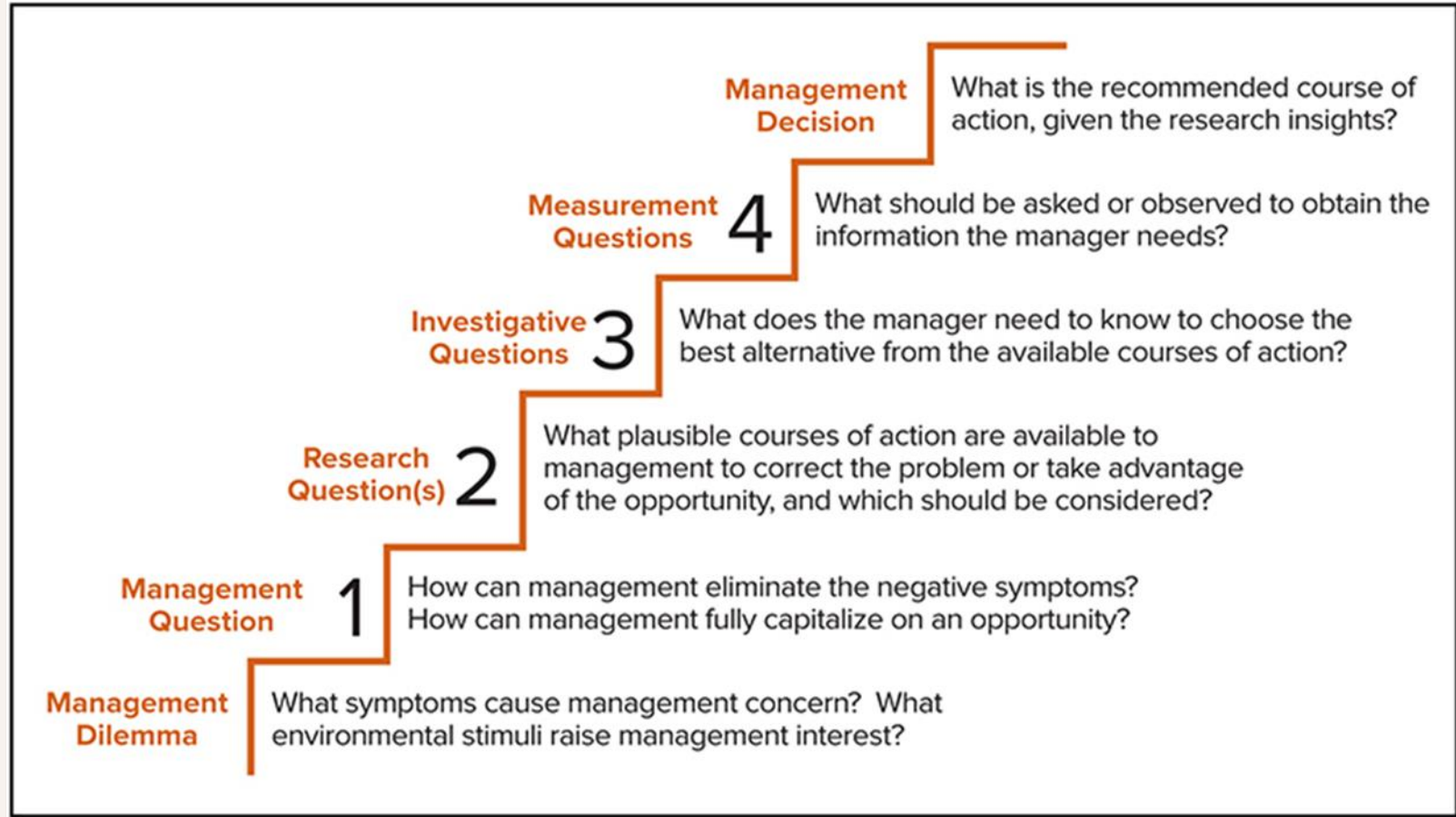


- The foundation of the research process
- It all begins with a question/ problem

## Stages of the Scientific Method



# The Research problem



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# Finding a Research problem/ issue

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- From where ???????
  - Curiosity
  - Information Gaps
  - Controversy
  - Replication
  - Literature Review
  - Other People
  - ...???



2-What are the 5 types of research problem?



## a- Descriptive Research Problems:وصفي

1. Descriptive research problems seek to provide an accurate and detailed depiction or description of a particular phenomenon, situation, or group.
  2. The objective is to answer questions like "What is happening?" or "What is the current state of affairs?"
  3. Descriptive research focuses on observing and documenting characteristics, behaviors, and patterns without manipulating variables or establishing **cause-and-effect** relationships.
- **Example:** What are the demographic characteristics and employment patterns of individuals in a specific urban neighborhood?  
This research problem seeks to describe the demographic profile (age, gender, education, etc.) and employment status (unemployment rate, types of jobs, etc.) of individuals living in a particular urban neighborhood.

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# Descriptive Question

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- Seeks to describe phenomena or characteristics of a particular group of subjects being studied
    - Answers the question "what is"
      - Asking questions of the research participants
      - Testing or measuring their performance
    - Survey research
  - Example
    - What are the attitudes of rural parents toward the inclusion of sexuality education in the school curriculum? (Welshimer & Harris, 1994)
-

# b-Exploratory Research Problems

الاستكشافية:

1. Exploratory research problems aim to explore a relatively unexplored or poorly understood area of study.
2. The objective is to gain insights, generate hypotheses, or identify new research questions.
3. Exploratory research is often conducted when there is limited existing knowledge or when the topic is complex and multifaceted.

Example: What are the potential factors **influencing consumer preferences** towards electric vehicles in the market?

This research problem aims to explore and identify the various factors (environmental concerns, cost, infrastructure, government policies, etc.) that may influence consumer preferences and adoption of electric vehicles.

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# The Research problem

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Declining sales is one of the most common symptoms serving as a stimulus for a research project, especially a continuing pattern that is unexplained. SalePro, a large manufacturer of industrial goods, faces this situation.

Exploration (1) reveals that sales, in fact, should not be declining in the South and Northeast.

Environmental factors there are as favorable as in the growing regions.

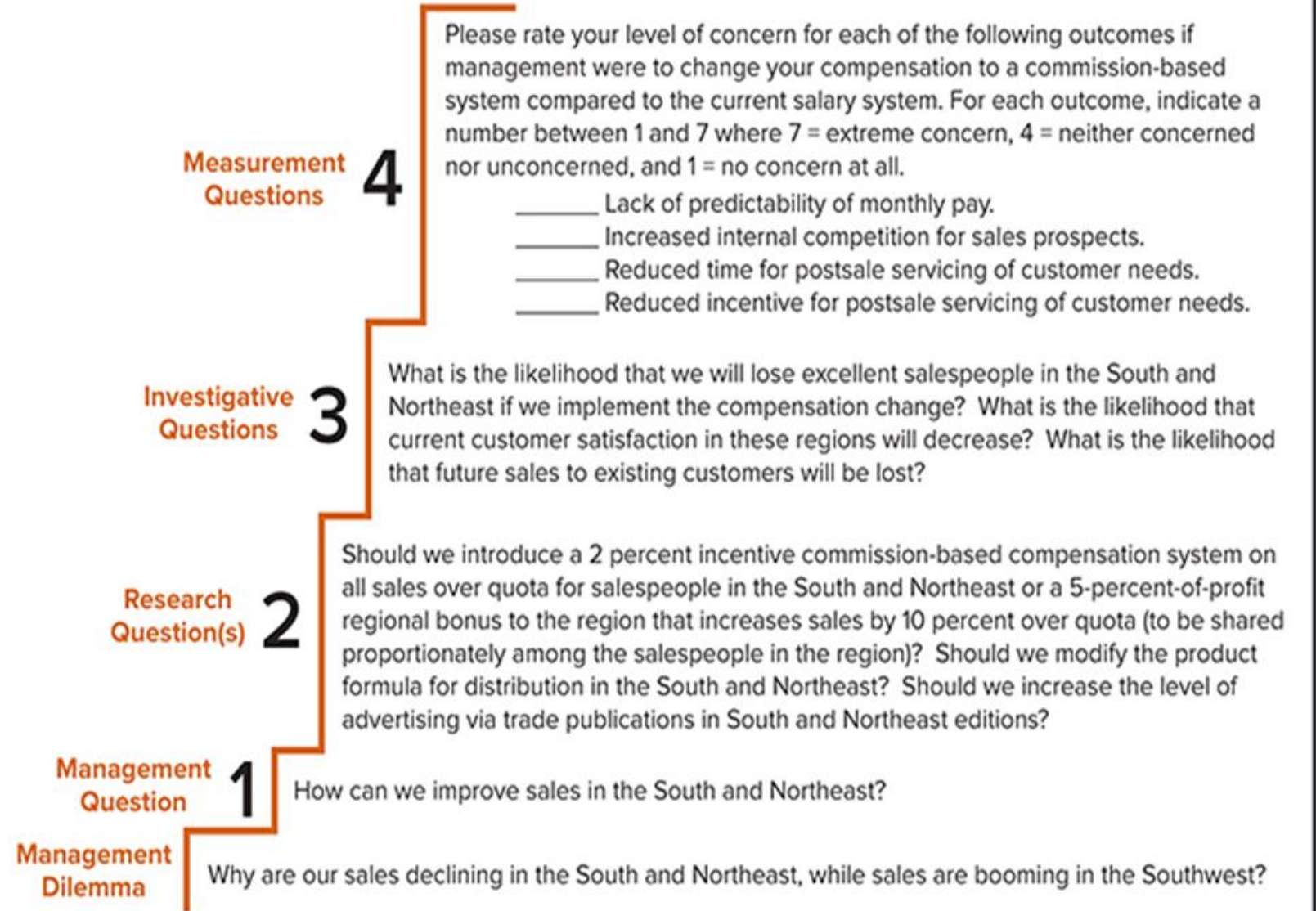
Subsequent exploration (2, 3) leads management to believe that the problem is in one of three areas: salesperson compensation, product formulation, or trade advertising.

Further exploration (4) has SalePro management narrowing the focus of its research to alternative ways to alter the sales compensation system, which (5) leads to a survey of all sales personnel in the affected regions.

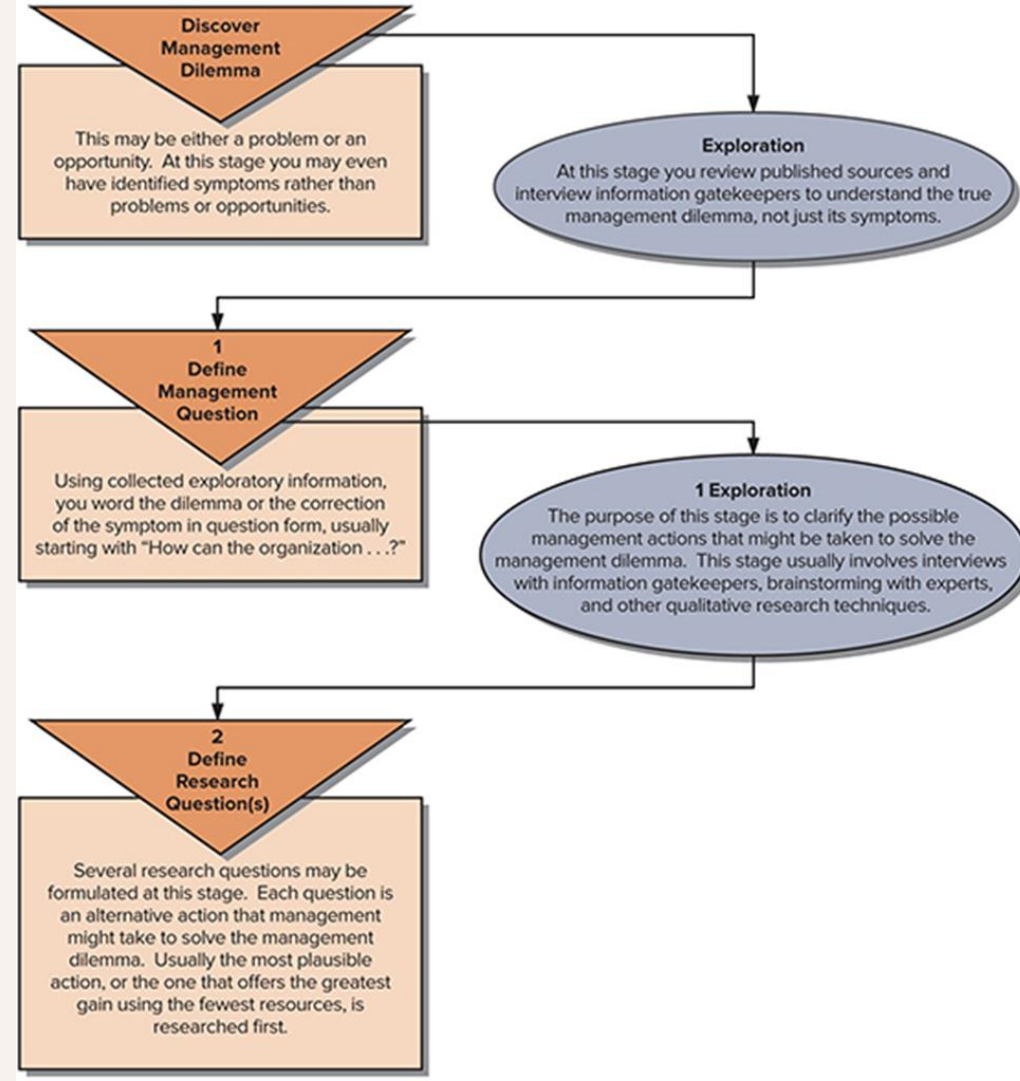
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# The Research problem



# Formulating the Research Question 1



# c-Explanatory Research Problem تفسيري

- Explanatory research problems seek to explain the relationships between variables and determine causal connections.
- The objective is to answer questions like "Why does a certain phenomenon occur?" or "What are the causes and effects of a particular event?"
- Explanatory research focuses on identifying and understanding the factors that influence or contribute to a given outcome.

Example: What is the relationship between sleep duration and academic performance among high school students?

This research problem seeks to explain the relationship between two variables (sleep duration and academic performance) and determine whether there is a causal connection or correlation between them.

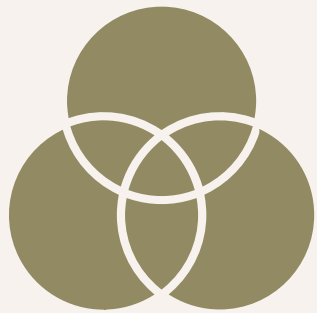
# d-Evaluative Research Problems: التقييمية:

- Evaluative research problems aim to assess and evaluate the effectiveness, efficiency, or impact of a program, policy, intervention, or strategy.
- The objective is to answer questions like "Does the intervention achieve its intended outcomes?" or "What are the strengths and weaknesses of a particular approach?"
- Evaluative research involves assessing the value, merit, or worth of a specific intervention or initiative.

Example: What is the effectiveness of a mindfulness-based stress reduction program in reducing stress levels among employees in a corporate setting?

This research problem aims to evaluate the effectiveness of a particular intervention (mindfulness-based stress reduction program) in achieving its intended outcome (reducing stress levels) among employees in a corporate environment.

# 5–Comparative Research Problems:



- Comparative research problems involve comparing two or more variables, groups, or contexts to identify similarities, differences, or relationships between them.
- They seek to examine variations across different settings, populations, or time periods.
- Comparative research can be used to understand the effects of different treatments, interventions, or policies in diverse contexts.

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# 3-Criteria for Selecting a Problem

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- Interest/ passion
    - Most important
  - Significance
    - Theoretical value
    - Practical value
    - Timeliness
    - External review
  - Manageability
    - Expertise, time, resources
    - Free from personal bias
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# 4-Problem Extraction

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- The process of refining the question or idea into a problem and making it sufficiently specific so that it is amenable to investigation
  - This process should lead to the development of a “statement of the problem” that is clear, concise, and definitive
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## 5-Statement of the Problem

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- A very specific statement which clearly identifies the problem being studied; will usually identify the key variables as well as give some information about the scope of the study
  - May be in either question or declarative form
  - May include inherent sub-problems, if appropriate
  - Formulation of problem statement takes place after an initial review of related literature and the distillation process
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# 5-Problem Statements

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- "The problem of this study was to ..."
  - "This study was concerned with ..."
  - "This study is designed to ..."
  - "The purpose of this investigation is to ..."
-

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# 5-Sample Problem Statements

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1. The problem was to investigate the effects of exercise on blood lipids among college-age females.
  2. This study was designed to determine the relationship between stability performance and physical growth characteristics of preschool children.
  3. The present study was designed to identify those characteristics which differentiate between students who binge drink and those that do not.
  4. The problem of the study was to determine is there is a relationship between self-efficacy and self-reported alcohol usage among middle-aged adult females.
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# Delimitations

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- Delimitations define the scope of the study. That is, they set the boundaries of the study
  - Normally under control of the researcher
  - Examples include
    - number and kinds of subjects
    - treatment conditions
    - tests, measures, instruments used
    - type of equipment
    - location, environmental setting
    - type of training (time and duration)
-

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# Limitations

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- Limitations are very similar to delimitations, but they tend to focus on potential weaknesses of the study
  - Examples include
    - sampling problems (representativeness of subjects)
    - uncontrolled factors and extraneous variables
    - faulty research design and techniques
    - reliability and validity of measuring instruments
    - compromises to internal/external validity
-

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# Limitations continued

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- Possible shortcomings of the study . . . usually cannot be controlled by the researcher
    - the researcher will, of course, try to eliminate extremely serious weaknesses before the study is commenced
  - May be a result of assumptions not being met
  - No study is perfect; the researcher recognizes the weaknesses
-

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# Assumptions

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- Assumptions are basic, fundamental conditions that must exist in order for the research to proceed
  - Basic premises required in the study... the researcher does everything possible to increase the credibility of the assumptions, but does not have absolute control
  - Assumptions could be made about (1) the motivation of the subjects, (2) whether subjects responded truthfully, (3) the validity of the measuring instrument, and (4) whether subjects followed directions correctly
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# Concept of Variables

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- A variable is a characteristic, trait, or attribute of a person or thing that can be classified or measured
    - Attitude
    - Gender
    - Heart rate
    - Hair color
  - Variable - the condition or characteristic which in a given study may have more than one value
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# Classification of Variables

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- Quantitative – measured numerically
  - Discrete
  - Continuous
- Qualitative – categorical in nature

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# Independent Variable

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- A variable that is presumed to influence another variable; the variable under study or the one that the researcher manipulates
  - Two types
    - Active - variable is actually manipulated
    - Attribute - cannot be manipulated because it is preexisting trait; sometimes called a “categorical” variable (e.g., race, gender)
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# Dependent Variable

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- The variable that is expected to change as a result of the manipulation of the independent variable; that which is measured in a study

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# Extraneous Variable

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- A variable that could contribute some type of error in a research study
  - Also referred to as ...
    - Confounding variable
    - Intervening variable
    - Modifying variable
  - Error-producing variable that the researcher should attempt to eliminate or control
  - May affect the relationship between the independent variable and the dependent variable if not adequately controlled
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# Controlling Extraneous Variables

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- Excluding the variable
  - Random selection of research participants
  - Matching cases according to some criterion
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