AGE 3381

Research Project

Lecture 3

The Research Project Design

by

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Presentation Overview

- Research Planning
- The Research project Proposal
- Research Title
- Research problem & objectives

What do I do? Where do I Start?

- Here, some useful guidelines for students are provided on planning and doing research.
- These are “time tested” and “very dependable”
- *“…deceptively simple as a concept or approach, yet inherently difficult and taxing in implementing..”*

The Research Project Proposal

A research plan is the key to successful research. The approach to the research needs to be carefully constructed and designed.

> *"the heart of the research plan is the research proposal"*

- The intent is not to limit creativity …
- the most insightful discovery usually occur within structured inquiry.

Who Needs the Research Proposal?

- Proposals are generally required by all entities that support or encourage research
- They can seek financial support or simply serve as a guide for the research.
  - Ph.D. dissertations most stringent and complex
  - Some funding sources (e.g. industry groups), may prefer short, concise plans; no “academic” aspects
- Rarely a proposal may be delivered orally (usually backed by a written proposal).
  - Need effective communication skills
  - Thoughts must be clear and well developed

Proposals Serve Dual Purposes

- Provides an operational plan for the researcher.

- For evaluators (including graduate committees) a proposal clarifies the intent of the research and allows decisions on approval or disapproval

Elements of the Research Proposal

Although varying in complexity and form, there are common elements to all proposals. The figure below shows components and linkages.

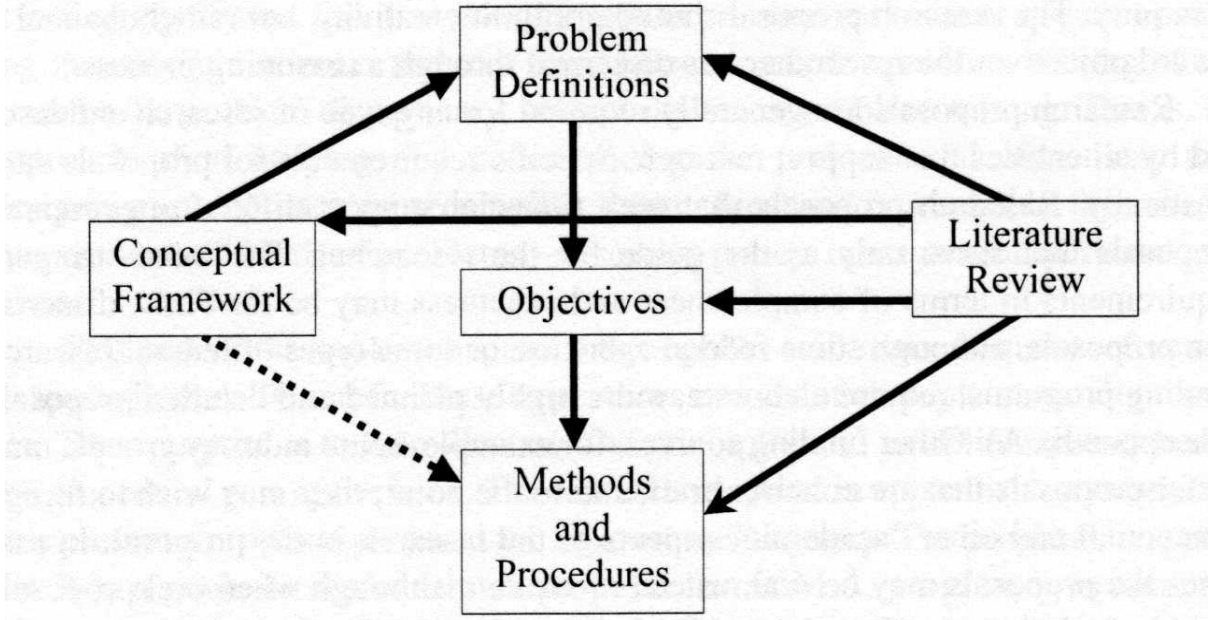
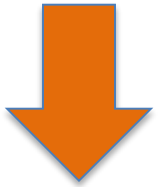


Figure 5.1. Linkages among components of a research project.

Title

- Project title should be descriptive of the main focus, but no longer than necessary
- NOT a detailed description – but still provide an accurate impression of the central focus

e.g. "An Economic Study of the Impacts of Lowering Import Tariffs on dairy products on Consumers, dairy processors, and farmers in Zambia ."



BETTER:

"Lowering Import Tariffs on Zambia's dairy products: Effects on Consumers and Industry"

Identifying information

- Describes the people and organizations involved in the research, and other summary information

- Names, titles, addresses, phone numbers

The Research Problem and Objectives

Problem identification and explanation

- Description of the problem being addressed by the research and the rationale for the proposed objectives
- Often, a two step procedure:
  1. Develop a general perspective of the broad problem area
  2. Focus on the part of the problem area to be studied, within resource constraints of the project
- This is the reason (justification) for the research.

Ways to Select Research Topics

- Personal experience;
- Whether you want to evaluate the effectiveness of an intervention or understand how or why it works;
- Curiosity about something in the media;
- State of knowledge in the field;
- Solving a problem;
- Hot topics under discussion;
- Personal values;
- Everyday life; and
- Gaps in the research and theoretical literature.

Techniques for Narrowing a Topic

- Examine the literature
  - You can repeat a previous study;
  - Explore unexpected findings from previous studies;
  - Follow author suggestions for future research;
  - Extend a theory to a new topic.
- Talk over ideas with others;
- Apply research to a specific demographic group;
- Define the aim or desired outcome of the study

The Research Problem

- A research problem (also “issue” or “question”) indicates the need or desire to know or to understand something.
- Problem solving has three steps:
  1. Obtaining relevant information about the problem and potential solutions – research component
  2. Examine alternative approaches and choose among them – decision component
  3. Determine how to implement the decision and take action – action component
- This lecture deals mainly with the first of these three components, recognizing that they are all interconnected.

Research vs. Decision Problems

- Research problems and decision problems may be closely related, especially in subject-matter or problem-solving research.
- Also, decision (subject-matter) problems and action problems usually go together – we make a decision, then act on it.
- Disciplinary research however, may not lead to a specific decision or action. Disciplinary problems are of interest within the discipline and are oriented to the generation of knowledge.

Research vs. Decision Problems Cont…

- When research leads to decision or action it is important to keep the research activity separated from the decision and implementation activities.

- This helps to maintain as much neutrality as possible in the research process and helps the researcher remain objective.

Model of Problem Solving (Johnson, 1976)

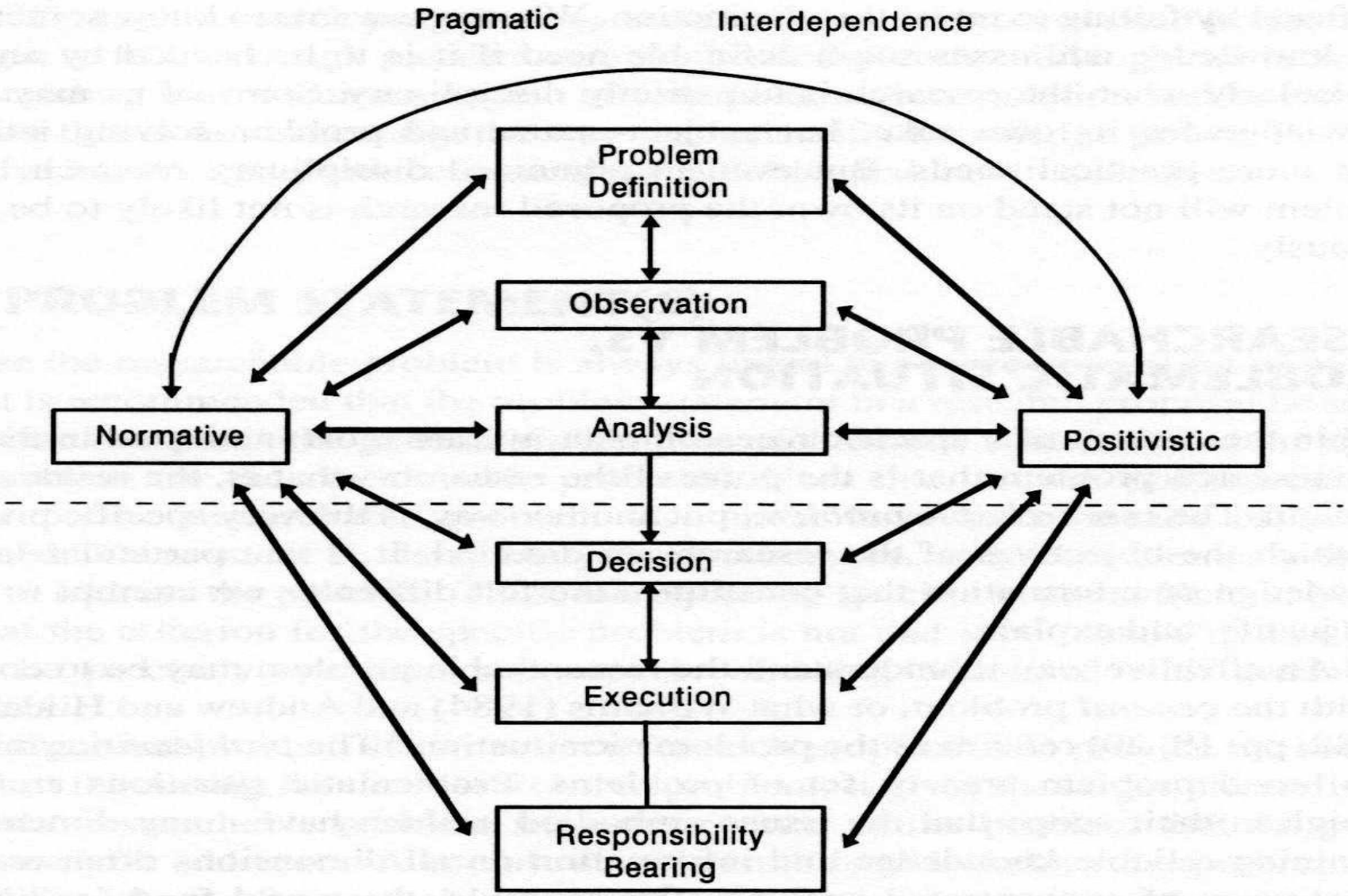


Figure 6.1. Steps in the problem-solving process (Johnson, 1976, p. 226).

Model of Problem Solving Cont….

- This model of problem-solving is not relevant to disciplinary research, which is less likely to require decisions.
- Problem solving for decision making:
  - is initiated with problem definition,
  - progresses to analysis,
  - then decision making and actions follow to implement the decision.
- Normative and positivistic knowledge are used interdependently, impacting each step in the process.

- The dashed line separates research (information generating) from the problem solving process

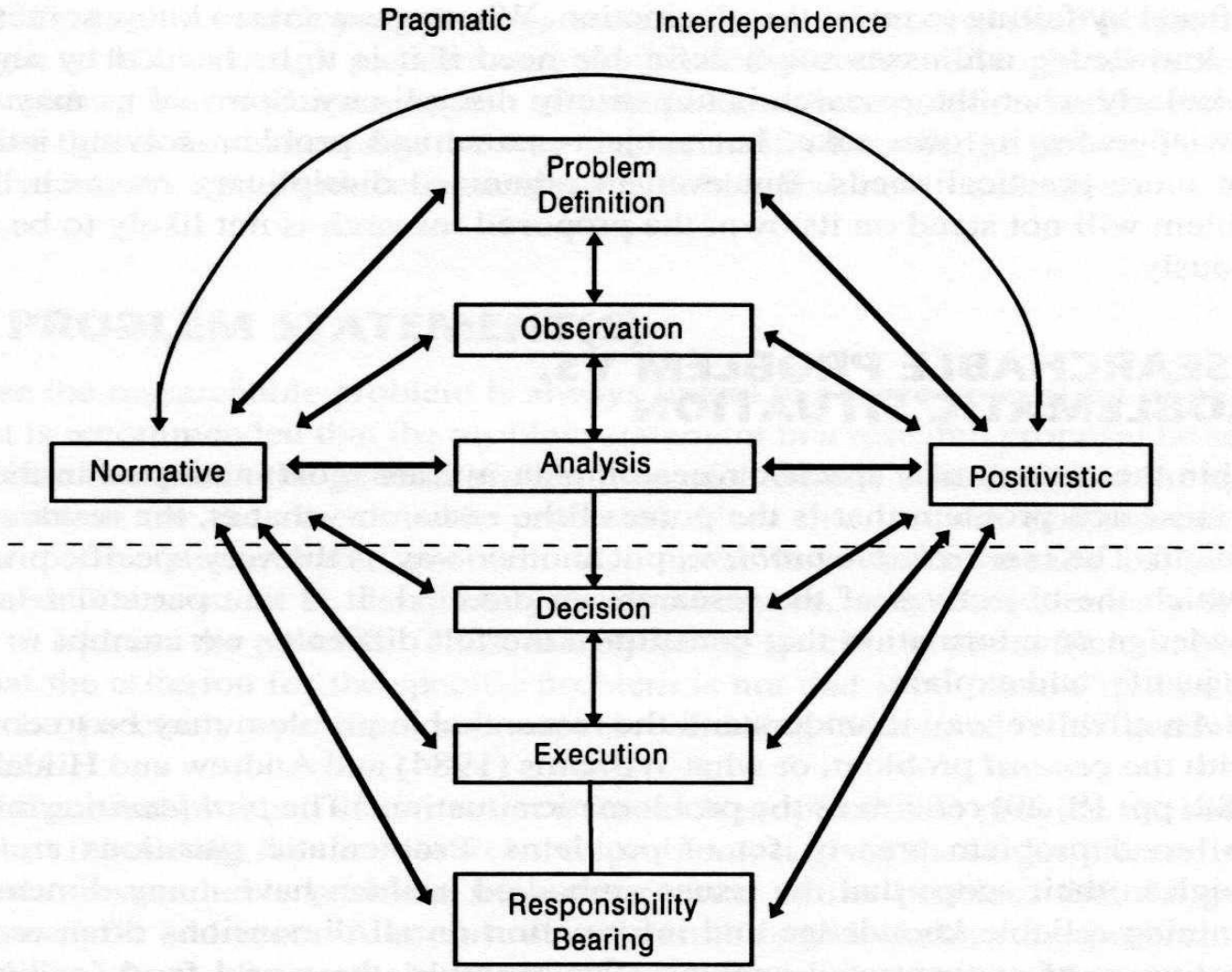


Figure 6.1. Steps in the problem-solving process (Johnson, 1976, p. 226).

RESEARCH

PROBLEM-SOLVING

Research vs. Decision Problems Cont…

- This separation of research from decision making is considered useful, or even valid, by some economists
- They believe the decision process is part of the research process
- However, Johnson (and Ethridge) feel that

  "to mix the research and decision aspects may fragment the researcher's attention, and it may subconsciously influence the outcome of the research." (ie. The research is not objective.)

Research Problem Identification

- This is the most critical and important part of all research projects
- The problem is the focus of both basic and applied research. It is the reason (justification) for the research
- The problem identification and explanation affect the quality, usefulness, effectiveness, and efficiency of the research, more than any other part of the research plan

- ***The research problem is the reason the research is being undertaken***

- The written problem description is the only credible evidence that a clear understanding of the issue has been achieved.

Researchable Problem vs. Problematic Situation

- The ***researchable problem*** is the very specific problem at which the objectives of the research are directed.
- It can be understood by contrasting it with the ***general problem***, also called a problematic situation.
- Problematic situations are very large in scope and have many dimensions.

  e.g. World food (or hunger), Low incomes in developing countries, High birth rates, Low education levels, Restrictive trade policies, unemployment

Researchable Problem vs. Problematic Situation Cont'd…..

- Problematic situations are not researchable within an individual research project.
- But, specific components of these problematic situations are researchable, when broken into distinct components.
- The components must be:
  - confined in scope and complexity, and
  - support a set of research objectives that can be achieved with given **resource constraints** (time & money).
- Research from many individual projects can be combined to address problematic situations.

The Problem Statement

- Research problems are always linked to a more general set of problems, so it is useful to separate the problem statement into two parts:

1) The **general problem** (or problematic situation),
2) The **specific problem** (or the researchable problem).

- Note that the specific problem is not necessarily “small”, but rather it must be precisely specified and capable of being addressed with available resources.

The Problem Statement Cont'd

- The general problem statement provides the background or setting for the researchable problem
- Usually, it helps to introduce the problem with very general statements, then progressively narrow the focus to more specific, precise issues
- However, if the reader of the proposal is already knowledgeable on the subject, the broad general discussion can be reduced

  i.e.. The problem definition should be tailored for the expected audience.

The Problem Statement Cont'd

- For example, consider a situation where a student from a foreign country plans to conduct research about his home country.
  - The student's research committee may not know much about the country,
  - so it is helpful to provide descriptions of the economic, social, political and institutional conditions in the country

The Problem Statement Cont'd

- The general problem statement sets the stage for the specific, researchable problem.
- The to a set specific problem narrows the perspective of issues on which knowledge or information is needed.
- It must be clarified,
  - what knowledge is needed
  - the reasons the knowledge is needed
  - by whom the knowledge is needed
  - the potential purposes it could serve.

The Problem Statement Cont'd

Five guidelines provide a checklist in developing effective problem statements:

A. ***The researchable problem must be sufficiently specific to be addressed with available resources*** (e.g. time, research expertise, data, tools, financial support)

B. ***The dimensions of the problem should be described in objective (neutral) rather than subjective terms***

e.g.. "Wheat producers in the European Economic Community are overpaid."

BETTER:

"Wheat producers in the European Economic Community are subsidized"

The Problem Statement Cont'd….

C. ***The problem must be described sufficiently so that other people can comprehend it***

   (This applies to both general and specific problem statements)

D. ***The researcher's perceptions of the problems may be intuitive, but must be developed logically***

E. ***The problem explanation must provide the reason (justification) for the research objective***

(may be helpful to read the general and specific problem statements provided)

Use of Data

- Data can affect our awareness of a problem and how we perceive the problem.
- It is usually advisable to examine relevant data in the process of developing the problem statements
- In this process, large amounts of miscellaneous facts can be reduced to useful information

Research Objectives

Objectives specify precisely what the proposed research will discover or accomplish – identifying the goals of the research, not the means

- Universally required in research proposals
- Usually best stated as a one-sentence general objective (or goal) and a list of specific objectives
- Objectives are justified by the problem statement and provide direction to the methods and procedures

Research Objectives

- Objectives specify what the research project proposes to accomplish (do, achieve, estimate, determine, measure, evaluate, etc.)
- They are usually best specified in general and specific parts. Often the shortest part of the proposal, but it is the **centerpiece**.

1) **General objective** – states the main purpose of the study. It should derive directly from the research problem statement. One sentence is best!
2) **Specific objectives** – a set or list of sub-objectives, each of which contributes to achieving the general objective

Developing Problem and Objective Statements

- There are no constant rules or procedures to developing problem and objective statements. It may depend on how much you know about the subject of the research.

- If your knowledge of the subject is limited, you may start with a broad consideration of the subject – then narrow the focus by segmenting problem areas into logical components (issues, questions, etc.)

Developing Problem and Objective Statements Cont'd…….

- If you know more about the research area and already have a good idea about the researchable problem, you may need to develop the general dimensions or context of the problem. (i.e.. Opposite from the previous example).
- Once the problem has been defined and general objective identified, the specific objectives often naturally follow, by considering what are important components.
- **A logical and clearly written statement of problems and objectives is often the most difficult part of proposal writing.**