1990

Computer literacy in master of public administration classes

Penni Kaye Overstreet

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COMPUTER LITERACY IN MASTER OF PUBLIC ADMINISTRATION CLASSES

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master
of
Public Administration

by
Penni Kaye Overstreet
June 1990
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A Project
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Approved by:

Dr. Naomi Caiden, Chair, Public Administration Date: Dec. 12, 1990

Dr. Clifford O. Young

Dr. James Brian Watts
ABSTRACT

The purpose of this research project was to develop a literary base of computer software for use in teaching Public Administration. The primary method was library research and hands-on examinations of computer software. The end result was to be integration of computers in the Masters of Public Administration (MPA) courses at California State University, San Bernardino.

This project provided the framework for MPA students to become computer literate. The methodology involved identifying MPA classes that could incorporate the use of computer software. Next, numerous software programs were researched which lead to a review of two integrated packages, Framework III and Microsoft Works. The analysis of Right Writer for the IBM/PC and Macintosh provided a comparison of the software package.

Due to the vast number of software programs that could be incorporated into the MPA courses, only a few programs were reviewed. The small scale enabled the project to be a manageable size. The project provided the framework necessary to enable MPA students to become computer literate.
ACKNOWLEDGEMENTS

I wish to give special acknowledgment to Dr. Clifford O. Young, whose guidance, support, and assistance was invaluable. I would also like to thank Dr. J. Brian Watts for his time and comments toward this project. Special thanks to Chani Beeman for her assistance and cooperation. Lastly, I would like to give special recognition to my family. Their support and guidance provided me with the opportunity to obtain my second Masters.
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PA 563
PA 611
MGMT 603
PA 307
PA 680
PA 615
PA 672
PA 562
PA 564

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BACKGROUND INFORMATION

NEED FOR COMPUTERS

The need for computers is omnipresent in society. The use of computers in education, business, and personal use has become a normal part of life. Computers are no longer perceived as unobtainable technological machines, but can now be purchased at reasonable prices. The ease in which computers are obtainable has contributed to the phenomenal growth of the computer industry.

The reasonable availability of computers requires that users become computer literate. Computer literate is defined as "an understanding of what a computer can and cannot do, and an ability to make the computer do what is desired (McKeown 1988, p.6). In today's technological age individuals naive to computers are at a distinct disadvantage (even if it is used only for inputting of information). It is therefore imperative that students acquire the necessary computer skills in school.

CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO'S ROLE

In an attempt to make the Masters of Public Administration program at California State University, San
Bernardino (CSUSB) computer literate a course has been added (Public Administration-609f) to meet this demand. The course is entitled "Computers in Government: Theory and Practice" and was first offered in the Fall of 1989 by Dr. Clifford O. Young. There were nine students (of which I was one) enrolled in this pilot program. The fact that Master of Public Administration students must be computer literate is not arguable, however the means of achieving this end is debatable. The question has arose whether one course should meet this requirement or have all Master of Public Administration classes introducing aspects of computers. It is this second approach that is the main thrust of this project. Either way it is a committed goal to have all Master of Public Administration students computer literate upon graduation.

INTRODUCTION

The main objective of this paper was to compare IBM/PC and Macintosh software to find software that would be useful for Master of Public Administration students. In order to achieve this, it was necessary to do a number of preliminary steps.

IDENTIFICATION OF COURSES

The first step was to list all courses in the Master of Public Administration program and obtain syllabus' for each
course (see attachment A). Then a review of the syllabus's to determine what type of software could benefit the class was conducted. After this review, a matrix was developed to show the results, as seen in Table 1. In addition to the matrix, a brief look at each course reinforces the need for the specified software.

After determining the type of software that could be incorporated into the classes, a search for various software programs ensued. In order to cut down on the number of software to review, the search was limited to five types of software: (1) Wordprocessing, (2) Data Retrieval, (3) Statistical Packages, (4) Database Management, and (5) Spreadsheets. This endeavor produced numerous articles about software packages for both the IBM/PC and Macintosh computers (see attachment B). The primary sources I used to find the articles were in PC Magazine, PC World, and Mac World for 1989-90.

SOFTWARE REVIEW

In order to start a comparison of software, two programs were chosen from an integrated package. The two programs consisted of Framework III and Microsoft Works, both for the IBM/PC. The review of each software package can be seen in appendix C.

PAPER ON WORDPERFECT 5.0 AND WORD

The next step was to re-type a paper and run various
programs to analyze the paper. The paper was a "Research Process Paper" written by Dr. Clifford O. Young. The paper consisted of the methods used in writing a research paper. The paper was re-typed in a wordprocessing program, Wordperfect 5.0 for the IBM/PC (see attachment D) and Word for the Macintosh (see attachment E). As part of the wordprocessing stage the document was run through the programs spell-check and a Table of Contents was developed.

ANALYSIS OF DOCUMENT

The next step entailed analyzing the papers educational context. Right Writer's program for the IBM/PC and Macintosh. Right Writer is a program that analyzes your document "for possible problems with grammar, style, word usage, and punctuation" (Right Writer, p.1-2). Right Writer allows the user to define specific parameters in which you want your document analyzed. The writing style option allows you to choose among General Public, High School, or College in which to analyze your document. The type of writing you want can be picked from General Business, Technical Report/Article, Manual, Proposal or Fiction. There are also various Grammar, Style, Usage, and Punctuation rules in which the user may choose to be operative (see attachment F).

When running the IBM/PC version of Right Writer the first time the document was in the default mode. After consultation with Dr. Young, the document was ran a second time, however,
with the following specifications: College writing, Technical Report/Article type of writing, and all Grammar, Style, Usage, and Punctuation rules were to be ON. The second run produced results similar to the first run, therefore, the first analysis has been included instead of reprinting the document (see attachment G). Knowing the specifications wanted for the analysis, the same requirements for the Macintosh version of Right Writer was used (see attachment H).

METHODOLOGY

GUIDELINES FOR SOFTWARE

The methodology used in selecting what software to review was based on a number of characteristics. One of the most important aspects was to have an integrated software package which provides the user with various commonly used software in one package. The primary purpose of the software was to be used by novice computer users in the Masters of Public Administration program. Therefore, the software needed to be rather easy to understand ("user-friendly") and able to offer the student the most used software required for a graduate course. Based upon this criteria the integrated software packages of Framework III and Microsoft Works were reviewed for the IBM/PC. Had time and money permitted, reviews would have been done for the Macintosh as well as other integrated software.
SOFTWARE SELECTION

The integrated software programs of Framework III and Microsoft Works offer various programs. The most useful programs of Wordprocessing, Spreadsheets, Database, and Graphics are offered within both programs. Each package has its advantages and disadvantages, which are described in appendix C.

When doing a review of the software a database was used in which to categorize the information. The categories consisted of: software, company, type (PC or Mac), package, and source. This method allowed easy access to pertinent information for future research.

The Right Writer analysis software was chosen over other similar programs due to its versatility to have both IBM/PC and Macintosh versions and its overall performance for analysis. Having a program such as Right Writer that has versions for both the IBM/PC and Macintosh enables the analysis to be of a much more reliable comparison.

STEPS IN REFINING SELECTIONS

One of the aspirations of a project such as this is to be able to review as many software packages as possible. This would make it possible to compare software that would be a benefit to a student — in this case a Master of Public Administration student. The list of software packages in appendix B was the first step in such an endeavor. The second
step would be to choose which programs to review, based on the previously stated criteria. The third step would be to actually review the software, of course after contacting the appropriate manufacturer.

SUMMARY

IDENTIFYING NEEDS

Identifying, reviewing, comparing, and analyzing software is a rather arduous task, however, it is one of constant challenge. New programs are always surfacing as the cure for all your troubles. Weeding out the programs that will not benefit your needs has been the focus of this project. A brief look at various software programs will further explain what software is beneficial to the MPA program.

SIMCITY

SimCity is a simulation game in which the student can participate in fostering "a city's growth, respond to the citizens' and city's needs, balance a budget, and cope with natural disasters"(MacWorld, 11/89). The benefits to this type of simulation is far reaching in developing the Master of Public Administration student for "real-life" situations. However, one drawback is the essence of a game, not taking situations seriously. Another limitation is the limits of the company who conceived the program.
INTEGRATED PROGRAMS

Integrated software can be an advantage to most MPA classes in that various programs are combined into one for increased versatility. Numerous integrated software programs exist: Ability Plus, AlphaWorks, Microsoft Works, and Framework III. The most used programs for Master of Public Administration students would consist of a word processor, database, spreadsheet, and telecommunications. Some limitations include inadequate capabilities, the usefulness of the programs for the student, and the degree of complexity.

Although integrated packages offer word processing and spreadsheet programs, they are limited compared to software devoted to these two programs. Many Master of Public Administration classes require a higher degree of expertise that software devoted to the full potential of spreadsheets such as: Excell, Lotus 1-2-3, Quattro, and SuperCalc can provide the student.

WORD PROCESSING PACKAGES

By far the most used software that a Master of Public Administration student will use is a word processor. There are numerous programs that can aid the student in their endeavors. WordPerfect, Word, Works, and WordStar are just some of the word processing packages that are available.

STATISTICAL PACKAGES

Some classes that a Master of Public Administration
student is required to take involve the use of statistics. There are many statistical packages available that can be used to complement the classroom instruction. Public Administration 603, Research Methods in Administration, is a course that relies heavily on statistics, therefore, a statistical package such as: SPSS/PC+, Systat, or StatView can be extremely beneficial. Depending on the type and level of statistics that will be dealt with in the course is a big determinator of what software program to purchase.

DATABASES/GRAPHICS/ACCOUNTING

Some Master of Public Administration classes may require the use of a database program to complement an exercise. There are many programs to choose from with Microsoft File and Paradox as only two. Other programs that will be useful in MPA classes include graphic and accounting packages. Graphic software is most useful to show students a point with a visual image. Having an additional means to relate information to students can be of a great advantage. Accounting software will enhance classes dealing with budgets. Again, if students are able to participate in "hands-on", as well as theoretical learning, then the courses will enhance the students retention and application ability.

DATA RETRIEVAL

Another asset available to Master of Public Administration students is the use of Data Retrieval (On-Line)
software. Depending on the subject to be retrieved, there are various software services available for the students benefit. Although this software system is probably inconceivable to implement in the classroom teaching, the student (can on their own) obtain access to the services. There are numerous Data Retrieval services, however, some that may be most useful to MPA students include: Database of Databases, News/Retrieval World Report, Popular Magazine Review Online, and Eric. The availability of these services may be hindered due to the lack of funds or the lack of on-time usage.

ANALYZING USER NEEDS

Determining the packages useful for Master of Public Administration students, all the way to an actual analysis of a document, have been performed within this project. Determining the best software package for Master of Public Administration classes involves careful analysis. Various needs are to be considered, such as the educational level of the students, the level of computer competence, cost of software, and the course constraints. When reviewing software for a course, you need to be aware of these constraints as well as the constraints of the software.

STEPS USED TO COMPLETE PROJECT

Realizing that Master of Public Administration students must be knowledgeable about computers is one aspect in a broad array of factors to insure students are in fact computer
literate. Once this realization was established it was necessary to identify Master of Public Administration classes. Knowing what classes the graduate students were required to take enabled the next step to occur - review each class syllabus to find what needs could be meet via computers. Having identified what programs could be incorporated into the classes lead to the task of doing a literature research of the various software packages.

The next approach was to do some actual analysis of software. This endeavor resulted in a review of two wordprocessing packages - Framework III and Microsoft Works (both for IBM/PC). In another software analysis a document was analyzed by Right Writer. However this analysis was performed by an IBM/PC and a Macintosh. Having typed and analyzed the same document with the same software package (although for different computers) enables the user to accurately compare software packages.

IMPLEMENTATION PHASE

This project preformed an initial review in which to support the requirement that Master of Public Administration students be computer literate upon graduation. However the next phase, that of implementation, will require research of a different type. The implementation phase consist of logistics, such as how much will the software and hardware cost, who will train instructors on the software, and how much
should the course(s) depend on computers. These considerations are only a few, there are numerous others that must be viewed before implementation. The main goal is to insure Master of Public Administration students are computer literate, however the method used to obtain this goal must be based on solid principles.
### TABLE 1

**CLASS AND SOFTWARE MATRIX**

**SOFTWARE**

<table>
<thead>
<tr>
<th>CLASS</th>
<th>WP</th>
<th>SIM</th>
<th>SS</th>
<th>DB</th>
<th>ACCT</th>
<th>SIMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-563</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA-611</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGMT.603</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

WP = Word Processing  
SIM = Simulation  
SS = Spreadsheets  
DB = Data Base  
ACCT = Accounting  
STAT = Statistical
OVERVIEW OF COURSES

PA 563, Governmental Budgeting, addresses all levels of government in regards to the budget. Therefore, software such as Word Processing, Spreadsheets, and Accounting would be aided reinforcement in this graduate course.

PA 611, Theory and Practice, deals with the theory of public administration. Such a course would benefit from Word Processing and Simulation programs.

MGMT 603, Research Methods in Administration, deals with all aspects of research and how it relates to public administration. This course would benefit from Word Processing and Statistical software.

PA 307, Public Relations in the Public Sector, addresses problems and techniques of administration to properly manage and improve public relations. Work Processing and Simulation software would allow students to explore various aspects to improve relations in the public sector.

PA 680, Public Policy Analysis, deals with the analytical, behavioral, and systems sciences approaches to public administration systems. In this course software packages of Word Processing, Simulation, and Spreadsheets would provide students valuable information.

PA 615, Public Financial Management, relates to financial issues in public organizations, specifically at the local
government level. Word Processing, Spreadsheets, and Accounting software would aid to the course.

PA 672, Administrative Regulations, encompasses legislative, enforcement, interpretive, and adjudicatory laws. A Master of Public Administration student would benefit from Word Processing and Spreadsheet software in this course.

PA 562, Public Personnel Administration, deals with all aspects of personnel matters in the public arena. Software such as Word Processing, Spreadsheets, and DataBases would be useful in this course.

PA 564, Local and Public Administration is designed to enlighten students on the dynamics of issues faced by local and public organizations. It is therefore feasible that a number of software programs could enhance this course, such as: Word Processing, Spreadsheets, Databases, and Accounting.
APPENDIX A

MASTER OF PUBLIC ADMINISTRATION COURSE SYLLABI
SYLLABUS

COURSE OBJECTIVES

The aim of this course is to introduce participants to the state of the art in public budgeting. The course focuses on public organizations in the United States at all levels of government, but with particular emphasis on local jurisdictions. Where appropriate, comparisons will also be drawn with other countries.

The emphasis of the course is on integration of theory and practice. Class discussions will cover managerial, economic and political aspects of public budgeting and resource allocation, and their applications. In order to capture the "real world" of budgeting and to gain a deeper understanding of budget processes, part of the course will be built around a LOCAL GOVERNMENT BUDGET PROJECT, exploring local budget processes. No prior knowledge of public budgeting of financial management is assumed.

Participants are expected to:

achieve a grasp of major budget concepts and practices through course readings

gain familiarity with budget documents and information

understand recent developments affecting financial policy and administration

enhance oral and written communication skills through assignments and class participation
develop research capacity in the areas of public budgeting and resource allocation

COURSE ORGANIZATION

1. A series of readings set out in the class schedule. These form the basis for discussion and it is important that participants prepare for class sessions by careful preparation of the texts. It is anticipated that classes will be seminars reinforcing assimilation of concepts, debating their validity, and discussing their utility. Participants should expect to be called on to present concepts and theories from the reading, and to demonstrate their familiarity with them.

2. LOCAL GOVERNMENT BUDGET PROJECT. Each participant is asked to choose a local government agency and to complete a series of exercises on its budget. Instructions for this assignment, which will constitute a course paper, are appended, and will be discussed at the first class session.

3. GROUP PRESENTATIONS. Participants will be divided into groups, depending on class size, and will be assigned chapters of the major text to present to the class.

4. Two mid-term examinations.

ASSIGNMENTS AND GRADING

Grading of written work will be based on organization of the essay or paper, the relevance and accuracy of its substantive content, and clarity and style of presentation. Grading of oral work will be based on the individual's effective grasp and communication of concepts and ideas, successful eliciting of interest and discussion among class participants, and professionalism in presentation.

Grades will be distributed as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Due Date</th>
<th>Percentage of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Budget Project</td>
<td></td>
<td>40%</td>
</tr>
<tr>
<td>I</td>
<td>January 23</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>February 6</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>February 20</td>
<td></td>
</tr>
<tr>
<td>IV &amp; V</td>
<td>March 13</td>
<td></td>
</tr>
<tr>
<td>Group Presentations</td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>Mid-term examinations</td>
<td></td>
<td>40%</td>
</tr>
<tr>
<td>Class participation</td>
<td></td>
<td>10%</td>
</tr>
</tbody>
</table>

CLASS TEXTS AND READINGS
The following texts have been ordered for the class and are available at the University Bookstore:


Other assigned readings will be distributed.

OFFICE HOURS

Office hours will be held one hour before the class by appointment, or by appointment at the Administration Building, Room 138. Appointments may be made by calling 714-880-5758.
COURSE SYLLABUS

COURSE DESCRIPTION

A critical analysis of major theories of public administration and their application, including development of the discipline, evolution of institutional forms, concepts of decision making, and dominant metaphors which provide images for reading and understanding public organizations. This is the basic course in the MPA curriculum. As such, it introduces and reinforces key issues and concepts.

COURSE GOALS

1. Keep you awake.
2. Identify and discuss the scope of PA, including development of the discipline, its structure and functions, and the politics/administration dichotomy.
3. Identify and discuss similarities and differences between public and private management.
4. Explain scientific theory and the diversity of theoretical perspectives on public administration. Illustrate the practical application of PA theories to real-world public management.
5. Demonstrate how most conventional ideas about organization and management build on a few taken-for-granted images or metaphors, especially mechanical ("machine"), biological ("system"), and political ones.
6. Explicate critical counter-theories of organization, including neo-Marxism and public choice, and identify alternative approaches to pressing governmental management concerns.
7. Discuss various types of public/private partnerships and ethics in public administration.
COURSE REQUIREMENTS

1. Three (3) short written papers. Paper topics will be assigned based upon classroom material and the readings as illustrated in the Course Outline. Each paper will be 5 pages long, exclusive of references. Papers will be scored on grammar, punctuation, and style as well as content. They must be appropriately referenced with assigned and outside readings. Improperly referenced papers will not be accepted. For proper reference style, consult Kate Turabian, A Manual for Writers of Term Papers, 5th ed., Chicago: University of Chicago Press, 1987, or the references in Gortner, et al.

2. Each week two students will present a 10-minute oral report on one theory applied to an actual public administration case. The report will describe the theory and illustrate how it explains/sheds light upon administration.

GRADING

Short Papers............................300.@ 100 points each
Oral Reports............................50

350 points total
Final course grades will be assigned on the basis of percentage earned of total possible points.

REQUIRED TEXTS

The following books must be purchased:


COURSE DESCRIPTION

Principles of research design, development of research instruments, data accumulation and analysis of significant data. Critique of sample research studies from the literature and a research study conducted by the student.

COURSE OBJECTIVES

The purpose of this course is two fold; first, to introduce students to various social science research methodologies, to assess their utilities in generating accurate and useful information for management decision making, and to complete a research design to facilitate practical understanding of the research process. Second, to understand the role of a consumer of research reports by analyzing the research efforts of fellow students.

At the completion of this course, the student is expected to show competence in discussing, identifying, and applying the following:

1. The different methods used to conduct research
2. Scientific paradigms and how they affect the way in which social science research is carried out
3. Ethical issues raised by social research
4. Stages of a research proposal
5. How to operationalize definitions by selecting indicators, and determining dimensions
6. The meaning of measurement as it applies to social-scientific concepts
7. The purpose of validity testing and its different forms
8. The meaning and types of reliability testing
9. Interpret the mean, variance, and standard deviation

22
10. The various types of probability and nonprobability sample design
11. The different forms of administering surveys and the ability to design and apply them to appropriate situations
12. The creative and scientific aspects of analyzing data
13. Define evaluation research
14. Be familiar with computer hardware and software terminology
15. The difference between indexes and scales as complex measures
16. Design and critique a research project.

COURSE ORGANIZATION

The objective of this course will be met through the combined efforts of three approaches:

1) Introduction to the basic methods of social science research. The course outline sets out a series of reading assignments and exercises designed to give the class participants a common background for discussion and application. The class will be conducted as a seminar and workshop. Specifically, this means that students will be encouraged to actively participate in class discussions. Lectures are primarily concerned with introducing materials not covered in the assigned readings.

2) Application of research methods. The methods discussed in the readings will be applied through exercises in class. Participants will be required to maintain a notebook of class exercises and be prepared to share essential materials contained in the assignments with other members of the class. As a part of this, each class member will be expected to give a written as well as an oral critique of a fellow class members research design.

3) Development of a research design. Each participant is expected to design a research project dealing with a problem of current public interest. Although the problem may reflect ones own special interests, students must receive approval from the instructor prior to beginning work on a project. (Topics of special interest to the instructor will be discussed during the first meeting of class). As part of this exercise, students will make a written and oral presentation in class.

TEXTBOOKS

Required
The following texts have been ordered through the University Bookstore:


**GRADING AND EVALUATION**

In addition to the research design, class exercises and research critique, mastery of course concepts and methods will be demonstrated through two examinations: a mid-term (covering materials presented in weeks #1-#5) will be given on February 7, a final (covering materials presented in weeks #6-#10) will be given on March 21.

Written assignments will be evaluated on the basis of relevance, content, style, grammar, accuracy of material presented, clarity and overall organization of the report. (The Style Manual for Writers, by Turabian, or the APA style is recommended). Evaluation of oral presentations will be based upon the degree to which concepts have been effectively and professionally communicated. Class discussion should be stimulating.

Overall performance will be evaluated as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>In class exercises</td>
<td>15%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>15%</td>
</tr>
<tr>
<td>Research Design (written &amp; oral)</td>
<td>25%</td>
</tr>
<tr>
<td>Research Critique (written &amp; oral)</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>15%</td>
</tr>
<tr>
<td>Class Participation</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Grading Scale**

- 100% - 95% = A
- 94% - 90% = A-
- 89% - 87% = B+
- 86% - 83% = B
- 82% - 80% = B-
- 79% - 77% = C+
- 76% - 73% = C
- 72% - 70% = C-
- 69% - 60% = D
- Below 59% = Fail
PA 307  
Public Relations in the Public Sector  
Fall Quarter, 1988  
MW 1600-1750  
TC 003B  

Dr. Chuck Christie  
Office: AD-172  
Office Hours: MW 1600-1750 & by appt.  
Office Phone: 880-5760  
Message Phone: 880-5758  

SYLLABUS

COURSE DESCRIPTION

Public relations as an inherent aspect of management in the public sector. Problems and techniques of administration of programs to manage and improve public relations.

COURSE OBJECTIVES

A) This course is designed to familiarize you with the issues and tools of public relations in the public sector. Topical coverage will include the administrative, ethical, legal, and political considerations of public relations in government.

B) In addition to the above substantive objectives, you will be expected to demonstrate reasonable written and oral communications skills -- one of the unwritten assumptions assigned to a college graduate is the s/he will have acquired reasonably sophisticated communication and analytical skills.

COURSE REQUIREMENTS

1. Active and knowledgeable class participation.
2. Peer group evaluation
3. Mid-term examination
4. Public Relations Project (at least ten pages in length; more details will be provided examination date comprehensive)

FIVE FOR FOUR

It is the policy of California State University, San Bernardino to offer five quarter units credit for courses
which meet only four hours each week. It is expected that
students will earn this unit by work performed outside the
classroom. Your public relations project has primarily been
designed to warrant your fifth unit of credit.

GRADING

1. Class participation 15%
2. Mid-term examination 15%
3. Public Relations Project 35%
4. Final examination 35%

CLASS PARTICIPATION

The class participation grade will be based on the following
formula:

1. Peer group evaluation 1/3
2. Instructor evaluation 1/3
3. Attendance 1/3

The major criterion for evaluating your class participation
(for both instructor and peer group evaluation) will be your
contribution to classroom learning as evidenced by classroom
discussion, presentation of relevant class discussion, etc.

Quantity of class discussion is important, but quality of
discussion will be most important. Substance will generally
carry the most weight, but important weight will also be given
to those who facilitate productive class participation and
discussion.

Attendance will also be a factor in evaluation of your class
participation and will be based on the following scale:

<table>
<thead>
<tr>
<th>Absences</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
</tr>
<tr>
<td>4</td>
<td>C</td>
</tr>
<tr>
<td>6</td>
<td>D</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
</tr>
</tbody>
</table>

Students missing the stated number of classes will
automatically receive the above corresponding grade for
attendance, i.e., for five (5) percent of their course grade.


**CLASS POLICIES**

1. The assignments should have been read and you should be ready to discuss them on the scheduled dates. Because of the broad scope of subject matter to be covered during the quarter, it is imperative that you stay current in the reading assignments. This will not only make the lectures and class discussions more meaningful, but it will help you avoid becoming "bogged down" by the material.

2. You are held responsible for contacting me concerning missed class sessions, and any lectures, handouts, modified assignments, etc., that may have occurred during your absence.

3. Students missing an examination will normally receive an "F" for that part of their course grade.
COURSE DESCRIPTION

An integrative course examining the analytical, behavioral and systems sciences approaches to public administration systems with emphasis upon the development of evaluative skills in applied decision making.

COURSE OBJECTIVES

This course is designed to introduce participants to the subfields of public administration which focus on public policy making, policy analysis and policy implementation. During the course participants should expect to:

- describe, compare and evaluate the principal ideas about the planning and administration of public policies;
- integrate the ideas and personal capabilities gained in other courses;
- evaluate situations, generate alternative solutions, and recommend specific programs;
- develop professional analytical and writing skills;
- communicate ideas about public policy planning and administration in language and graphics understandable to public officials.

COURSE ORGANIZATION

The course is organized in three parts.
1. A general overview of the elements of policy analysis, and policy implementation. This part of the class consists of discussion of the general principles set out in the course text and other assigned readings.

2. An original case study on a topic of the participant's choice. Participants should choose a topic early in the course, and will develop the paper along formalized lines during the course. Participants will discuss their papers throughout the course in relation to the theory of policy analysis, and will hand in written reports, as set out in the class schedule.

3. Discussion and critique of other students class papers.

COURSE TEXTS


ASSIGNMENTS

The course is built around three sets of assignments, as follows:

1. Preparation of reading according to the plan set out in the course schedule. It is essential that participants have a clear understanding of theory covered in the selected readings so that the class can take the form of a discussion rather than a lecture.

2. A series of assigned papers written by class members. The class will be divided into small groups, depending on class size, and each group will have responsibility for presenting the topic of the paper assigned to it.

3. An original analytical case study to be researched, written and presented by each participant. This assignment is to be undertaken throughout the course. The stages of analysis will be aligned with the theoretical discussion drawn from the class text, and participants will be called upon to use their work as examples of theoretical points.

The paper will be split into a series of short assignments, which you should be prepared to present to the class in a professional manner for discussion, and
which will be handed in and commented on by the instructor. There will be no formal grading of these sub-assignments, but they will be integrated into a final paper due at the end of the course. The sub-assignments are as follows:

1. PROBLEM STATEMENT. Your first assignment is to write out a problem statement which should explain the problem you have chosen to research. You should consult the handout "guideline for preparing policy issue papers and a checklist for preparing policy issue papers" to help you in carrying out the assignment. Length: one to two pages.

2. OBJECTIVES AND EFFECTIVENESS. For this paper you need to specify what the goals of policy are to be, and how you will measure the effectiveness of the policy suggestions you will make. You should ensure that you display your analysis in the most effective way possible, and also justify your choice of goals. Length: three to five pages.

3. ALTERNATIVES AND THEIR COSTS. At this stage you should screen as many alternative policy possibilities as possible, and then specify the ones you will analyze in depth. You should also assess the costs for each of these alternatives, remembering to include all costs, and to make your assumptions clear. Length: three to five pages.

4. MODEL. This may be hard to believe but every policy study requires a MODEL, which is the theoretical link between the policy you propose and the consequence you hope will follow. Models do not have to be quantitative or elaborate, but the linkage they represent needs to be explicit. There is no page length limitation.

5. ANALYSIS OF CRITERIA: BALANCING COSTS AND EFFECTIVENESS. Here you bring the analysis together to make recommendations, rank alternatives, or simply present the information you have gathered in a systematic way. Length: three to five pages.

6. IMPLEMENTATION DESIGN. Policy analysis is only one part of the story. How can you be sure your preferred policy will work? You need a conscious strategy for IMPLEMENTATION which will give some ideas of the participants, institutions, processes and timeline involved. Length: three to five pages.
FINAL PAPER. DUE FINAL EXAMINATION SESSION. The final paper should incorporate the preceding elements, and the suggestions and comments I have made during the course. Your aim at this stage is to show that you have understood the elements and issues of policy analysis and how to apply them.

GRADING

Grades will not be assigned to the sub-assignments that you will be handing in during the course, but detailed comments will be made on your work. It is essential that theses assignments are handed in on time, so that you will receive feedback as soon as possible.

Grades will be assigned as follows:

1. Assigned papers report 20%
2. Final course paper 70%
3. Class participation 10%

Grades on written work will be based on relevance and content, organization, and style of writing.
COURSE DESCRIPTION

Management of financial resources in public organizations with emphasis on local government. Topics include evaluation and monitoring of financial condition and trends, fiscal policy analysis, revenue and expenditure forecasting, capital planning and financing, cash flow management, debt administration, cost allocation and integrated financial management systems.

COURSE OBJECTIVES

The primary aim of this course is to familiarize participants with the state of the art in public financial management and to provide practical "hands-on" exercises to illustrate principles and give some practice in applying concepts.

COURSE ORGANIZATION

The course is built around three main elements.

(1) A series of readings for discussion
(2) A series of case studies to be carried out individually and in groups
(3) A practical research project to be undertaken in conjunction with a local government agency

COURSE TEXTS

The following texts have been ordered by the University Bookstore.


ASSIGNMENTS

(1) Two individual written projects due April 15 and April 29 respectively. Further instructions will be given in class.

(2) Participation in one or more group case studies, taken from the text by Lewis and Walker, and listed in the class syllabus. Size of groups and number of cases presented are dependent on class size.

(3) A term paper which relates any of the class topics to information obtained from a governmental or not-for-profit agency. You are receiving five units of credit for four class hours, and this term paper constitutes the fifth credit unit.

(4) There will be mid-term and final examinations.

GRADING

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual projects</td>
<td>10%</td>
</tr>
<tr>
<td>Group presentations</td>
<td>30%</td>
</tr>
<tr>
<td>Mid-term examination</td>
<td>10%</td>
</tr>
<tr>
<td>Final examination</td>
<td>10%</td>
</tr>
<tr>
<td>Term paper</td>
<td>30%</td>
</tr>
<tr>
<td>Class participation</td>
<td>10%</td>
</tr>
</tbody>
</table>

Please note that the LAST DAY TO DROP without documentation is Census Date or the end of the third week of classes. REFUNDS can only be obtained 14 Calendar Days after classes begin.
INTRODUCTION

Kenneth Culp Davis defines administrative law as the body of law concerned with "the powers and procedures of administrative agencies." Administrative powers are generally grouped into four categories: legislative (power to make rules), interpretive (power to interpret legislation), enforcement (power to execute the law), and adjudicatory (power to resolve conflicts about the meaning or application of the law). Upon completion of this course, you should be able to (1) recognize and define each one of the four groups of powers, (2) distinguish among the four (harder than it appears), (3) explain how each power is exercised, (4) delineate how each power is limited by constitutional and statutory law, and (5) discuss the basics of political and judicial oversight of administrative power.

We shall be interested primarily in how administrative law shapes the process of agency decision making. More particularly, we shall consider the ways in which administrative law regulates how agencies exercise their rulemaking, interpretive, executory, and adjudicatory powers. Our objectives are to understand how law (1) determines which classes of people are entitled to a hearing, (2) defines the scope of hearing rights in different circumstances, (3) regulates the rulemaking process, (4) places restrictions on the execution of law, and (5) regulates political and judicial oversight of agencies.

I do not expect any of you to become experts in administrative law. My expectation, rather, is that your effectiveness as a public administrator will increase in proportion to the
insights you gain into administrative law.

Caution: Law changes daily. For this reason, you must not assume that specific rules of law learned in this course will endure unchanged. Don't "shoot from the hip." When in doubt, seek the advice of your agency's legal counsel.

TEXT


METHOD

We will spend most of our class time examining specific cases in administrative law (the cases are enumerated below). I will assign cases a week in advance, and will ask you questions about them on their scheduled date. We will then try to put together a coherent set of principles for each topic covered.

Effective case preparation requires that you follow these steps:

1. Identify the critical core set of facts. (Ask yourself, "What facts really mattered to the court's decision?")

2. What legal issues are presented in the case? (e.g., "This case presents the issue of whether a government, job is property protected by the due process clause of the Fifth or Fourteenth Amendments to the U.S. Constitution.")

3. For each legal issue, what arguments were presented by the competing sides? Did either side rely on existing precedent? If so, what did the cited precedent hold?

4. How did the court rule? Did the court rely on existing precedent? How did it apply that precedent? Why do you think it ruled in the manner it did? (I am looking here for legal and extra-legal reasons.)

5. Now, how would you describe the current status of the law?

Be prepared to apply the resulting rule of law to various hypothetical sets of facts.
GRADES

Mid-term examination (45 percent). Your mid-term exam will be open-book (notes and text) and will consist of four multiple issue essay questions. You will be asked to answer three out of four questions. I will return them to you with a grade and extensive comments about each answer. You will then be given the opportunity to revise your answers and resubmit them to me the following week. I will award an additional one point to your grade for each additional two full points you earn. You may earn a maximum of ten additional points in this manner. The revisions must be entirely your own work; you may not seek or obtain assistance of other persons. (But you may consult freely your notes and text.)

Final examination (45 percent). The final exam will be in a format similar to your mid-term. I will distribute it at the last regularly scheduled class session and will require that it be submitted to me during the regularly scheduled exam period. You may use your notes and text freely to answer the questions. You may not seek or obtain the help of other persons.

Recitation (10 percent). I will assign cases to students one week in advance. You will then be asked a series of questions about the case. I will assign a grade for each recitation.

ATTENDANCE

I take roll each class. I may adjust the class grade curve based on your attendance.

VISITATION

I strongly urge you to discuss this course with me outside of class. To accomplish this, I will make myself available immediately before and after each class. In addition, I will be glad to schedule meetings outside of my regularly scheduled office hours, and will schedule a special weekend or night session immediately before the mid-term. Call me at home if you feel the need, but please do so before 8:00 p.m.
PROPOSED SYLLABUS

COURSE DESCRIPTION

Definition, description and evaluation of government personnel systems; classification, compensation, recruitment, examination, training, working condition, incentives, performance rating, public employee organizations, and organizational development in the public service.

PREREQUISITE: MGMT 302 OR PSYCHOLOGY 302.

COURSE OBJECTIVES

The primary objective of this course is to familiarize you with personnel administration as practiced by our local, state, and federal governments. As a means of demonstrating familiarity with this subject matter, you will be expected to be able to identify, describe, and evaluate: The nature of public personnel administration, its major functional areas (sub-fields), landmark court cases and laws affecting public personnel, and the major problems and issues confronting modern public personnel administration.

In addition to the above substantive objectives, you will be expected to demonstrate reasonable written and oral communication skills -- one of the unwritten assumptions assigned to a university graduate is that s/he will have acquired reasonably sophisticated communication and analytical skills.

COURSE REQUIREMENTS

- Active and knowledgeable class participation
- Mid-term examination
- Peer group evaluation
"FIVE FOR FOUR"

It is the policy of California State University, San Bernardino, to offer five quarter units credit for courses which meet only four hours each week. It is expected that students will earn this extra unit by work performed outside the classroom. Your research assignment is primarily required to warrant your fifth unit of credit.

GRADING

-Mid-term Examination 15%
-Class Participation 15%
-Final Examination 40%
-Research Paper 30%

CLASS PARTICIPATION

The class participation grade will be based on the following formula:

1. Peer group evaluation - 1/3
2. Instructor evaluation - 1/3
3. Attendance - 1/3

The major criterion for evaluating your class participation (for both instructor and peer group evaluation) will be your contribution to classroom learning as evidenced by classroom discussion, presentation of relevant additional information or experiences, and serving as a catalyst for stimulating relevant class discussions, etc.

Quantity of class discussion is important but quality of discussion will be most important. Substance will generally carry the most weight, but important weight will also be given to those who facilitate productive class participation and discussion.

Attendance will also be a factor in evaluation of your class participation and will be based on the following scale:

<table>
<thead>
<tr>
<th>Absences</th>
<th>Grade</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>A</td>
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<td>4</td>
<td>C</td>
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<tr>
<td>6</td>
<td>D</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
</tr>
</tbody>
</table>
Students missing the stated number of classes will automatically receive the above corresponding grade for attendance, i.e., for five (5) percent of their course grade.

REQUIRED TEXTS

COURSE SYLLABUS

I. REQUIRED BOOKS

The following three books must be purchased:


II. COURSE DESCRIPTION

Administrative theories, characteristics, and problems of public management in urban areas, including city, county, and special district governmental organization and functions. Interrelationships between local public administration and political and economic processes.

III. COURSE GOALS

Keep you awake.

Improve oral and written communications skills in a dynamic academic atmosphere.
Review and examine the scope, forms, functions, politics, and environment of local public administration.

Understand the dynamics of local public policymaking and the administration of adopted policies in the context of competing theories of urban political economy.

Identify and examine major issues and problems confronting local public administration, emphasizing the "Inland Empire."

Explore and examine effective and efficient techniques of local public service delivery and program evaluation.

Review and examine practices and principles of local public management, including human resources, team management, financial administration, and quantitative techniques.

Delineate current and future trends and theories in local public administration.

Utilize actual cases to illustrate the above.

IV. COURSE REQUIREMENTS

1. Active and knowledgeable classroom oral participation.

2. Group case study project presented orally in class (see Group Case Study Project hand-out for details). Peer and instructor evaluation of group case study projects.

3. Two (2) short papers (maximum three pages in length) on topics assigned by the instructor, with appropriate references and bibliography. (Use Turabian, A Manual for Writers of Term Papers, Theses and Dissertations, for proper style.)

4. Take-home final examination due night of final exam.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Case Study Project</td>
<td>100</td>
</tr>
<tr>
<td>Two short papers at 100 points</td>
<td>200</td>
</tr>
<tr>
<td>Take-Home Final</td>
<td>100</td>
</tr>
<tr>
<td>TOTAL</td>
<td>400</td>
</tr>
</tbody>
</table>

Final course grades will be assigned on the basis of total points earned as percentage of total points available.
APPENDIX B

SOFTWARE PACKAGES
FOR
IBM/PC AND MACINTOSH
Software: Statistical Navigator, v.1.0
Company: The Idea Works Inc.
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.97

Software: The BASS System, v.88.10
Company: BASS Institute Inc.
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.121

Company: BMDP Statistical Software
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.122

Software: CSS, v.2.1
Company: StatSoft Inc.
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.123

Software: NCSS, v.5.01
Company: NCSS Inc.
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.124

Software: Prodas
Company: Conceptual Software Inc.
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.125

Software: P-Stat, v.2.10
Company: P-Stat Inc.
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.130
Software: RS/1, v. 12.1
Company: BBN Software Products Corp.
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.136

Software: SAS, v.6.03
Company: SAS Institute
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.136

Software: Sigstat
Company: Significant Statistics
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.138

Software: DBMS/Copy, v.1.2
Company: Conceptual Software Inc.
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.142

Software: SPSS/PC+, v.3.0
Company: SPSS Inc.
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.145

Software: Stata, v.2.0
Company: Computing Resource Center
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.146

Software: Statgraphics, v.3.0
Company: STSC Inc.
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.148

Software: StatPac Gold, v.3.0
Company: Walonick Associates Inc.
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.155
Software: Systat v.4.0
Company: Systat Inc.
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.156

Software: Turbo Spring-Stat, v.2.9
Company: Spring System
Type: PC
Package: Statistical
Source: PC Magazine, 3/14/89, p.159

Software: StatView 512+
Company: BrainPower
Type: Apple
Package: Statistical
Source: MacWorld, 4/89, p.138

Software: Exstatix 1.01
Company: Select Micro Systems
Type: Apple
Package: Statistical
Source: MacWorld, 4/89, p.138

Software: Data Desk Professional 2.0
Company: Odesta
Type: Apple
Package: Statistical
Source: MacWorld, 4/89, p.141

Software: StatView SE+Graphics/StatView II
Company: Abacus Concepts
Type: Apple
Package: Statistical
Source: MacWorld, 4/89, p.141

Software: Systat 3.2
Company: Systat Inc.
Type: Apple
Package: Statistical
Source: MacWorld, 4/89, p.143

Software: Chipendale
Company: True BASIC
Type: Apple
Package: Statistical
Source: MacWorld, 4/89, p.142
Software: CLRANOVA  
Company: D2 Software  
Type: Apple  
Package: Statistical  
Source: MacWorld, 4/89, p.142

Software: MacSpin 2.0  
Company: D2 Software  
Type: Apple  
Package: Statistical  
Source: MacWorld, 4/89, p.142

Software: MacSS  
Company: StatSoft  
Type: Apple  
Package: Statistical  
Source: MacWorld, 4/89, p.142

Software: Monte Carlo Simulations  
Company: Actuarial Micro Software  
Type: Apple  
Package: Statistical  
Source: MacWorld, 4/89, p.142

Software: RATS  
Company: VAR Econometrics  
Type: Apple  
Package: Statistical  
Source: MacWorld, 4/89, p.142

Software: StatCalc  
Company: Clear Lake Research  
Type: Apple  
Package: Statistical  
Source: MacWorld, 4/89, p.142

Software: Statistics for Excel  
Company: Heizer Software  
Type: Apple  
Package: Statistical  
Source: MacWorld, 4/89, p.142

Software: Statistics Modules  
Company: Lionheart Press  
Type: Apple  
Package: Statistical  
Source: MacWorld, 4/89, p.142
Software: TrueSTAT
Company: True BASIC
Type: Apple
Package: Statistical
Source: MacWorld, 4/89, p.142

Software: FASTAT 1.0
Company: Systat Inc.
Type: Apple
Package: Statistical
Source: MacWorld, 8/89, p.185

Software: Microsoft Works
Company: Microsoft Corp.
Type: PC
Package: Word Processing
Source: PC Magazine, 11/26/89, p.48

Software: AlphaWorks, v.2.0
Company: Alpha Software Corp.
Type: PC
Package: Word Processing
Source: PC Magazine, 12/26/89, p.149

Software: Better Working Eight-in-One, v.2.0
Company: Spinnaker Software Corp.
Type: PC
Package: Word Processing
Source: PC Magazine, 12/26/89, p.150

Software: DeskMate, v.3.3.1
Company: Tandy Corp.
Type: PC
Package: Word Processing
Source: PC Magazine, 12/26/89, p.153

Software: Q&A, v.3.0
Company: Symantec Corp.
Type: PC
Package: Word Processing
Source: PC Magazine, 12/26/89, p.163

Software: Microsoft Works 2.0
Company: Microsoft Corp.
Type: PC
Package: Word Processing
Source: PC Magazine, 12/26/89, p.168
Software: WordPerfect Executive, v.1.0  
Company: WordPerfect Corp.  
Type: PC  
Package: Word Processing  
Source: PC Magazine, 12/26/89, p.171

Software: PFS: First Choice, v.3.02  
Company: Software Publishing Corp.  
Type: PC  
Package: Word Processing  
Source: PC Magazine, 12/26/89, p.172

Software: PRO Staff, v.1.0  
Company: ShareData Inc.  
Type: PC  
Package: Word Processing  
Source: PC Magazine, 12/26/89, p.179

Software: Volkswriter 4  
Company: Lifetree Software Inc.  
Type: PC  
Package: Word Processing  
Source: MacWorld, 5/30/89, p.38

Software: Microsoft Write 1.0  
Company: Microsoft  
Type: Apple  
Package: Word Processing  
Source: MacWorld, 12/89, p.184

Software: MacWrite II 1.0  
Company: Claris  
Type: Apple  
Package: Word Processing  
Source: MacWorld, 9/89, p.184

Software: WriteNow 2.0  
Company: T/Maker  
Type: Apple  
Package: Word Processing  
Source: MacWorld, 9/89, p.184

Software: MindWrite 2.1  
Company: DeltaPoint  
Type: BOTH  
Package: Word Processing  
Source: MacWorld, 9/89, p.184
Software: Microsoft Word 4.0  
Company: Microsoft  
Type: Apple  
Package: Word Processing  
Source: MacWorld, 9/89, p.184

Software: FullWrite Professional 1.0  
Company: Ashton-Tate  
Type: Apple  
Package: Word Processing  
Source: MacWorld, 9/89, p.184

Software: Nisus 1.0  
Company: Paragon Concepts  
Type: Apple  
Package: Word Processing  
Source: MacWorld, 9/89, p.185

Software: MiniWriter  
Company: Maitreya Design  
Type: Apple  
Package: Word Processing  
Source: MacWorld, 9/89, p.183

Software: ExpressWrite  
Company: Exodus Software  
Type: Apple  
Package: Word Processing  
Source: MacWorld, 9/89, p.183

Software: QuickLetter  
Company: Working Software  
Type: Apple  
Package: Word Processing  
Source: MacWorld, 9/89, p.183

Software: SoftPC 1.3  
Company: Insignia Solutions  
Type: BOTH  
Package: Word Processing  
Source: MacWorld, 9/89, p.233

Software: MultiMate Advantage II, v.1.0  
Company: Ashton-Tate Corp.  
Type: PC  
Package: Word Processing  
Source: Datapro Research, 11/89, p.CM43-000-503
Software: Sprint
Company: Borland International Corp.
Type: PC
Package: Word Processing
Source: Datapro Research, 11/89, p.CM43-000-503

Software: DisplayWrite 5/2
Company: IBM Corp.
Type: PC
Package: Word Processing
Source: Datapro Research, 11/89, p.CM43-000-503

Software: Manuscript, Release 2.0
Company: Lotus Development Corp.
Type: PC
Package: Word Processing
Source: Datapro Research, 11/89, p.CM43-000-503

Software: Microsoft Word 5.0
Company: Microsoft Corp.
Type: PC
Package: Word Processing
Source: Datapro Research, 11/89, p.CM43-000-503

Software: Ami
Company: Samna Corp.
Type: PC
Package: Word Processing
Source: Datapro Research, 11/89, p.CM43-000-503

Software: Samna Plus IV 2.0
Company: Samna Corp.
Type: PC
Package: Word Processing
Source: Datapro Research, 11/89, p.CM43-000-504

Software: WordPerfect 5.0
Company: WordPerfect Corp.
Type: PC
Package: Word Processing
Source: Datapro Research, 11/89, p.CM43-000-504

Software: WordStar Professional, v.5.5
Company: WordStar International
Type: PC
Package: Word Processing
Source: Datapro Research, 11/89, p.CM43-000-504
Software: XyWrite III Plus  
Company: XyQuest, Inc.  
Type: PC  
Package: Word Processing  
Source: Datapro Research, 11/89, p.CM43-000-504

Software: Paradox OS/2  
Company: Borland International  
Type: PC  
Package: DataBase Management  
Source: PC Magazine, 6/13/89, p.119

Software: SQL Server  
Company: Ashton-Tate  
Type: PC  
Package: DataBase Management  
Source: PC World, 4/89, p.59

Software: R:BASE for OS/2, v.2.1  
Company: Microrim Inc.  
Type: PC  
Package: DataBase Management  
Source: PC Magazine, 6/13/89, p.128

Software: 4th Dimension 2.0.6  
Company: Acius  
Type: Apple  
Package: DataBase Management  
Source: MacWorld, 3/90, p.177

Software: Double Helix 3.0  
Company: Odesta Corporation  
Type: Apple  
Package: DataBase Management  
Source: MacWorld, 3/90, p.200

Software: Oracle for the Macintosh 1.0  
Company: Oracle Corporation  
Type: Apple  
Package: DataBase Management  
Source: MacWorld, 9/89, p.244

Software: Microsoft File 2.0  
Company: Microsoft Corporation  
Type: Apple  
Package: DataBase Management  
Source: MacWorld, 4/89, p.154
Software:  Lucid 3-D, v.2.0  
Company:  Dac Software Inc.  
Type:  PC  
Package:  Spreadsheet  
Source:  PC Magazine, 5/30/89, p.33

Software:  Lotus 1-2-3, Release 2.2  
Company:  Lotus Development Corp.  
Type:  PC  
Package:  Spreadsheet  
Source:  PC Magazine, 9/26/89, p.36

Software:  SuperCalc 5  
Company:  Computer Associates International Inc.  
Type:  PC  
Package:  Spreadsheet  
Source:  PC Magazine, 4/11/89, p.35

Software:  Allways  
Company:  Funk Software Inc.  
Type:  PC  
Package:  Spreadsheet  
Source:  PC World, 4/89, p.130

Software:  PlanPerfect 5.0  
Company:  WordPerfect Corp.  
Type:  PC  
Package:  Spreadsheet  
Source:  Datapro Research, 7/89, p.CM47-005-100

Software:  Quattro 1.0  
Company:  Borland International Inc.  
Type:  PC  
Package:  Spreadsheet  
Source:  Datapro Research, 7/89, p.CM47-005-101

Software:  PC-Calc+ 1.0  
Company:  ButtonWare Inc.  
Type:  PC  
Package:  Spreadsheet  
Source:  Datapro Research, 7/89, p.CM47-005-102

Software:  Encore! Plus 1.0  
Company:  Ferox Microsystems, Inc.  
Type:  
Package:  Spreadsheet  
Source:  Datapro Research, 7/89, p.CM47-005-103
Software: The Smart Spreadsheet 3.10
Company: Informix Software, Inc.
Type: PC
Package: Spreadsheet
Source: Datapro Research, 7/89, p.CM47-005-103

Software: Spread 3.1
Company: L & L Products, Inc.
Type: BOTH
Package: Spreadsheet
Source: Datapro Research, 7/89, p.CM47-005-104

Software: Twin Level III 3.0
Company: Mosaic Software, Inc.
Type: PC
Package: Spreadsheet
Source: Datapro Research, 7/89, p.CM47-005-106

Software: Super Spreading
Company: QAX International Systems Corp.
Type: PC
Package: Spreadsheet
Source: Datapro Research, 7/89, p.CM47-005-107

Software: FreeCalc 2.1
Company: Stilwell Software Products
Type: PC
Package: Spreadsheet
Source: Datapro Research, 7/89, p.CM47-005-108

Software: WINGZ 1.0
Company: Informix Software
Type: Apple
Package: Spreadsheet
Source: MacWorld, 6/89, p.148

Software: Database
Company: Preferred Publishers
Type: Apple
Package: Spreadsheet
Source: MacWorld, 6/89, p.131

Software: FileMaker II
Company: Claris
Type: Apple
Package: Spreadsheet
Source: MacWorld, 6/89, p.131
Software: Microsoft File
Company: Microsoft
Type: Apple
Package: Spreadsheet
Source: MacWorld, 6/89, p.131

Software: Panorama
Company: ProVue
Type: Apple
Package: Spreadsheet
Source: MacWorld, 6/89, p.131

Software: Full Impact 1.0
Company: Ashton-Tate
Type: Apple
Package: Spreadsheet
Source: Datapro Research, 7/89, p.CM47-005-101

Software: Microsoft Excel 2.2
Company: Microsoft Corp.
Type: Apple
Package: Spreadsheet
Source: Datapro Research, 7/89, p.CM47-005-105

Software: Ability Plus 1.01
Company: Migent Inc.
Type: PC
Package: Integrated
Source: PC World, 4/89, p.94

Software: AlphaWorks 1.0
Company: Alpha Software Corp.
Type: PC
Package: Integrated
Source: PC World, 4/89, p.95

Software: Microsoft Works 1.05
Company: Microsoft Corp.
Type: PC
Package: Integrated
Source: PC World, 4/89, p.99

Software: Kaleidagraph 2.0
Company: Synergy Software
Type: Apple
Package: Analysis Program
Source: MacWorld, 4/90, p.197
Software: SimCity
Company: Maxis Software
Type: Apple
Package: City Simulation Game
Source: MacWorld, 11/89, p.231
APPENDIX C

SOFTWARE REVIEW FOR
FRAMEWORK III AND MICROSOFT WORKS
SOFTWARE RATING FOR FRAMEWORK III

I. Introduction
   1.1 Framework III

2. Programs within Framework III
   2.1 Word Processing
   2.2 Spreadsheets
   2.3 Graphics
   2.4 Outlining
   2.5 Databases
   2.6 Network Mail
   2.7 Telecommunications
   2.8 Macros
   2.9 FRED Programming Language

3. Personal Opinion of Framework III
   3.1 Strengths
   3.2 Weaknesses
   3.3 Rating of Software

INTRODUCTION

In learning how to use Framework III I have found many benefits in my review. Framework III is helpful for students because it is integrated, which means that there are numerous programs at the disposal of the student. Integrated packages reduces the cost of buying software separately. Most students will employ the use of wordprocessing, spreadsheet, database, and graphic software. Framework III provides these four programs, as well as providing five other programs.

There are certain capabilities that Framework III
provides that I found extremely helpful and beneficial for the novice or experienced user. The On-Screen help functions are particularly helpful when you are just beginning or when you need a refresher. I also like the fact that this program has pop-down menus, I find these easier to understand and to work with. Yet another positive feature of Framework III is its user-friendly manual. Many times throughout my review I needed assistance in a particular program, I found that in reading the specific section in the book "new light" was shed on the problem. I must admit that there were a few programs, specifically the Database program that I am still unsure of, even after reading the manual.

PROGRAMS WITHIN FRAMEWORK III

The fact that Framework III is an integrated software makes it extremely useful for a number of different uses. There are nine programs that are available to Framework III users:

- outlining
- wordprocessing
- network mail
- telecommunications
- spreadsheets
- databases
- graphics
- macros
- FRED Programming Language

WORDPROCESSING

The Wordprocessing program within Framework III is extremely easy to use. The novice will find that this program enables them to be "up and running" in no time. As
with most wordprocessing programs that I have used, I believe that the ease enables the individual to feel confident in their abilities to use a "computer". I have used wordstar, wordperfect 4.2 and 5.0, and now Frameworks version, although the program is efficient and effective, I still prefer Wordperfect 5.0.

**SPREADSHEETS**

The spreadsheet program is fairly easy to understand. I practiced using the spreadsheet program with a lesson in "Living with Computers" by Patrick G. McKeown. Since the commands were different I did have to look up the commands for Framework III. Entering the data was done with ease. I successfully completed tasks for the spreadsheet, such as enlarging columns, inputting formulas, and copying formulas. I have used other spreadsheets such as Lotus 1-2-3, Symphony, and a program in HBJ. I find Framework III's spreadsheet program to be equal in comparison to other spreadsheets in its ease and product.

**GRAPHICS**

I found the graphics program to be somewhat difficult. I used the spreadsheet program to enter the data for my graphs. It was at the point of highlighting the data for the graph that I began to have difficulty. I finally was successful in creating graphics, however a negative aspect involved my printed version. I found that what was on the screen was not printed in the same fashion. I believe this
inconsistency is due to my printer capabilities.

OUTLINING

The Outlining program is extremely helpful in organizing your thoughts and approaches to writing a report or paper. The program is self-explanatory, making it extremely easy to use. Adding or deleting frames is done with ease, as well as many other tasks within the program. Professors requiring a paper usually likes to have an outline, therefore this program is appropriate for any student, employee, or anyone wanting an outline.

DATABASES

I found the database program to be extremely difficult. I was unable to complete one, even after extensive review of the book.

NETWORK MAIL, TELECOMMUNICATIONS, MACROS, AND FRED PROGRAMMING LANGUAGE

I did not review the above mentioned programs, primarily because these programs will not be used by most students, whether they be undergraduate or graduate students. Although there are nine programs that can be used in this software package, I believe the one that most students will use will be the wordprocessing program. In every class that an undergraduate or graduate students takes, there is always term papers to write. The ease of the wordprocessing program is extremely adaptable for any student.

PERSONAL OPINION OF FRAMEWORK III
Learning any new software you encounter good and bad traits of the program. There are numerous features in Framework III that I have not touched upon, primarily because I am not familiar with them. However based on my knowledge of Framework III I believe that it is relatively "user-friendly" and perhaps most important, has the potential to answer "common" questions through its on-line help option. Software that is not integrated may have some advantages over Framework III because it is integrated, but I believe the very fact of it being integrated is an advantage to most students.

Students in the MPA program will undoubtedly use the wordprocessing and outlining program. Depending on the other courses taken, students will employ the use of spreadsheets, graphics, and databases. Therefore I feel confident to say that if all MPA courses made available Framework III, there would be increased efficient and effective students.

SOFTWARE RATINGS: (On a scale of 1-10, 1=worst and 10=best)

<table>
<thead>
<tr>
<th>Software</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wordprocessing</td>
<td>8.5</td>
</tr>
<tr>
<td>Spreadsheets</td>
<td>5.5</td>
</tr>
<tr>
<td>Graphics</td>
<td>5.0</td>
</tr>
<tr>
<td>Outlining</td>
<td>9.0</td>
</tr>
<tr>
<td>Databases</td>
<td>3.0</td>
</tr>
<tr>
<td>Network Mail</td>
<td>N/A</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>N/A</td>
</tr>
<tr>
<td>Macros</td>
<td>N/A</td>
</tr>
<tr>
<td>FRED Programming Language</td>
<td>N/A</td>
</tr>
</tbody>
</table>

N/A = Not Available due to incomplete review.
SOFTWARE RATING FOR MICROSOFT WORKS

1. Introduction
   1.1 Microsoft Works - for PC

2. Programs within Microsoft Works
   2.1 Word Processing
   2.2 Spreadsheets & Charts
   2.3 Databases & Reports
   2.4 Communications

3. Personal Opinion of Microsoft Works
   3.1 Strengths
   3.2 Weaknesses
   3.3 Rating of Software

INTRODUCTION

Reviewing Microsoft Works enables the novice to become aware of the many different aspects offered by Works. The integrated package of Works enables the user to use wordprocessing, spreadsheets/charts, databases/reports, and communications, which provides the main functions used by students.

Works appears more equipped than Framework III in many aspects, however, the main disadvantage of Works is the lack of programs available in the integrated software. Microsoft Works has four, whereas Framework III has nine. The positive aspect is that Works shows the user how they can use the different programs in an integrated fashion.

One of the services offered through Works is their
on-line Help functions. There are several options: MicroSoft Works Help gives an overview of how to use the Help option; the Help Index gives five basic categories, once a category is chosen then the basic skill topics are available for review. The Works Tutorial allows you to go through all four programs in a demonstration/hands-on manner.

Another aspect that is favorable of Works is that the same commands are used in all four programs. The user does not have to worry about remembering or learning new commands in order to complete their work. Works also provides the user with pop-down menus, which I find extremely beneficial to the beginner or advanced student. Students have the option of using a keyboard or a mouse, which adds to the versatility of the software.

PROGRAMS WITHIN MICROSOFT WORKS

As mentioned previously there are four programs within MicroSoft Works: wordprocessing, spreadsheets/charts, databases/reports, and communications.

WORDPROCESSING

The wordprocessing program is easy to use, however, if problems arise the Works Tutorial aids the user. Most questions a student might ask are covered in the tutorial, from a tour of wordprocessing to formatting paragraphs to printing. The program is self-explanatory which provides
the user to feel confident.

SPREADSHEETS/CHARTS

This program is extremely easy to use, however, there are some functions such as column width that I needed to review through the tutorial before I was able to complete my task. The spreadsheet program is extremely advanced in that many functions can be performed, such as 57 financial, statistical, and scientific functions.

A function that I find particularly beneficial is that charts can be made from your spreadsheet with just a few commands. There are eight charts that can be done: bar, stacked bar, 100% bar, line, area line, pie, x-y, and hi-lo-close. If information is changed in the spreadsheet, the chart will be changed accordingly. The charts made in Microsoft Works are impressive, however, the only problem is that the wording is extremely small. This may be due to something I have not done, however, I am still in the beginning stage.

DATABASES/REPORTS

This particular program I found to be rather difficult. The entering of the data was not particularly difficult because it is very similar to the database program in HBJ. The difficulty arose in printing my results. After numerous attempts, I still have not been able to print. It is rather odd, I believe, that the most difficulty I have had is with
the database program in both software packages (Framework III and Microsoft Works). Although, I have successfully worked on HBJ's database program.

COMMUNICATIONS

This program is a little difficult to judge, however, I feel positive that any student can use the program when needed. My assurance comes from the Communications Tutorial, which I reviewed.

PERSONAL OPINION OF MICROSOFT WORKS

Most of my opinions regarding Framework III apply to Microsoft Works. There are functions within each program that I still need to review, however, the basics of completing a project are relatively easy. The Help options available throughout your work is extremely beneficial. The fact that Works is integrated is a great advantage for students.

Another plus provided in Works is the capabilities of combining all four programs. If the user is unfamiliar with this process, on-line help is provided. Microsoft Works has everything a student in the MPA program would need. This software can be used by a wide variety of individuals, whether it be at school, home, or work.

SOFTWARE RATINGS (On a scale of 1-10, 1=worst and 10=best).

Wordprocessing = 8.5 Spreadsheets/Charts = 8.0
Databases/Reports = 4.0 Communications = 7.0
<table>
<thead>
<tr>
<th>Feature</th>
<th>Microsoft Works</th>
<th>Framework III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Processing</td>
<td>8.5</td>
<td>8.5</td>
</tr>
<tr>
<td>Spreadsheets</td>
<td>8.0</td>
<td>5.5</td>
</tr>
<tr>
<td>Graphics</td>
<td>8.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Outlining</td>
<td>Not Offered</td>
<td>9.0</td>
</tr>
<tr>
<td>Databases</td>
<td>4.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Reports</td>
<td>4.0</td>
<td>Not Offered</td>
</tr>
<tr>
<td>Network Mail</td>
<td>Not Offered</td>
<td>Not Available</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>7.0</td>
<td>Not Available</td>
</tr>
<tr>
<td>Macros</td>
<td>Not Offered</td>
<td>Not Available</td>
</tr>
<tr>
<td>FRED Programming Language</td>
<td>Not Offered</td>
<td>Not Available</td>
</tr>
</tbody>
</table>
APPENDIX D

PAPER ON IBM/PC - WORDPERFECT 5.0
RE-TYPED RESEARCH METHODS COURSES
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<th>Page</th>
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<td>81</td>
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</table>
RESEARCH PROCESS PAPER

Problem
In the syllabus prepared by McEachern (1987) for P.A. 591 and P.A. 691, there is presented a detailed explication for the major stages in any basic research process. The problem undertaken in this study was to: (1) determine whether the presented explication is congruent with notions of all U.S.C. professors teaching research courses; and (2) explore whether this congruency differs as a function of whether the research course taught were at the undergraduate level.

Theory
According to McEachern (1987), the research process entails ten major phases. These are: (1) defining the problem; (2) collating a set of propositions about the problem which serve as the conceptual framework of theory underlying the research; (3) using theory to formulate one or more propositions or hypotheses about the problem; (4) operationalization variables, paying special attention to their validity and reliability; (5) specifying the research design in terms of independent, dependent, and control
variables; (6) defining the population of interest and relating it to sample-selection procedures; (7) presenting and discussing pertinent instrumentation; (8) specifying all procedures that are used to collect data; (9) analyzing data; and (10) interpreting results and relating them to the conceptual framework or theory previously determined.

What needs to be realized here is that the basic research process as delineated by McEachern finds support for its various phases in a wide variety of disciplines; i.e. in psychology (see: Kiess and Bloomquist, 1985) in education (see: Borg and Gall, 1971), and sociology (see: Smelser, 1980).

However, it must also be realized that not all authors agree as to the needs for all ten McEachern's listed phases. For example, Bachrach (1981) has noted that theory building or use in a good deal of research may not be as necessary as many believe. He stated that theories too often become rigid, that many times people use the same observations in support of widely diverse theories and that, in addition, so called "theories" are frequently formulated on the bases of very little empirical data. This notion that theory may not be needed in many research efforts has been argued by many others as well (e.g. Cook and Campbell, 1979; Skinner, 1975).

It seems reasonable to suggest that there can be
differences in the literature on research and those steps that constitute the basic process, then there may also be disagreement about those steps in a sample of professors teaching research courses. Furthermore, since almost any graduate degree is a research degree--hence the need to demonstrate acquired knowledge via a thesis or dissertation--it seems reasonable to believe that how professors conceptualize and teach the basic research process may differ depending upon whether they are teaching undergraduate research courses or graduate research courses.

Relating the foregoing reasoning to this study, it seemed reasonable to wonder whether U.S.C. professors teaching research courses taught the same ten phases of the basic research process as those delineated by McEachern and whether the degree to which they did teach the same ten phases significantly differed depending upon whether they were teaching undergraduate or graduate level research courses. These notions served as the theoretical rationale underlying this study.

**Hypotheses**

Obviously, the research undertaken here has not been conducted prior. This means that there is no existing work which would provide some empirical basis for the formulation of directional hypotheses. For this reason, all hypotheses tested in this study were formulated as null theses. These
null theses may be delineated as follows:

**Null Hypothesis 1.** The number of courses observed to be teaching the same basic research process as that delineated by McEachern will not significantly differ from the number of courses observed not to be teaching the same research process.

**Null Hypothesis 2.** The number of courses observed to be teaching the same basic research process delineated by McEachern will not significantly differ as a function of whether the course being taught were at the graduate or the undergraduate level.

**Operational Definitions**

It was stated that the problem undertaken in the study was to: (1) determine whether McEachern's explication of the basic research process was congruent with the notions of all U.S.C. professors teaching research courses; and (2) explore whether congruency differed as a function of whether research courses were at the graduate or the undergraduate level.

With respect to the above, the construct of "congruency" was operationalized by comparing a copy of McEachern's delineated research process to syllabuses of basic research processes prepared by all U.S.C. professors teaching research courses and making a judgement as to whether the two delineated processes were the same (a
judgment of Yes) or different (a judgment of No).

Determining whether research courses being taught by professors were at the graduate or undergraduate level was accomplished by examining the school catalogue for verification of which category each course fell into.

Also, it is to be noted that each semester there are some differences in which research classes are taught and in who it is that is teaching the courses. Therefore, a restriction upon the operational measure of congruency is that is relates only to the current research courses being taught and to the current people teaching them.

Research Design

The study has two independent variables. The first independent variable is level of congruency with two levels: Yes (congruent) and No (noncongruent). The second independent variable is a type of course with two levels: Graduate and Undergraduate. The dependent measure is basically a tally of the number of courses.

Instruments

The study was basically nonreactive in nature requiring no test instrument.

Data Collection Procedures

Using the school catalogue, (1987-1988), the investigator prepared a list of all research courses at U.S.C. A syllabus for each course was obtained with the
exception of three courses where no syllabus was forthcoming. The researcher then compared each obtained syllabus with McEachern's syllabus and judged whether the described research process was the same (Yes) or different (No). The school catalogue was also used to determine whether courses were graduate level or undergraduate level.

Data Analysis

The analysis conducted to test null hypothesis 1 was a one-way Chi Square analysis comparing the proportion of courses that were congruent with McEachern's basic research notions to the proportion of courses that were not congruent. Table 1 presents the contingency table observed for this analysis along with the observed value of Chi Square. As can be seen from Table 1, findings were significant (Chi Square = 41.2, df = 1, p less than .001). Specifically, it was observed that courses were congruent with McEachern's delineation of the basic research process to a significantly greater extent than they were noncongruent.
Table 1

CONTINGENCY TABLE AND OBSERVED VALUE OF CHI SQUARE CONDUCTED FOR THE CONGRUENCY VARIABLE

<table>
<thead>
<tr>
<th></th>
<th>Congruency</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NO  YES</td>
<td></td>
</tr>
<tr>
<td>Observed Frequencies</td>
<td>1   46</td>
<td>47</td>
</tr>
<tr>
<td>Expected Frequencies</td>
<td>23.5 23.5</td>
<td>47</td>
</tr>
</tbody>
</table>

\[
\text{Chi Square} = \frac{(|1-23.5|-.5)^2}{23.5} + \frac{(|46-23.5|-.5)^2}{23.5}
\]

\[
= 20.6 + 20.6
\]

\[
= 41.2 \text{ for } df = 1, \ p \less \ .001
\]
In order to determine whether congruency proportions differed depending upon whether courses were at the graduate or undergraduate level, a two-way Chi Square analysis was conducted. Both the contingency table observed for this analysis and the calculated value of Chi Square are presented in Table 2. As can be seen from inspection of this table, findings were not significant. In other words, the proportion of courses congruent at the graduate level was roughly the same as the proportion of courses which were congruent at the undergraduate level.
### Table 2

**CONTINGENCY TABLE AND OBSERVED VALUE OF CHI SQUARE CONDUCTED FOR THE COURSE LEVEL VARIABLE**

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Congruency</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<tr>
<td>Undergraduate</td>
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<td>11</td>
</tr>
<tr>
<td>Graduate</td>
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<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>1  46</td>
<td>47</td>
</tr>
</tbody>
</table>

\[
\text{Chi Square} = \frac{47(|11-0|-23.5)}{(11)(36)(1)(46)} = \frac{7,347.75}{18,216.00} = .403 \text{ for df = 1, p greater than .05}
\]
The undertaken study is insufficient in scale to warrant a revision of the theory that different professors may conceptualize the basic research process in a manner different from McEachern, or even that conceptualizations (either in-line with or against McEachern) differ depending upon whether courses are graduate level or undergraduate level courses.

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observing the data, subtle forces can lead them to find confirming data whereas this would not occur when observers do not know the research hypotheses.

A second factor obstructing attempts to revise the theory on the basis of this study's findings concerns the operationalization of congruency as a subjective comparison. It seems reasonable to believe that had other means of operationalization been applied, findings might have been different. For example, instead of subjective comparison made by an observer, perhaps it would have been more valid to have each professor read over a copy of McEachern's syllabus and then rate the level of agreement or congruency between how that professor conceptualized it.

If ratings has been made on some sort of equal-interval scale, an added bonus for such an operationization would have been that in order to make the comparison between undergraduate and graduate level courses, ratings could have been analyzed using parametric statistic such as the analyses of variance instead of a low-powered statistic like the Chi Square analysis.

Also, even if all procedures were unflawed, there still would be insufficient reason to revise theory. U.S.C. is only one school. Before revising theory, it would be desirable to replicate the study at schools throughout the country so as to make sure that the revision was broadly
applicable because theories are, by nature, broad statements about relationships between variables.

A third factor which is most important is the investigator had an opportunity to view first hand the vast amount of research sources that are available. Other students may benefit by a review of the process as applied to a research problem that directly relates to the academic environment that they are in.

Lastly, the project was personally rewarding.
References


APPENDIX E

PAPER ON MACINTOSH - WORD
RE-TYPED RESEARCH METHODS COURSES
Problem

In the syllabus prepared by McEachern (1987) for P.A. 591 and P.A. 691, there is presented a detailed explication for the major stages in any basic research process. The problem undertaken in this study was to: (1) determine whether the presented explication is congruent with notions of all U.S.C. professors teaching research courses; and (2) explore whether this congruency differs as a function of whether the research course taught were at the undergraduate level.

Theory

According to McEachern (1987), the research process entails ten major phases. These are: (1) defining the problem; (2) collating a set of propositions about the problem which serve as the conceptual framework of theory underlying the research; (3) using theory to formulate one or more propositions or hypotheses about the problem; (4) operationalization variables, paying special attention to their validity and reliability; (5) specifying the research design in terms of independent, dependent, and control
variables; (6) defining the population of interest and relating it to sample-selection procedures; (7) presenting and discussing pertinent instrumentation; (8) specifying all procedures that are used to collect data; (9) analyzing data; and (10) interpreting results and relating them to the conceptual framework or theory previously determined.

What needs to be realized here is that the basic research process as delineated by McEachern finds support for its various phases in a wide variety of disciplines; i.e. in psychology (see: Kiess and Bloomquist, 1985) in education (see: Borg and Gall, 1971), and sociology (see: Smelser, 1980).

However, it must also be realized that not all authors agree as to the needs for all ten McEachern's listed phases. For example, Bachrach (1981) has noted that theory building or use in a good deal of research may not be as necessary as many believe. He stated that theories too often become rigid, that many times people use the same observations in support of widely diverse theories and that, in addition, so-called "theories" are frequently formulated on the bases of very little empirical data. This notion that theory may not be needed in many research efforts has been argued by many others as well (e.g. Cook and Campbell, 1979; Skinner, 1975).
It seems reasonable to suggest that there can be differences in the literature on research and those steps that constitute the basic process, then there may also be disagreement about those steps in a sample of professors teaching research courses. Furthermore, since almost any graduate degree is a research degree—hence the need to demonstrate acquired knowledge via a thesis or dissertation— it seems reasonable to believe that how professors conceptualize and teach the basic research process may differ depending upon whether they are teaching undergraduate research courses or graduate research courses.

Relating the foregoing reasoning to this study, it seemed reasonable to wonder whether U.S.C. professors teaching research courses taught the same ten phases of the basic research process as those delineated by McEachern and whether the degree to which they did teach the same ten phases significantly differed depending upon whether they were teaching undergraduate or graduate level research courses. These notions served as the theoretical rationale underlying this study.

Hypotheses

Obviously, the research undertaken here has not been conducted prior. This means that there is no existing work which would provide some empirical basis for the formulation
of directional hypotheses. For this reason, all hypotheses tested in this study were formulated as null theses. These null theses may be delineated as follows:

**Null Hypothesis 1.** The number of courses observed to be teaching the same basic research process as that delineated by McEachern will not significantly differ from the number of courses observed not to be teaching the same research process.

**Null Hypothesis 2.** The number of courses observed to be teaching the same basic research process delineated by McEachern will not significantly differ as a function of whether the course being taught were at the graduate or the undergraduate level.

**Operational Definitions**

It was stated that the problem undertaken in the study was to: (1) determine whether McEachern's explication of the basic research process was congruent with the notions of all U.S.C. professors teaching research courses; and (2) explore whether congruency differed as a function of whether research courses were at the graduate or the undergraduate level.

With respect to the above, the construct of "congruency" was operationalized by comparing a copy of McEachern's delineated research process to syllabuses of
basic research processes prepared by all U.S.C. professors teaching research courses and making a judgement as to whether the two delineated processes were the same (a judgment of Yes) or different (a judgment of No).

Determining whether research courses being taught by professors were at the graduate or undergraduate level was accomplished by examining the school catalogue for verification of which category each course fell into.

Also, it is to be noted that each semester there are some differences in which research classes are taught and in who it is that is teaching the courses. Therefore, a restriction upon the operational measure of congruency is that it relates only to the current research courses being taught and to the current people teaching them.

Research Design

The study has two independent variables. The first independent variable is level of congruency with two levels: Yes (congruent) and No (noncongruent). The second independent variable is a type of course with two levels: Graduate and Undergraduate. The dependent measure is basically a tally of the number of courses.

Instruments

The study was basically nonreactive in nature requiring no test instrument.
Data Collection Procedures

Using the school catalogue, (1987-1988), the investigator prepared a list of all research courses at U.S.C. A syllabus for each course was obtained with the exception of three courses where no syllabus was forthcoming. The researcher then compared each obtained syllabus with McEachern's syllabus and judged whether the described research process was the same (Yes) or different (No). The school catalogue was also used to determine whether courses were graduate level or undergraduate level.

Data Analysis

The analysis conducted to test null hypothesis 1 was a one-way Chi Square analysis comparing the proportion of courses that were congruent with McEachern's basic research notions to the proportion of courses that were not congruent. Table 1 presents the contingency table observed for this analysis along with the observed value of Chi Square. As can be seen from Table 1, findings were significant (Chi Square = 41.2, df = 1, p less than .001). Specifically, it was observed that courses were congruent with McEachern's delineation of the basic research process to a significantly greater extent than they were noncongruent.
In order to determine whether congruency proportions differed depending upon whether courses were at the graduate or undergraduate level, a two-way Chi Square analysis was conducted. Both the contingency table observed for this analysis and the calculated value of Chi Square are presented in Table 2. As can be seen from inspection of this table, findings were not significant. In other words, the proportion of courses congruent at the graduate level was roughly the same as the proportion of courses which were congruent at the undergraduate level.

**Interpretation and Theory Revision**

The undertaken study is insufficient in scale to warrant a revision of the theory that different professors may conceptualize the basic research process in a manner different from McEachern, or even that conceptualizations (either in-line with or against McEachern) differ depending upon whether courses are graduate level or undergraduate level courses.

In addition to the small scale nature of the study, there are other factors which would make it unwise to attempt to revise the theory on the basis of this study's findings. The first factor is that the investigator acted as the single observer in the study making all the comparisons of professors' syllabuses with McEachern's
syllabus. As noted by Kiess and Bloomquist (1985), it is probably not a good idea to allow one person to be a data observer, especially when subjective judgments are called for. In this regard, it would have been better to have had at least three observers and then make the judgment on the basis of consensus among the observers. Also, the fact that the investigator knew the research hypotheses also probably made him a bad choice as the observer because, as pointed out by Adair (1973), when investigators know the research hypotheses and are then charged with the obligation of observing the data, subtle forces can lead them to find confirming data whereas this would not occur when observers do not know the research hypotheses.

A second factor obstructing attempts to revise the theory on the basis of this study's findings concerns the operationalization of congruency as a subjective comparison. It seems reasonable to believe that had other means of operationalization been applied, findings might have been different. For example, instead of subjective comparison made by an observer, perhaps it would have been more valid to have each professor read over a copy of McEachern's syllabus and then rate the level of agreement or congruency between how that professor conceptualized it.
If ratings has been made on some sort of equal-interval scale, an added bonus for such an operationization would have been that in order to make the comparison between undergraduate and graduate level courses, ratings could have been analyzed using parametric statistic such as the analyses of variance instead of a low-powered statistic like the Chi Square analysis.

Also, even if all procedures were unflawed, there still would be insufficient reason to revise theory. U.S.C. is only one school. Before revising theory, it would be desirable to replicate the study at schools throughout the country so as to make sure that the revision was broadly applicable because theories are, by nature, broad statements about relationships between variables.

A third factor which is most important is the investigator had an opportunity to view first hand the vast amount of research sources that are available. Other students may benefit by a review of the process as applied to a research problem that directly relates to the academic environment that they are in.

Lastly, the project was personally rewarding.
APPENDIX F

GRAMMAR OPTIONS AVAILABLE WITHIN RIGHT WRITER
RIGHT WRITER'S RULES

**GRAMMAR RULES***

<table>
<thead>
<tr>
<th>Rule</th>
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<td>NOUN VERB MISMATCH</td>
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<td>SENTENCE FRAGMENT</td>
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<tr>
<td>RUN-ON SENTENCE</td>
<td>POSSESSIVE USE</td>
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<tr>
<td>MISUSED VERB</td>
<td>IS THIS CORRECT?</td>
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<tr>
<td>MISUSED PRONOUN</td>
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<td>MISUSED ARTICLE</td>
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**STYLE RULES***

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<td>USE SIMPLER WORD</td>
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<td>SENTENCE LENGTH</td>
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<tr>
<td>DIFFICULT SENTENCE</td>
<td>AMBIGUOUS WORDING</td>
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<td>CLICHE</td>
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<td>LONG PARAGRAPH</td>
<td>WEAK WORDING</td>
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<td>START WITH BUT</td>
<td>OVERUSED PHRASES</td>
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<td>CONJUNCTION START</td>
<td>SINGLE WORD QUOTE</td>
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<tr>
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<td>CONTRACTION</td>
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* All rules may be turned ON or OFF for every analysis.
USAGE RULES*

COLLOQUIAL AND SLANG
ARCHAIC
SEXIST
LEGALESE
COMPUTER TERMS
VAGUE
WORDY
REDUNDANT

QUESTIONABLE WORD
NOT A WORD
OFFENSIVE
REPHRASE
MODIFIED ABSOLUTE
MISLEADING EUPHEMISM
NEGATIVE
USER FLAG

PUNCTUATION RULES*

MISSING QUESTION MARK
UNNECESSARY COMMA
MISSING COMMA
MISUSED SEMICOLON
MISUSED QUOTES

REVERSED PUNCTUATION
UNBALANCED QUOTE
UNBALANCED BRACKET
UNBALANCED PARENTHESIS
UNUSUAL PUNCTUATION

* All rules may be turned ON or OFF for every analysis.
APPENDIX G
RIGHT WRITER'S IBM/PC ANALYSIS
RESEARCH PROCESS PAPER

Problem

In the syllabus prepared by McEachern (1987) for P.A. 591 and P.A. 691, there is presented a detailed explication for the major stages in any basic research process. The problem undertaken in this study was to: (1) determine whether the presented explication is congruent with notions of all U.S.C. professors teaching research courses; and (2) explore whether this congruency differs as a function of whether the research course taught were at the undergraduate level.

Theory

According to McEachern (1987), the research process entails ten major phases. These are: (1) defining the problem; (2) collating a set of propositions about the problem which serve as the conceptual framework of theory underlying the research; (3) using theory to formulate one or more propositions or hypotheses about the problem; (4)
operationalization. IS THIS A WORD?
operationalization variables, paying special attention to their validity and reliability;

(5) specifying the research design in terms of independent, dependent,

(6) defining the population of interest and relating it to sample-selection procedures; (7) presenting and discussing pertinent instrumentation;

(8) specifying all procedures that are used to collect data; (9) analyzing data;

and (10) interpreting results and relating them to the conceptual framework or theory previously determined.

What needs to be realized here is that the basic research process as delineated by McEachern finds support for its various phases in a wide variety of disciplines; i.e. in psychology (see: Kiess and Bloomquist,
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It seems reasonable to suggest that there can be differences in the literature on research and those steps that constitute the basic process, then there may also be disagreement about those steps in a sample of professors teaching research courses. Furthermore, since almost any graduate degree is a research degree—hence the need to demonstrate acquired knowledge via a thesis or dissertation— it seems reasonable to believe that how professors conceptualize and teach the basic research process may differ depending upon whether they are teaching undergraduate research courses or graduate research courses. Relating the foregoing reasoning to this study, it seemed reasonable to wonder whether U.S.C. professors teaching research courses taught the same ten phases of the basic research process as those delineated by McEachern and
whether the degree to which they did teach the same ten phases significantly differed depending upon whether they were teaching undergraduate or graduate level research courses. These notions served as the theoretical rationale underlying this study.

**Hypotheses**

Obviously, the research undertaken here has not been conducted prior. This means that there is no existing work which would provide some empirical basis for the formulation of directional hypotheses. For this reason, all hypotheses tested in this study were formulated as null theses. These null theses may be delineated as follows:

**Null Hypothesis 1.** The number of courses observed to be teaching the same basic research process as that delineated by McEachern will not significantly differ from the number of courses not to be teaching the same research process.
Null Hypothesis 2. The number of courses observed to be teaching the same basic research process delineated by McEachern will not significantly differ as a function of whether the course being taught were at the graduate or the undergraduate level.

Operational Definitions

It was stated that the problem undertaken in the study was to: (1) determine whether McEachern's explication of the basic research process was congruent with the notions of all U.S.C. professors teaching research courses; and (2) explore whether congruency differed as a function of whether research courses were at the graduate or the undergraduate level.

With respect to the above, the construct of "congruency" was operationalized by comparing a copy of McEachern's delineated version.
PASSIVE VOICE: McEachern's delineated research process to syllabuses of basic research processes prepared by all U.S.C. professors teaching research courses and making a judgement as to whether the two delineated processes were the same (a judgment of Yes) or different (a judgment of No).

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Instruments

The study was basically nonreactive in nature requiring no test instrument.

Data Collection Procedures

Using the school catalogue, (1987-1988), the investigator prepared a list of all research courses at U.S.C. A syllabus for each course was obtained with the exception of three courses where no syllabus was forthcoming. The researcher then compared each obtained syllabus with
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Table 1

CONTINGENCY TABLE AND OBSERVED VALUE OF CHI SQUARE CONDUCTED FOR THE CONGRUENCY VARIABLE

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<tr>
<td></td>
<td>NO</td>
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<td>Observed Frequencies</td>
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<td>Expected Frequencies</td>
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\[ \chi^2 = \frac{(1-23.5)^2}{23.5} + \frac{(46-23.5)^2}{23.5} \]

\[ = 20.6 + 20.6 \]

\[ = 41.2 \quad \text{for df = 1, p less than} < 0.001 \]
In order to determine whether congruency proportions differed depending upon whether courses were at the graduate or undergraduate level, a two-way Chi Square analysis was conducted. Both the contingency table observed for this analysis and the calculated value of Chi Square are presented in Table 2. As can be seen from inspection of this table, findings were not significant. In other words, the proportion of courses congruent at the graduate level was roughly the same as the proportion of courses which were congruent at the undergraduate level.
### Table 2

**CONTINGENCY TABLE AND OBSERVED VALUE OF CHI SQUARE CONDUCTED FOR THE COURSE LEVEL VARIABLE**

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<tr>
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\[
\text{Chi Square} = \frac{47(|11-0|-23.5)}{(11)(36)(1)(46)} = \frac{7,347.75}{18,216.00} = 0.403 \text{ for df = 1, p greater than } 0.05
\]
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The undertaken study is insufficient\textsuperscript{13. REPLACE insufficient BY SIMPLER not enough?} in scale to warrant a revision of the theory that different professors may conceptualize the basic research process in a manner different from McEachern, or even that conceptualizations\textsuperscript{14. IS THIS A WORD? conceptualizations} (either in-line with or against McEachern) differ depending upon whether courses are graduate level or undergraduate level courses.\textsuperscript{G3. SPLIT INTO 2 SENTENCES?} The first factor is that the investigator acted as the single observer\textsuperscript{13. REPLACE Observer BY FORM OF SIMPLER see?} in the study making all the comparisons of professors' syllabuses with McEachern's\textsuperscript{S21. CONTRACTION} syllabus. As noted by Kiess and Bloomquisto (1985), it is probably not a good idea to allow one person to be a data observer\textsuperscript{13. REPLACE observer BY FORM OF SIMPLER see?}, especially when

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subjective judgments are called for. In this regard, it would have been better to have had at least three observers and then make the judgment on the basis of consensus among the observers. Also, the fact that the investigator knew the research hypotheses also probably made him a bad choice as the observer because, as pointed out by Adair (1973), when investigators know the research hypotheses and are then charged with the obligation of observing the data, subtle forces can lead them to find confirming data whereas this would not occur when observers do not know the research hypotheses.

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the basis of this study's findings concerns the operationalization of congruency as a subjective comparison. It seems reasonable to believe that had other means of operationalization been applied, findings might have been different. For example, instead of subjective comparison made by an observer, perhaps it would have been more valid to have each professor read over a copy of McEachern's syllabus and then rate the level of agreement or congruency between how that professor conceptualized it.

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parametric statistic such as the analyses of variance instead of a low-powered statistic like the Chi Square analysis.

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References


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Output document name: C:\WP50\YOUNGRES.OUT

READABILITY INDEX: 12.28

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SIMPLE | GOOD | COMPLEX

Readers need a 12th grade level of education.

STRENGTH INDEX: 0.00

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WEAK | STRENGTH

The writing can be made more direct by using:
- the active voice
- shorter sentences
- less wordy phrases
- fewer weak phrases
- more common words
- fewer abbreviations

DESCRIPTIVE INDEX: 0.46

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TERSE | NORMAL | WORDY

The use of adjectives and adverbs is normal.

JARGON INDEX: 0.21

SENTENCE STRUCTURE RECOMMENDATIONS:
1. Most sentences contain multiple clauses.
   Try to use more simple sentences.

<< WORDS TO REVIEW >>

Review this list for negative words (N), jargon (J), colloquial words (C), misused words (M), misspellings (?), or words which your reader may not understand (?).
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<< END OF WORDS TO REVIEW LIST >>
<<** END OF SUMMARY **>>
APPENDIX H

RIGHT WRITER'S MACINTOSH ANALYSIS
RESEARCH PROCESS PAPER

Problem

In the syllabus prepared by McEachern (1987) for P.A. 591 and P.A. 691, there is presented a detailed explication for the major stages in any basic research process. The problem undertaken in this study was to: (1) determine whether the presented explication is congruent with notions of all U.S.C. professors teaching research courses; and (2) explore whether this congruency differs as a function of whether the research course taught were at the undergraduate level.

Theory

According to McEachern (1987), the research process entails ten major phases. These are: (1) defining the problem; (2) collating a set of propositions about the problem which serve as the conceptual framework of theory underlying the research; (3) using theory to formulate one or more propositions or hypotheses about the problem; (4) operationalization.
operationalization *» variables, paying special attention to their validity and reliability;<<*_P4. SEMICOLONS
SEPARATE INDEPENDENT CLAUSES *» (5) specifying the research design in terms of<<*_U12. WORDY. REPLACE in terms of BY in
or for *» independent, dependent,<<*_G3. SPLIT INTO 2
SENTENCES? *»<<*_S3. LONG SENTENCE: 56 WORDS *»> and<<*_S8.
SENTENCE BEGINS WITH CONJUNCTION *» control variables; (6)
defining the population of interest and relating it to
sample-selection procedures; (7) presenting and discussing
pertinent instrumentation;<<*_P4. SEMICOLONS SEPARATE
INDEPENDENT CLAUSES *» (8) specifying all procedures that
are used<<*_S1. PASSIVE VOICE: are used *»> to collect data;
(9) analyzing data;<<*_P4. SEMICOLONS SEPARATE INDEPENDENT
CLAUSES *» and (10) interpreting results and relating them
to the conceptual framework or theory previously<<*_S13.
REPLACE previously BY SIMPLER before? *» determined.<<*_G3.
SPLIT INTO 2 SENTENCES? *»<<*_S3. LONG SENTENCE: 45 WORDS
*»

What needs<<*_P1. IS QUESTION MARK MISSING? *»> to be
realized<<*_S1. PASSIVE VOICE: be realized *»> here is that
the basic research process as delineated by McEachern finds
support for its various phases in a wide variety of
disciplines; i.e. in psychology (see: Kiess and Bloomquist,
1985) in education (see: Borg and Gall, 1971), and sociology
(see: Smelser, 1980). However, it must also be realized that not all authors agree as to the needs for all ten McEachern's listed phases. For example, Bachrach (1981) has noted that theory building or use in a good deal of research may not be as necessary as many believe. He stated that theories too often become rigid, that many times people use the same observations in support of widely diverse theories and that, in addition, so called "theories" are frequently formulated on the bases of very little empirical data.

This notion that theory may not be needed in many research efforts has been argued by many others as well (e.g. Cook and Campbell, 1979; Skinner, 1975).

It seems reasonable to suggest that there or...
that *>> can be differences in the literature on research and those steps that constitute<<*_S13. REPLACE constitute BY SIMPLER are or is? *>> the basic process, then there may also be disagreement about those steps in a sample of professors teaching research courses.<<*_G3. SPLIT INTO 2 SENTENCES? *>><<*_S3. LONG SENTENCE: 40 WORDS *>>
Furthermore, since almost any graduate degree is a research degree-- hence the need to demonstrate<<*_S13. REPLACE demonstrate BY SIMPLER show or prove? *>> acquired<<*_S13. REPLACE acquired BY FORM OF SIMPLER get or gain? *>> knowledge via a thesis or dissertation-- it seems<<*_S17. WEAK: seems *>> reasonable to believe that how professors conceptualize and teach the basic research process may differ depending upon whether they are teaching undergraduate research courses or graduate research courses.<<*_G3. SPLIT INTO 2 SENTENCES? *>><<*_S3. LONG SENTENCE: 52 WORDS *>>
Relating the foregoing<<*_S19. OVERUSED: foregoing *>> reasoning to this study, it seemed<<*_S17. WEAK: seemed *>> reasonable to wonder whether U.S.C. professors teaching research courses taught the same ten phases of the basic research process as those delineated by McEachern and whether the degree to which they did teach the same ten phases significantly differed depending upon whether they
were teaching undergraduate or graduate level research courses. These notions served as the theoretical rationale underlying this study.

Hypotheses

Obviously, the research undertaken here has not been conducted prior. This means that there is no existing work which would provide some empirical basis for the formulation of directional hypotheses. For this reason, all hypotheses tested in this study were formulated as null theses. These null theses may be delineated as follows:

Null Hypothesis 1. The number of courses observed to be teaching the same basic research process as that delineated by McEachern will not significantly differ from the number of courses observed not to be teaching the same research process.
Null Hypothesis 2. The number of courses observed to be teaching the same basic research process delineated by McEachern will not significantly differ as a function of whether the course being taught were at the graduate or the undergraduate level.

Operational Definitions

It was stated that the problem undertaken in the study was to: (1) determine whether McEachern's explication of the basic research process was congruent with the notions of all U.S.C. professors teaching research courses; and (2) explore whether congruency differed as a function of whether research courses were at the graduate or the undergraduate level.

With respect to the above, the construct of "congruency" was operationalized by comparing a copy of McEachern's delineated research process
to syllabuses of basic research processes prepared by all U.S.C. professors teaching research courses and making a judgement as to whether the two delineated processes were the same (a judgment of Yes) or different (a judgment of No).

Determining whether research courses being taught by professors were at the graduate or undergraduate level was accomplished by examining the school catalogue for verification of which category each course fell into. Also, it is to be noted that each semester there are some differences in which research classes are taught and in who it is that is teaching the courses. Therefore, a restriction upon the operational measure of congruency is that it relates only to the current research
courses being taught<<*_S1. PASSIVE VOICE: being taught *>> and to the current people teaching them.

Research Design

The study has two independent variables. The first independent variable is level of congruency with two levels: Yes (congruent) and No (noncongruent). The second independent variable is a type of course with two levels: Graduate and Undergraduate. The dependent measure is basically a tally of the number of courses.

Instruments

The study was basically nonreactive in nature requiring no test instrument.

Data Collection Procedures

Using the school catalogue, (1987-1988), the investigator prepared a list of all research courses at U.S.C. A syllabus for each course was obtained<<*_S1. PASSIVE VOICE: was obtained *>><<*_S13. REPLACE obtained BY FORM OF SIMPLER get? *>> with the exception of<<*_U12. WORDY. REPLACE with the exception of BY except for *>> three courses where no syllabus was forthcoming.<<*_G3. SPLIT INTO 2 SENTENCES? *>><<*_S3. LONG SENTENCE: 35 WORDS *>> The researcher then compared each obtained<<*_S13. REPLACE obtained BY FORM OF SIMPLER get? *>> syllabus with McEachern's<<*_S21. CONTRACTION *>> syllabus and judged

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whether the described research process was the same (Yes) or different (No). The school catalogue was also used to determine whether courses were graduate level or undergraduate level.

Data Analysis

The analysis conducted to test null hypothesis 1 was a one-way Chi Square analysis comparing the proportion of courses that were congruent with McEachern's basic research notions to the proportion of courses that were not congruent. Table 1 presents the contingency table observed for this analysis along with the observed value of Chi Square. As can be seen from Table 1, findings were significant (Chi Square = 41.2, df = 1, p less than .001). Specifically, it was observed that courses were congruent with McEachern's delineation of the basic research process to a significantly greater extent than they were noncongruent.
In order to determine whether congruency proportions differed depending upon whether courses were at the graduate or undergraduate level, a two-way Chi Square analysis was conducted. Both the contingency table observed for this analysis and the calculated value of Chi Square are presented in Table 2. As can be seen from inspection of this table, findings were not significant. In other words, the proportion of courses congruent at the graduate level was roughly the same as the proportion of courses which were congruent at the undergraduate level.

Interpretation and Theory Revision

The undertaken study is insufficient in scale to warrant a revision of the theory that different professors may conceptualize the basic research process in a manner different from McEachern, or even that conceptualizations.
conceptualizations (either in-line with or against McEachern) differ depending upon whether courses are graduate level or undergraduate level courses.

In addition to the small scale nature of the study, there are other factors which would make it unwise to attempt to revise the theory on the basis of this study's findings. The first factor is that the investigator acted as the single observer in the study making all the comparisons of professors' syllabuses with McEachern's syllabus. As noted by Kiess and Bloomquist (1985), it is probably not a good idea to allow one person to be a data observer, especially when subjective judgments are called for. In this regard, it would have been better to have had at least three observers and then make the judgment on the basis of consensus among the observers. Also,
the fact that the investigator knew the research hypotheses also probably made him a bad choice as the observer because, as pointed out by Adair (1973), when investigators know the research hypotheses and are then charged with the obligation of observing the data, subtle forces can lead them to find confirming data whereas this would not occur when observers do not know the research hypotheses.

A second factor obstructing attempts to revise the theory on the basis of this study's findings concerns the operationalization of congruency as a subjective comparison. It seems reasonable to believe that had other means of operationalization been applied, findings might have been...
different. For example, instead of subjective comparison made by an observer, perhaps it would have been more valid to have each professor read over a copy of McEachern's syllabus and then rate the level of agreement or congruency between how that professor conceptualized it. If ratings have been made on some sort of equal-interval scale, an added bonus for such an operationization would have been that in order to make the comparison between undergraduate and graduate level courses, ratings could have been analyzed using parametric statistic such as the analyses of variance instead of a low-powered statistic like the Chi Square analysis.

Also, even if all procedures were unflawed, there still would be insufficient.
enough? *» reason to revise theory. U.S.C. is only one school. Before revising theory, it would be desirable to replicate the study at schools throughout the country so as to«*_U12. WORDY. REPLACE so as to BY to »*» make sure that the revision was broadly applicable because theories are, by nature, broad statements about relationships between variables.<«*_G3. SPLIT INTO 2 SENTENCES? »*> «*_S3. LONG SENTENCE: 38 WORDS »*>

A third factor which is most important is the investigator had an opportunity to view first hand the vast«*_U9. IS THIS JUSTIFIED? vast »*» amount of research sources that are available. Other students may benefit by a review of the process as applied to a research problem that directly relates to the academic environment that they are in.

Lastly, the project was personally rewarding.

«*_U9. IS THIS JUSTIFIED? rewarding »*»

```** SUMMARY **```
Overall critique for: Research Process
Output document name: Project Research

READABILITY INDEX: 13.47

Readers need a 13th grade level of education. The writing is complex and may be difficult to read.

STRENGTH INDEX: 0.00

The writing can be made more direct by using: 130
the active voice
shorter sentences
less wordy phrases
fewer weak phrases
more common words
more positive wording
fewer abbreviations

DESCRIPTIVE INDEX: 0.46
The use of adjectives and adverbs is normal.

JARGON INDEX: 0.24

SENTENCE STRUCTURE RECOMMENDATIONS:
1. Most sentences contain multiple clauses.
   Try to use more simple sentences.

<< WORDS TO REVIEW >>

Review this list for words that may confuse your message. These include words that are negative, frequently misused, colloquial, or jargon. As you review each word, think of its effect on the reader.

accomplished(M) 1  according(M) 1
against(N) 1  analyzing(M) 1
applicable(M) 1  argued(N) 1
bad(N) 1  conceptual(J) 3
conceptualizations(J) 1  conceptualizes(J) 1
consensus(M) 1  constitute(M) 1
delineation(J) 1  directional(J) 1
disagreement(N) 1  dissertation(J) 1
e.g.(M) 1  empirical(J) 2
experimentation(J) 1  explication(J) 3
factor(M) 3  factors(M) 1
foregoing(M) 1  formulate(M) 1
formulated(M) 2  formulation(J) 1
insufficient(N) 2  no(N) 6
not(N) 12  null(N) 5
obstructing(N) 1  operational(J) 2
operationalization(J) 3  operationization(J) 1
opportunity(M) 1  proportion(M) 4
proportions(M) 1  psychological(J) 3
reliability(M) 1  significant(M) 2
significantly(M) 4  subjective(M) 3
theoretical(J) 1  unwise(J) 1
valid(M) 1  verification(J) 1
whereas(J) 1

<< END OF WORDS TO REVIEW LIST >>

<<** END OF SUMMARY **>>

M= Misused Words
N= Negative Words
J= Jargon
REFERENCES


PC Magazine. 1989-90 issues.

PC World. 1989-90 issues.


Young, Clifford O. Syllabus for: (P.A. 680-Fall Quarter, 1989) and (MGMT. 603-Winter Quarter, 1990).