


---



Identifying meaningful and significant topics for research and publication: a sharing of experiences and insights by “influential” accounting authors.

by  
**Chee W. Chow and Paul D. Harrison**  
**Journal of Accounting Education 2002**  
Modified from the Seminar presentation given by  
Carol Vann and Yu Chen, 2007

---

1

---



## Introduction...

- The objective is to extend the current understanding of how a researcher generates a meaningful and significant topic for their accounting research.
  - Important because:
    - There are only general guidelines in prior research.
    - A key determinant of whether a paper is published is the “significance” of the research topic.
- 

2

---



## Prior Literature...

- Prior studies have shown:
    - A key factor in an accounting faculty’s evaluation is their publication productivity.
    - A research topic’s significance is a key determinant of publishing success.
- 

3

---




## The Learning Process...

- Being mentored by a successful and experienced faculty member.
    - Challenges with using a mentor:
      - There may not be one available.
      - The mentor’s experiences may have a limited scope.
      - The mentor’s experiences may be idiosyncratic.
- 

4

---



## Other learning opportunities...

- Articles by prominent researchers who share their research and publication processes.
    - Guidance for writing and communicating effectively. (Ashton, 1998; Zimmerman 1989)
    - Guidance showing how teaching and research can complement one another. (Demski and Zimmerman 2000)
- 

5

---




## This Study...

- Motivated by the belief that a insignificant topic is still insignificant, even if it is executed and packaged well.
- 

6

---



## Two key factors...

- Factor 1: “The process that one employs to generate research ideas.”
  - Factor 2: “One’s ability to differentiate more significant/meaningful topics from less significant/meaningful ones.”
  - This study examines how these two factors enable us to generate significant and meaningful research topics.
- 

7

---



## Methods...

- Sample
    - Randomly selected 31 of the 62 accounting scholars from their earlier related mail survey.
    - Letters were mailed describing the study and asking the following questions:
      - “What makes a research topic especially meaningful and significant?”
      - “Could you take a study or a series of studies that you have finished or published and that you consider to be especially noteworthy, and share the process that you went through in arriving at and developing this idea?”
- 

8

## Sample...

- 20 scholars agreed to the phone interviews, which were tape recorded.
- Following the guidelines of prior research, the data were analyzed independently by both members of the research team, and consensus was reached at each stage by comparing notes.
- While there exists a possibility of biases due to subjective judgments, we believe the “essence and richness of the responses have been preserved.” (Page 185)

9

## Interview findings

- What makes a research topic meaningful/significant?
  - Addresses a real world/societal problem;
  - Significantly impacts literature/knowledge.
    - Fills significant gap/advances theory;
    - Produces salient, novel/new or unexpected results;
    - Addresses hard-to-solve research issue/introduces new procedures.

10

## Addresses a real world/societal problem

- Mentioned by the largest number (11)
- The key factor to be interesting/high impact would be significant consequence to economy and business. (*John Evans*)
- The research topic should have the potential to significantly impact practice or way of thinking. (*Eric Noreen*)
- An important topic is not some kind of theoretical hole or glitch. (*Mark Dirsmith*)

11

## Fills significant gap/Advances theory

- It is not an incremental tweaking of things we already believe, but rather something that results in significant change in beliefs. (*John Evans*)
- The topic should have an ability to get a stream of research in a new direction or start up a new direction. (*George Foster*)

12

## Produces salient, novel/new or unexpected results

- A study is interesting if it is contrary to conventional wisdom or unexpected. (*Michael Shield*)
- The papers should be unique, and there is something that can not be found elsewhere. (*Greg Waymire*)

13

## Addresses hard-to-solve research issue/Introduces new procedures

- The research topic should have a contemporary flavor to it. (*Dan Collins*)
- Promotion of new innovations and procedures
  - particularly using the capabilities of information technology to resolve accounting problems. (*Al Leitch*)

14

## Identifying and developing ideas into publications...

- The scholars described their ideas, falling under four categories:
  - Following and critically looking at the literature.
  - Keeping abreast of real world issues.
  - Working with colleagues.
  - Other.

15

## Following and critically evaluating the literature...

- Mentioned by 13 of the scholars as their primary method of identifying and developing research ideas.
  - Gaps in developed areas.
    - Felt prior work had been too narrow and, as he began to learn more, he realized there was a greater complexity than originally thought, which opened up more questions to be answered.
    - He began to view his research as “What did we learn from this and what are still open-ended questions” and, thus, moved the research process forward. (*Arnold Wright*)
  - Gaps in new areas.
    - Assumptions regarding activity-based costing that were relied upon but had not been tested. (*Eric Noreen*)

16

## Contradictions in prior research.

- *Dan Collins*: When examining whether pricing anomalies, which appear to be inconsistent on the surface, are able to exist simultaneously, he discovered a material error in the measurement of accruals.
- A follow-up paper examined three research settings where this measurement error has an impact.
- They did not originally plan to do multiple papers, but new ideas and questions came to mind while working on the original topic.

17

## Using a inter-disciplinary approach...

- *Michael Shields & Joan Luft*: Independently looking at accounting, psychology, and marketing literature in addition to brainstorming with colleagues, allowed them to begin organizing their thinking.
- This led to several hypotheses, the experiments required to test them, which brought several more hypotheses to mind.
- Once again, what began as one research paper became several.

18

## Keeping abreast of real world issues...

- “Research topics are more meaningful and/or significant if they address issues of interest to the academic literature, the real world, or both.” (Page 194)
  - Relate academic literature to real world issues.
  - Start with the real world issues and examine the extent they had been addressed in the academic literature.

19

## Ideas from the practice of accounting/auditing...

- *Ted Mock* spent a year with Peat Marwick and we discussed three or four lines of research or areas of research that they were interested in having work done on.
  - One was internal control and with my background in information systems and computers, I felt that was possibly a good match.
  - Worked with Jerry Turner, manager with Peat Marwick.

20

## Discussions with persons outside the accounting profession...

- *John Evans* was discussing some issues facing the hospital industry with the hospital's CFO, was able to develop a study to examine issues concerning healthcare costs.
  1. First, when they put the program in place, did it have a real effect on the decisions the physicians were making at the hospital in terms of getting the patients out of the hospital sooner? (Yes)
  2. Did it ultimately have the financial impact that you'd really like? (No)

21

## Working with colleagues...

- Four scholars placed a significant emphasis on this factor's importance to their successes.
  - Several anecdotes in article
- CB's comments:
  - Sharing feedback often leads to collaboration
  - Bring in another author to deal with difficulties

22

## “Other” methods...

- This category had only one response:
  - This respondent said that “he/she frequently mulled things over for possibly years before deciding how to attack a problem.” (Page 198)

CB's Comment: Buckley, Buckley & Chiang offer more ideas


23




# 10 Tips for Publishing in Premier Journals

**Lawrence D. Brown**  
**Georgia State University**  
Mid-South Doctoral Consortium  
February 8, 2008


1

- 
- **When should you do your research?**
    - Make it your top priority. Devote some time to your research every day.
    - Identify your most productive time of day and conduct your research during this time.


2

- 
- **How do you engage the reviewer and editor?**  
...by answering the following questions early on in the paper:
    - “What is the problem,”
    - “Why is it important,” and
    - “How will it be solved?”


3

- 
- **How do you select a journal?**
    - Select topics of interest to the target journal.
    - Examine your references.
      - At least some of them should be to articles published in the journal to which you are submitting.


4

- 
- **Does your paper make a significant incremental contribution?**
    - If not, it is unlikely to be published in a premier journal.
    - Generally, such papers are ones that are likely to stimulate additional research (typically ones that are likely to be highly cited).


5

- 
- **Have others read your paper before you submitted it?**
    - Seek comments of experts in your field before submitting your manuscript for possible publication.
    - One excellent way to do this is to present at workshops, including your own school's.

6

- 
- **Who should you select and work with co-authors?**
    - Determine your strengths and weaknesses, and try to address your weaknesses by working with co-authors who have strengths in areas where you are weak.
    - When working with co-authors, carefully lay out each person's responsibilities.
    - Ask others who have worked with your prospective co-authors what their experiences have been.

7

- 
- **How should you write the paper?**
    - Do not write much of it before obtaining results and do not get lots of results before starting to write it.
      - Writing the paper helps determine what additional results to procure and vice versa.
    - Set deadlines, both when conducting initial research and revising papers.
    - If the results are poor and you are confident they will not get better, abandon the project.

8



- **How do you deal with editors and reviewers?**
  - Ask someone who has success publishing in the particular journal to help interpret the editor's letter and the reviews.
  - Do as much as you can to satisfy the concerns of the editor and the reviewers.
  - Generally, do not argue with the reviewers/editor.
  - Do not do "new" things the editor and the reviewers do not ask for.

9



- **Do not adopt the '24 hour rule.'**
  - Carefully consider the reviewers' comments before submitting your paper to a different journal. In most cases, reviewers make valuable comments.
  - There is a good chance you will get the same reviewer at the 'next' journal.

10



- **How do you revise a paper for re-submittal to the same journal?**
  - Write an initial response to the editors and reviewers before engaging in a rewrite or undertaking additional empirical work.
  - Read the paper and ask yourself, if you were the reviewer/editor, are [you] satisfied with the revision (i.e., would the reviewer/editor conclude that you have substantially increased the probability of getting the paper published?)

11

# MANAGEMENT AND ACCOUNTING WEB

<a href="#">Introduction</a>	<a href="#">Main Topics</a>	<a href="#">Bibliography</a>	<a href="#">Books</a>	<a href="#">Journals</a>	<a href="#">Textbooks</a>	<a href="#">Marketplace</a>	<a href="#">Links</a>	<a href="#">Software</a>
<a href="#">Contents</a>	<a href="#">Search maaw</a>	<a href="#">Summaries</a>	<a href="#">Maaw's Book</a>	<a href="#">Featured Pubs</a>	<a href="#">Grad Course</a>	<a href="#">Maaw's Blog</a>	<a href="#">Gadgets</a>	<a href="#">Videos</a>



## **Buckley, J. W., M. H. Buckley and H. Chiang. 1976. *Research Methodology & Business Decisions*. National Association of Accountants.**

Summary by James R. Martin

<a href="#">Preface</a>	<a href="#">Chapter 1 A Framework For Methodology</a>	<a href="#">Framework for Research Methodology Graphic</a>	<a href="#">Chapter 2 Criteria for Selecting A Research Methodology</a>
<a href="#">Chapter 3 The Scientific Study and Classification of Business Decision Problems</a>	<a href="#">Chapter 4 Concluding Remarks and Application</a>	<a href="#">Flowchart for Classifying Research Methodology</a>	

### [Study Human Behavior](#)

Earn B.S. in Human Services, Psych,  
Criminal Justice - Online & Campus  
[Phoenix.edu](http://Phoenix.edu)

### [Statistics Research](#)

Expert Data Analysis & Stat. Advice Help  
With Thesis And Dissertations!  
[www.StatisticsSolutions.com](http://www.StatisticsSolutions.com)

### [Survey Research Software](#)

Understand people's attitudes and opinions  
using software from SPSS.  
[www.spss.com](http://www.spss.com)

Ads by Google

## Preface

This monograph is part of a larger project developed jointly by the National Association of Accountants and the Society of Industrial Accountants of Canada. It deals with research methodology and research on business decisions. The study is intended for practitioners as well as academics and can serve as a primer on methodology. The purpose of Chapter 1 is to provide a framework for finding and solving research problems. Chapter 2 extends the framework to address the criteria for choosing and evaluating different research methodologies. Chapter 3 is dedicated to business decision problems and Chapter 4 provides a summary of eleven examples of research on decision making.

## Chapter 1 A Framework For Methodology

### Need for a Framework

This chapter begins with some questions that are difficult to answer to the satisfaction of everyone,

such as the following.

What is research?

Who is a researcher?

Where do research problems originate?

How should the researcher go about solving his or her problem?

Where should the researcher go for information?

How does the researcher know if and when the problem is solved?

This monograph provides a framework to aid in designing and conducting research in a systemic way.

## **A Framework for Research Methodology**

The authors define research methodology as "the strategy or architectural design by which the researcher maps out an approach to problem-finding or problem-solving." Their framework has six parts as indicated below. Parts I and II are related to problem finding, while parts III through VI relate to problem solving.

### **I. Problem Finding**

#### **Formal Approaches:**

Prior research - Inductive fact finding that leads to generating a theory.

Deductive relates to testing a theory.

Analog method - Using knowledge gained in one problem area to formulate a research question in a related area.

Renovation - Replacing defective components of a theory. This requires training in structural analysis, i.e., the ability to diagnose a system to find the defective part.

Dialectic method - Developing counter-plans for challenging, refining or deposing an existing theory. Price level adjustments to financial statements is mentioned as an example.

Extrapolation - Extending stable trends into the future and posing questions related to predicted outcomes.

Teratological analysis - Similar to extrapolation, but involves unstable trends, or unexpected futures. Radical what if questions related to contingences.

Morphology - A method of formalizing combinational possibilities in complex problems.

Decomposition - Breaking problems into component parts.

Dichotomy - separating a problem into questions that can be answered yes or no. Examples include flow charting, network analysis, algorithms, and computer programming.

**Aggregation** - Aggregate research findings and apply them to more complex problems. Example - Applying input-output analysis, utility theory and motivational theory to measuring managerial performance.

### **Informal Approaches:**

**Conjecture** - Based on intuition or hunch.

**Phenomenology** - Research problems created by a phenomenon, e.g., computers, conglomerates, environmentalism, etc.

**Consensus** - Group agreement that there is a problem. The FASB approach is given as an example.

**Experiential** - Research to find ways to avoid a reoccurrence of a problem, e.g., lawsuits, liquidity problem, customer complaints.

## **II. Research Problem**

What is a research problem? A research problem:

1. must be defined properly,
2. must be posed in solvable terms,
3. must be logically connected to the environment from which it was drawn so that the solution can be applied to that environment.
4. has been screened against existing body of knowledge, i.e., not been solved,
5. has a potential significant contribution.

Examples of deficiencies in defining the research problem include:

1. **Mislabeled the problem.** Confusing descriptive with normative. Descriptive questions relate to empirical research, observing what is. Normative questions involve opinion research, i.e., what should be. Applying past or future problems to the present. Using students to study the behavior of business people.
2. **Defining a problem that is unsolvable** such as how businessmen solve problems.

## **III. Research Mode**

A researcher needs to know which mode they are in to understand the consequences of the methods.

**Induction:** the process of generating theory - from specific facts to generalizations. Relevant questions search for truth, e.g., which, where, who, why, whether, how, and what. Avoid one's own theories or opinions.

**Deduction:** the process of testing theory- testing a hypothesis against theory - from general to specific. Relevant questions include; will questions such as will it work?, is questions such as is it a good idea?, set-response questions such as how do people feel?, task-response questions such as did he do a good job, and if questions such as will this occur if we do that?

## **Research Strategies, Domains and Techniques**

Research methodology includes a set of strategies, domains and techniques used in generating or testing theory or problem solving.

#### IV. Research Strategy

Research strategy refers to the nature of the data, the process of obtaining the data and the way we go about generating or testing theory. Research strategies include: opinion, empirical, archival and analytic.

**Opinion** - Includes views, judgments or appraisals of individuals or groups. There is no direct observation of the facts. Techniques Include questionnaires, opinion polls, interviews, delphi (for groups where opinions are stated, if no consensus, then circulate and include invitation to revise, continue until a consensus is reached or appears infeasible) and brainstorming.

**Empirical** - Based on observation or experience. Direct access to the facts. The researcher either experiences the phenomena or is an eye-witness to the events.

Domains include:

**Case** - where there is no attempt to structure the research, i.e., no experiments, design or control, field and laboratory.

**Field** - includes experimental design, but no control. Has a structure and method of collecting and analyzing data. Time and motion studies given as an example.

**Laboratory** - Includes experimental design and control. Simulation is an example.

The authors support their definition of empirical research strategy with the following comments. "The term empirical has acquired an ambiguity in the accounting literature. In its broadest sense it has come to mean the use of "real world" data in the application of research, and as such would apply to opinion or recorded data which purports to be of real-world origin. But this fails to distinguish between first and second-hand evidence, or between impressions and reality. Because these distinctions are important, as we will see in the course of this study, we favor a stricter construction of the term. Our definition, we believe, is substantiated widely in the methodology of science literature." (See p. 24).

**Archival** - Based on recorded facts, but no direct observation of the facts.

Domains include:

**Primary** - original documents, e.g., invoices, purchase orders.

**Secondary** - journals, ledgers, financial reports.

**Physical** - fingerprints, footprints, dog tracks.

Techniques include scanning, observation, sampling and content analysis, i.e., a formal technique for evaluating written or oral communication. Erosion and accretion measures are used for research in the physical domain.

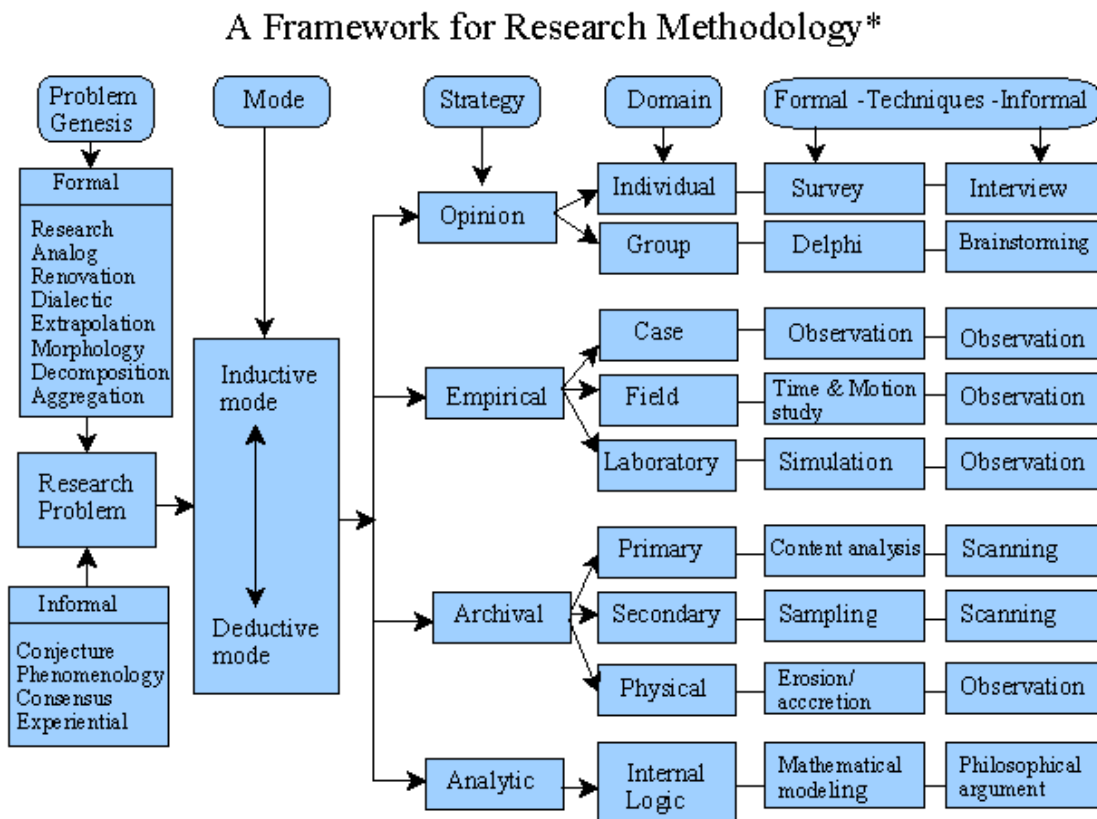
**Analytic** - Based on the internal logic of the researcher.

**Inductive argument** - from specific to general, generalizing from incomplete data or drawing conclusions from inadequate evidence. Rules are: agreement, difference, joint agreement and difference, residues, and concomitant variations (i.e., correlated).

**Deductive argument** - from general to specific. Syllogism - a form of reasoning where a conclusion is drawn from two premises. Formal techniques include: mathematical logic, mathematical modeling, formal organization techniques (flowcharting, network analysis, decision trees, algorithms, and heuristics). Informal techniques include: philosophical argument, the scenario, the dialectic (fully developed argument and counter argument), the dichotomous method (series of yes and no questions) and the Teratological method (formulating hypotheses beyond the limits of rationality).

**Summary: Problem - Mode - Strategy - Domain - Techniques**

These concepts are summarized in the illustration below adapted from Exhibit 1 in the monograph.



\* Adapted from Buckley, Buckley & Chiang Exhibit 1, p. 15.

**What is Research?**

Conceptually, research is defined as the orderly search for truth. Operationally, research is:

1. an orderly investigation of a defined problem,
2. using an appropriate scientific method or methods,
3. to gather adequate and representative evidence,

4. producing conclusions drawn from logical reasoning without bias,
5. that can be validated,
6. and yield general principles or laws that may be applied in similar conditions.

Artifacts of research form a symbolic and rational system of inquiry and the language of research. These artifacts include facts, experiences, data, concepts, constructs, hypotheses, conjectures, principles and laws. These terms are defined on page 29.

### Steps in the Scientific Method

The following steps are designed to achieve reliability and validity.

1. Recognition that knowledge stems from observations.
2. Define the problem. Why and what is to be achieved.
3. Formulate a research plan including appropriate strategies, domains and techniques. The purpose of the plan should be directed towards hypothesis construction (induction) or hypothesis testing (deduction).
4. Conduct inquiry in accordance with the plan.
5. State the outcome in explicit terms that may support or refute the hypothesis.
6. State the conclusions with sufficient support and clarity to establish what was done, what was found, and what significance the findings may have, including the relationships to the work of others in terms of similarities and differences.

### Who is a Researcher?

A researcher is anyone who uses the scientific method.

### Research and Creativity

Research does not eliminate the need for creativity. Research supports, but does not replace the intuition and judgment of decision makers.

## Chapter 2 Criteria for Selecting A Research Methodology

A flowchart for selecting a methodology is provided on page 34. It maps out the options and can be used to classify research projects.

### Strengths and Deficiencies of Different Research Methods

Method	Strengths	Deficiencies
<b>Opinion</b>	Suited for research on attitudes, futures research, can use large samples, easiest method to use, and lends itself to many types of data analysis. Herzberg's work on hygiene factors and motivators is mentioned as an example. See the <a href="#">Herzberg</a>	Opinion is not fact, perceptions differ from reality. Methodology is subject to bias in the survey instrument, and in biases in the way people respond to questions. Opinions are unstable over time, and group opinion is difficult to capture and analyze. See the

	<a href="#">summary</a> for an illustration similar to Exhibit 6.	<a href="#">Ethics topic</a> for more on bias.
<b>Empirical</b>	Based on facts, not opinions. Best suited to analyzing actual behavior, fact finding and seeking reality. Gets the researcher involved. Case and field studies provide a rich context for research. Laboratory studies provide the most control. Can use sophisticated techniques such as gaming and simulation.	In general, only a small number of situations can be studied in detail and there is limited ability to generalize from these isolated cases. It is restricted to the present and is the most time consuming method. Case research lacks experimental design and control. Field research has experimental design, but lacks control (See 8 steps below). Laboratory has experimental design and control, but observations may be deficient for several reasons (pp. 38-39).
<b>Archival</b>	Best suited for analysis of data, in documents, historical analysis, gathering hard evidence, extrapolation of trends, etc. Ability to access a large quantity of hard, often factual information.	Selective depositing - only certain things are recorded, e.g., the accomplishments of white males. Selective survival - much is lost, unpublished, revised etc. Selective retrieval - subject to bias and sampling errors. Filling in the gaps - editorializing. Biases of researchers. Skill deficiencies of the researcher (anachronism, false periodization, interminability, chronicism and staticism (p. 41.)
<b>Analytic</b>	There is no need to search for additional data and analytic research is not limited by existing data. It provides the broadest scope for imagination and creativity. Best suited for the use of logic, philosophy, operation research techniques.	The most abused strategy and the most difficult to criticize. Requires a first rate mental ability that is rare. Can more readily be used to mislead. Often sloppy. It is subject to logical errors (see below), problems of semantics, etc. Temptation to focus on trivial and irrelevant problems. Can only create theory, never proof.

### Field Research - Eight Steps (p. 38)

1. Recognize and identify problems.

2. Explore the problem - gathering information and defining the problems specifics.
3. Formulate the research objectives.
4. Estimate the costs.
5. Define the population.
6. Select the sampling design.
7. Design the research implement.
8. Plan and execute the field operations.

### **Examples of poor logic in accounting Analytic research (p. 43)**

1. Building a strong argument on a weak premise.
2. Jumping from a few instances to generalizations.
3. Jumping from a generalization to a specific instance.
4. Ignoring other possible causes.
5. Ignoring other possible effects.
6. Circular reasoning.
7. Using an illogical train of thought.

### **Experimental Design and Control Criteria (p. 46)**

**Internal validity** - Relates to the following questions:

1. Is the research design appropriate?
2. Does the design include all the important factors and relationships?
3. Have the independent variables been controlled to prevent bias?
4. Has randomization been used when possible to reduce systematic bias?

**External validity** - Relates to the problem of generalization. Can the findings be applied to other cases on a broad basis?

### **Broader Framework for Selecting and Evaluating Methodology**

The authors say validity has been stressed to the exclusion of other important criteria and propose a broader framework.

1. Holism - ability to comprehend the problem in totality.
2. Precision - degree of refinement of a problem for objective measurement.
3. Internal validity - ability to control the variables in the problem.
4. External validity - extent to which the findings are applicable to other similar situations.
5. Quantitative - ability to define or analyze problems in quantitative terms.
6. Qualitative - ability to define and or analyze the problem in qualitative terms.
7. Relevance - value of the findings to significant areas of need and application.
8. Skill transfer - extent to which it is difficult to train and supervise research assistants.

### **The Need For Balance**

The authors argue that we should use eclectic methodology. The practice of law is an example where all strategies are used to build a case such as opinions, eye-witness reports, lab evidence, library research, logic, philosophy, and cross-examination. A narrow focus limits the problems that we can

study and excludes many problems including research on decision-making.

Research in accounting has been biased in favor of theoretical essays and testing hypotheses. We need more inductive research aimed at generating theory. We need to include greater attention to abstract problems such as decision processes that could yield benefits for the improvement of management practices.

### **Chapter 3**

#### **The Scientific Study and Classification of Business Decision Problems**

The authors make a distinction between the science of decision-making (Praxeology) and the art of decision-making. The art of decision-making cannot be studied or learned. The science of decision-making can be studied and learned, as any science by applying deductive and inductive analysis.

Exhibit 8 provides a summary (based on the work of Murdick and Ross) showing the development of scientific management from behavioral theory (human relations and social system) to management theory (experimental analysis and functional analysis) to management science (decision analysis, quantitative analysis and technology). The chapter includes a discussion of the benefits from each of the areas of research and provides a classification scheme for business decision problems.

#### **Benefits of Behavioral Research**

In this section the authors discuss the work of several authors including Hawthorne, Seashore, Van Zelst, Fiedler, Zander, Maslow, Mayo, Vroom, and Likert, etc.

The work of many of these authors has helped us understand the behavior of groups. Group control often neutralizes company control systems. Intra-group competition can have disastrous effects on group cohesiveness, while inter-group competition has the opposite effect. Formal systems are viewed by employees as propaganda. The grapevine is relied on for information. Organizations have unique cultural, ideological, sociological, attitudinal and technological environments.

Maslow's needs hierarchy has been useful in the area of motivation. Vroom's work (Performance = ability x motivation) revealed that motivation is more important for performance than ability. Likert's work on leadership produced four styles including: exploitive, benevolent, consultative and participative leaders.

#### **Benefits of Management Theory Research**

Fayol and others (e.g., Mooney and Reiley, Gulick, Terry, Koontz and O'Donnell) provided and expanded the functional approach to management. For example, Fayol indicated that management functions include: planning, organizing, staffing, directing and control. Harvard developed and promoted the experiential approach using case studies.

#### **Benefits of Management Science Research**

Developments in this area include decision analysis, quantitative analysis and management technology.

Barnard promoted the science of decision making. Simon refuted the concept of the rational economic man, i.e., that a decision maker can define the problem accurately, search for all possible solutions, assess the benefits of each and choose the optimal solution. Simon introduced the concepts of:

Bounded rationality - people have fragmented knowledge of consequences.

Means-ends analysis - defines a sequence of decision points with a limited set of alternatives.

Satisficing - people seek satisfactory rather than optimum solutions due to mental limitations and information overload. Miller and Haire's work supports.

The concurrency of phases - phases in the decision process run concurrently, rather than in fixed steps. Goals constantly change.

Quantitative methods developments have been continuous and include time and motion study, the Gantt chart, PERT, CPM, price level models, game theory, decision trees, program planning and budgeting systems (PPBS).

Management Science researchers have considered problems in many areas including inventory, allocation, queuing, sequencing, routing, replacement, competition, and search.

### **Classification of Business Decision Problems**

A classification scheme appears in Exhibit 10 on page 60. The classifications include:

Cataloging - identification only.

Grouping - Dichotomous - classify into one of two categories or multiple categories.

Dimensioning - Attributes of two or more problems are juxtaposed to produce a contrasting effect.

Ordering - Ordinal - establishes rank order.

Interval - determines distance of intervals and levels of complexity.

Ratio - items positioned in relation to scales.

Systemizing - Decomposing - breaking a problem into parts.

Network - connect elements of a system by cause.

Static reciprocity - mapping (static) cause and effect relationships.

Dynamic - mapping (dynamic) cause and effect relationships.

### **A Typology for Business Problems**

Business problems are shown in a matrix of combinations related to the quality of data (objective or subjective) and the nature of the relationships among the decision variables (simple and complex). A flow chart classifying problems into these four categories (subjective-simple, subjective-complex, objective-simple and objective-complex) is presented in exhibit 21.

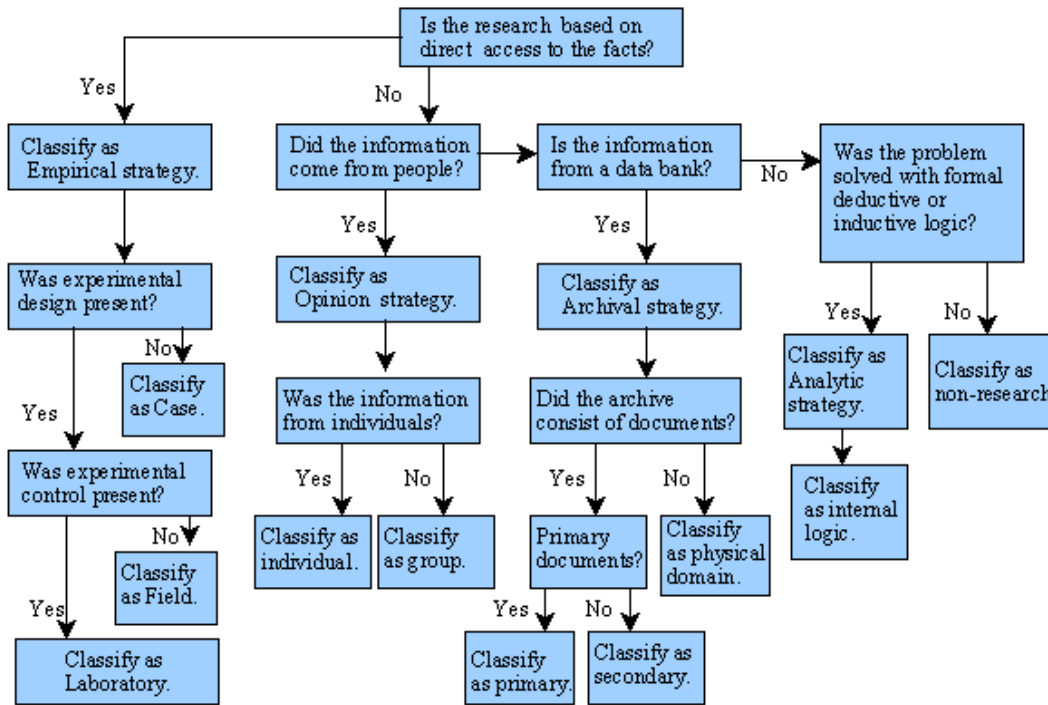
This chapter includes many examples and illustrations not mentioned in this brief summary.

## **Chapter 4 Concluding Remarks and Application**

This chapter includes a summary of eleven examples of research on decision-making (Exhibit 25)

and a flowchart for classifying methodology (Exhibit 26). The flowchart below was adapted from Exhibit 26.

### Flowchart for Classifying Methodology\*



\* Adapted from Buckley, Buckley & Chiang Exhibit 26, p. 80.

[Research Methods Main Page](#)    [Decision Theory Main Page](#)    [Theories Main Page](#)

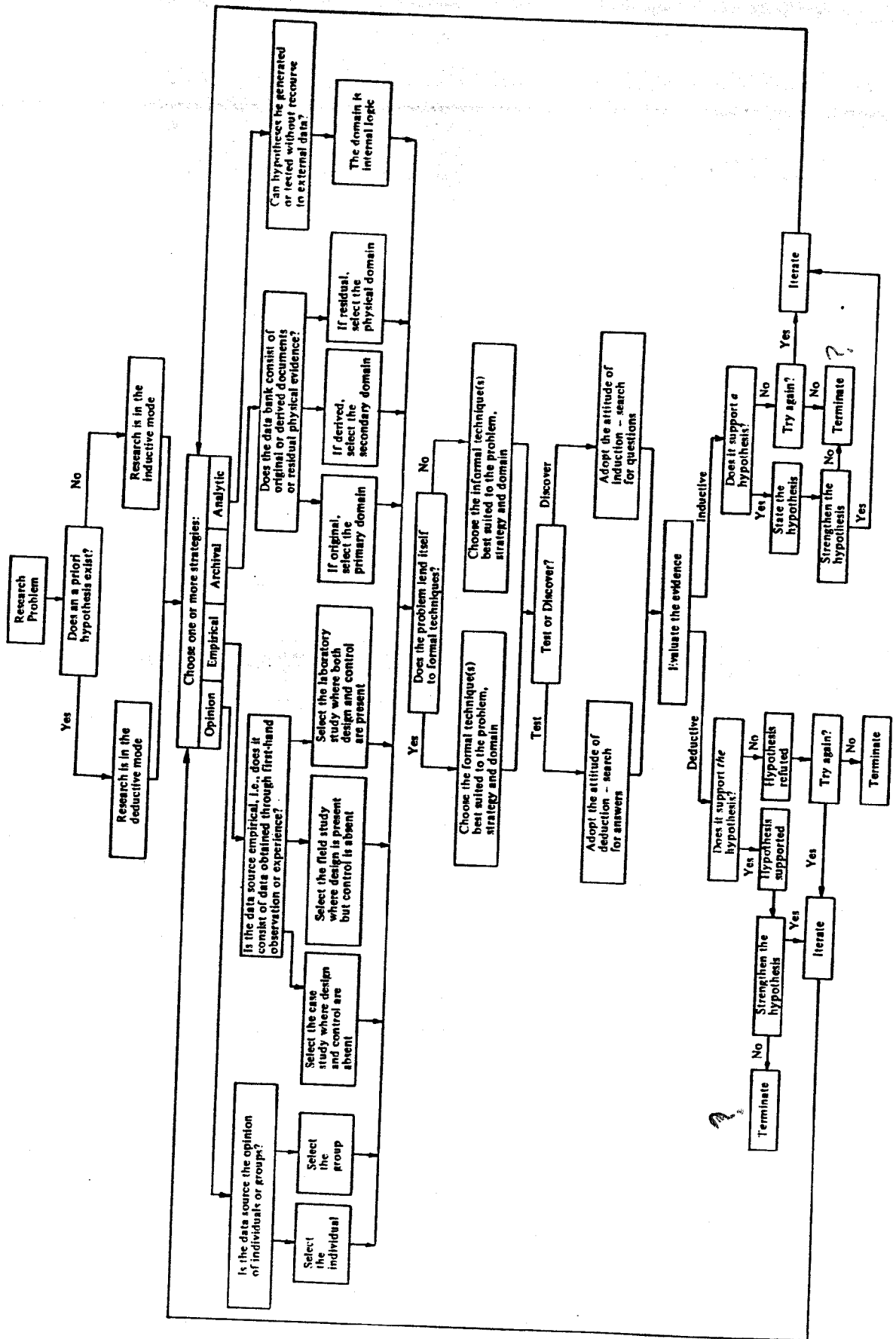
<a href="#">Books</a> <a href="#">DVDs</a> <a href="#">Electronics</a>	<b>MAAW's Marketplace</b>	<a href="#">Magazines</a> <a href="#">Software</a> <a href="#">VHS</a>
--	---------------------------	--

<p><a href="#">Study Human Behavior</a>                  Earn B.S. In Human Services, Psych, Criminal Justice - Online &amp; Campus</p>	<p><a href="#">Statistics Research</a>                  Expert Data Analysis &amp; Stat. Advice Help With Thesis And Dissertations!</p>
---	---

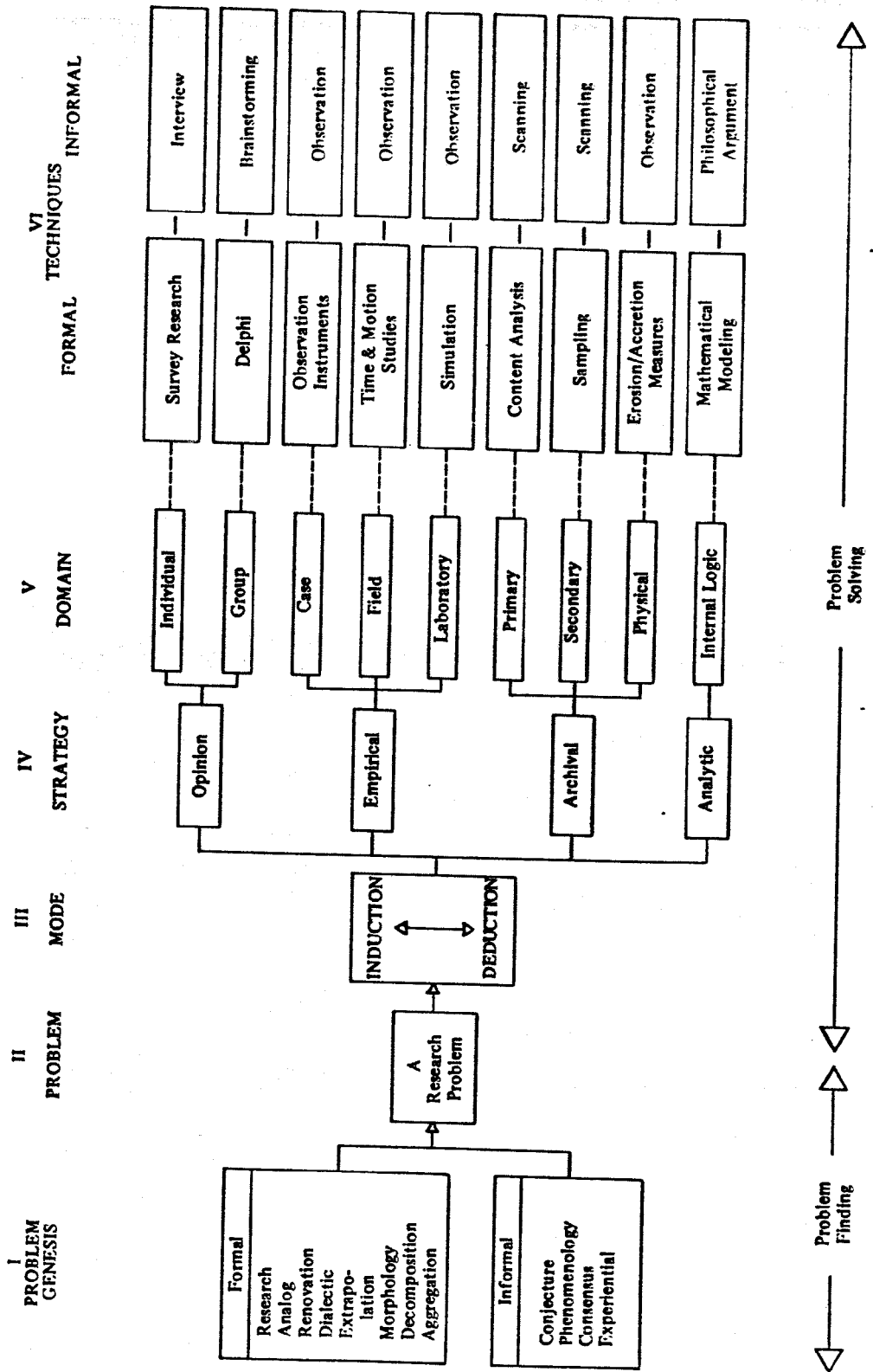
Google

Web     maaw.info

# Exhibit 5 A Flowchart for Selecting Methodology



**Exhibit I**  
**A Framework for Research Methodology**



**Exhibit 7**  
**Criteria for Selecting Methodology**

Methodological Components	Criteria							
	(1) Holism	(2) Precision	Validity		(5) Quantitative	(6) Qualitative	(7) Relevance	(8) Ease of Skill Transfer
			(3) Int.	(4) Ext.				
<b>A. STRATEGIES:</b>								
Opinion.....	Low	High	Low	High	High	Low	Low	High
Empirical.....	High	Medium	Medium	Low	Low	High	Medium	Low
Archival.....	Medium	Medium	High	Medium	Medium	Medium	High	Medium
Analytic.....	High	High	Low	Low	Medium	High	Low	Low
<b>B. DOMAIN:</b>								
Individual.....	Low	High	Low	High	High	Low	Low	High
Group.....	Low	Medium	Low	Medium	Medium	Medium	Medium	Low
Case Studies.....	High	Low	Low	Low	Low	High	High	Low
Field Studies.....	Medium	Medium	Medium	Low	High	Medium	Medium	Medium
Lab. Studies.....	Low	High	High	Low	High	Low	Low	High
Primary Sources.....	High	Low	Medium	Low	Medium	High	Medium	Medium
Secondary Sources.....	Medium	High	High	High	High	Low	Low	High
Physical Traces.....	Low	Medium	Medium	Low	Medium	Medium	High	Low
Internal Logic.....	High	High	High	Low	Medium	High	High	Low
<b>C. SELECTED TECHNIQUES:</b>								
Statistical.....	Low	High	High	Low	High	Low	Medium	High
Survey.....	Medium	Medium	Low	Medium	Medium	Medium	Low	Medium
Observation.....	High	Low	Low	High	Low	High	High	Low
Simulation.....	Medium	High	High	Medium	High	Low	Medium	Low
Content Analysis.....	Medium	Medium	Medium	Low	Low	High	High	Low
Heuristics.....	High	Medium	Medium	High	Medium	High	High	Medium
Erosion/Accretion.....	Low	Medium	Medium	Medium	High	Medium	High	Medium
Mathematical Modeling.....	Low	High	High	Low	High	Low	Low	Low
Mechanical.....	Low	Medium	Medium	Low	High	Low	Medium	High
Logic.....	High	High	High	Low	Medium	High	High	Low

Some statistical concepts

## The “General Linear Model”

Regression and ANOVA techniques are generally equivalent!

- Designed experiments lend themselves to ANOVA, while regression is suitable for analysis of natural data, such as *archival* data

DV(s)	IV's	Model	Notes
Y	x, x, x	Regression	Interval level (dichotomy qualifies, dummy variables)
Y	X (categories)	ANOVA	
Y	X (categories), x	ANCOVA	Effect of x must be same in all X groups
Y, Y	X (categories)	MANOVA	

### Questions:

What does a significant omnibus F test in an ANOVA tell us?

Bonus question: What is the exact meaning of the “p value” of an F or t statistic? It is the probability that [what?]\_\_\_\_\_

If the F test is significant in a one-way ANOVA with several treatment groups, what does the researcher probably do next in the analysis?

## **Publications**

### **(Most Recent First)**

“The Peer Review Process in Finance Journals.” With Dana Hermanson and James Tompkins. Forthcoming in *Journal of Financial Education* (2008)

“An Examination of the Peer Review Process in Accounting Journals.” With Dana Hermanson and Timothy Louwers. *Journal of Accounting Education* 26 (2008) 55–72.

“Goliath Corporation: An Instructional Case in Transfer Pricing Policy.” With Denton Collins. *Journal of Accounting Education* 23:4 (2006): 264-276.

“Does ‘Political Bias’ in the DIT or DIT-2 Threaten Validity in Studies of CPAs?” With Thomas J. Phillips, Jr., and Stephen B. Scofield. *Behavioral Research in Accounting* 17 (2005): 23-42.

“An Unusual Cash Control Idea.” *Journal of Accounting Education* 22:2 (2004): 119-129

“An Empirical Reanalysis of the Selection-Socialization Hypothesis: A Research Note.” With Stephen B. Scofield and Thomas J. Phillips, Jr. *Accounting, Organizations and Society* 29 Issue 5–6 (2004): 543-563.

“Parameter Prediction Models For Industrial Learning Curves: An Empirical Evaluation.” With E. V. McIntyre. *IIE Transactions* 35 (2003): 1077–1090. (This is the premier journal in industrial engineering.)

“The Role of Performance Plans in Mitigating Agency Problems: An Empirical Examination.” With Sanjay Gupta. *Quarterly Journal of Business & Economics* 40, Issue 3/4 (2001): 79–99.

“Research Misconduct in Accounting Literature: A Survey of the Most Prolific Researchers’ Actions and Beliefs.” With James Hasselback and Julia Karcher. *Abacus* 37:1 (2001): 26–54.

“Economists Behaving Badly? A Survey on Three Areas of Ethical Behavior.” With J. List, T. Martin, and P. Euzent. *Economic Inquiry* 39 (2001): 162–170.

“Do Students’ Judgment Models of Instructors Effectiveness Differ across Course Level, Course Content, or Individual Instructor?” With Sanjay Gupta and Richard Schrader. *Journal of Accounting Education* 18 (2000): 15–34.

“Learning-Curve Estimation of Production Costs and Labor Hours Using a Free EXCEL Plug-In.” *Management Accounting Quarterly* Summer 2000: 25–31. (Article was mentioned in *ComputerWorld*, 7/2/2001, with ½ million circulation, bringing many additional inquiries and web hits.)

CITATION  
of  
EXCELLENCE “Judgement in Learning-Curve Forecasting: A Laboratory Study.” With Sanjay Gupta. *Journal of Forecasting* 18 (1999): 39–57. Citation of Excellence from Anbar International Management Database.

CITATION  
of  
EXCELLENCE “The Effects of Monetary Incentives on Worker Learning and Performance in an Assembly Task.” With Lawrence D. Brown and Anthony F. Cocco. *Journal of Management Accounting Research* 10 (1998): 119–131.

“A Comparison of the Quality of Multiple-Choice Questions from the CPA Exam and Textbook Test Banks.” With Julia Karcher and Barbara Clevenger. *Accounting Educators’ Journal* 10 (1998): 12–28.

“The Relation Between Fit and Prediction for Alternative Forms of Learning Curves and Relearning Curves.” With E. V. McIntyre. *IIE Transactions* 29 (1997): 487–495.

“Evidence on the Extent of the Steepness Bias in Visual Estimation of Trends.” *Perceptual and Motor Skills* 82 (1996): 731–734.

“The Effects of Schema, Difficulty, and Type of Material upon the Retention of Accounting Knowledge.” With Julia Karcher and James Lukawitz. *The Accounting Educators’ Journal* (Spring 1993): 21–41.

“The Effects of Mode of Information Presentation and Perceptual Skill on Bond Rating Change Decisions.” With Michael Nibbelin and Robert Zmud. *Advances in Accounting* (1992): 159–174.

“Some Evidence on the Nature of Relearning Curves.” With E. V. McIntyre. *The Accounting Review* (April 1992): 368–378.

“CIAs and CPAs: Do They Agree on Internal Accounting Controls?” *The Internal Auditor* (February 1990): 46–49.

“The Shortchange Artist: A Threat to Cash.” With Selaina Porter. *Internal Auditing* (Spring 1989): 54–59.

“Forgetting and the Learning Curve: A Laboratory Study.” *Management Science* (March 1989): 340–352.

“Avoiding Errors in Judgment.” *The Internal Auditor* (June 1986): 25–28.

“Improving Response Rates to Accounts Receivable Confirmations: An Experiment Using Four Techniques.” With Gene Ballard of Peat Marwick. *Auditing: A Journal of Practice and Theory* (Spring 1986): 77–85.

“An Attribution Analysis of Responsibility Assessment for Audit Performance.” With C. E. Arrington and W. S. Hopwood. *Journal of Accounting Research* (Spring 1985): 1–20.

**Publications  
(Continued)**

“Removing the Computational Burden from Reciprocal Cost Allocations.” With Gordon Harwood and William S. Hopwood. *Journal of Accounting Education* (Fall 1984): 169–174.

“Does Skill at Commercial Lending Improve with Experience?” *The Journal of Commercial Bank Lending* (March 1984): 38–45.

“Internal Control Evaluation: State of the Art.” *The Woman CPA* (July 1983): 25–28.