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ATTITUDES, LEARNING AND MOTIVATION AS ISSUES

IN PUBLIC POLICY EDUCATION

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ATTITUDES, LEARNING AND MOTIVATION AS ISSUES IN PUBLIC POLICY EDUCATION

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ABSTRACT

ATTITUDES, LEARNING AND MOTIVATION AS ISSUES
IN PUBLIC POLICY EDUCATION

By

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The purpose of this study was to provide information on the public policy background of a sample of Cooperative Extension staff and clientele to aid in the formation of a program of public policy education. Theories of learning and motivation were examined for program implications.

The framework for the study was the classification of respondents as comfortable, uncomfortable, or neutral in their attitudes toward public policy based on their responses to questions on comfort in policy-oriented situations, knowledge of public policy issues, and satisfaction with that knowledge.

Comfort emerged as a critical variable in determining sustained interaction with public policy. The instrument used for the study was found to have moderately high reliability. An item analysis indicated the questionnaires were, on the whole, consistent in measuring attitudes toward public policy.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

Introduction

The study of farmers in their role of food production, the fundamental subject matter of traditional agricultural economics, cannot proceed without consideration of the public policies which influence that production. Most obvious in this respect are those public policies which directly affect the farmer's welfare, such as subsidies or special trade agreements. Yet, other public policies which have indirect effects on farm production are no less important, because the quality of life which exists for farmers and other rural Americans is ultimately a reflection of the quality of life in all segments of society.

The complex web of interrelationships comprising our society means that public policies which do not specifically consider farmers and their communities may still have significant impacts upon their well-being. The opportunity for rural residents to examine public policies which may affect their welfare could lead to improved rural conditions by fostering their increased participation in the political process and, consequently, increased control over their lives.

Dissemination of scientific, vocational, and other information related to the quality of life by the Cooperative Extension Service at Michigan State University has been the source of many improvements in rural conditions. This background qualifies the Cooperative Extension Service to assume an additional role of encouraging

community development by providing information on the creation and possible effects of public policies which may affect rural welfare, and by encouraging leadership behavior directed toward public policy formation and change.

The dissemination of public policy information by the Cooperative Extension Service is represented by project PACE (Public Affairs Community Education). The ultimate goal of project PACE is to increase the understanding of problems and issues in public policy and community development in order to improve the performance of our democratic institutions. Before this goal can be achieved, several prerequisites must be satisfied. The Extension staff participating in PACE must have a background which enables them to provide educational programs dealing with public affairs and community development. Educational material appropriate to the needs of the staff must be identified and developed. Finally, the acceptability of Extension agents in public policy educational activities must be assessed. While families and the community are the primary audience of project PACE, special attention is to be directed to reaching and developing women and women's groups with potential for community leadership.

The purpose of this study was to assist the development of project PACE by providing information which would help determine the appropriate educational experience for the Extension agents and the community members served by the Cooperative Extension staff. In the first part of this study, responses to a questionnaire on attitudes toward public policy activities and knowledge of public policy issues made by a sample of Family Living Agents and County Extension Directors were compared to responses made by a sample of women participants in College Week, a series of educational workshops. The

questionnaire was directed toward the Extension staff members most likely to affect or be affected by project PACE. The responses of the College Week participants were indicators of how the target audiences of project PACE would react to public policy programs directed toward community leadership and development. A peripheral result of the surveys was the development and refinement of an instrument to measure attitudes toward public policy. The second part of the study discusses the educational approaches which are in theory most appropriate for conducting a public policy program, given the results of the surveys.

A study dealing with attitudes of any kind is primarily useful insofar as those attitudes explain or predict behaviors of interest, in this case, behavior in policy-oriented situations. To understand the relevance of the survey results, it is necessary to establish the theoretical relationship between attitudes and behavior. The following section will review briefly the attitude-behavior literature and present hypotheses on attitudes and behaviors toward public policy activities in a "behavior model." An additional purpose of this theoretical section is to establish the rationale for the questions used in the surveys.

Definition of Attitudes

Before one can suggest that attitudes can predict behavior, the attitude concept must first be defined. De Fleur and Westie see "attitude" as a flexible concept, incorporating both "consistency and variability, uniformity and individuality, at the same time. . . [remaining] a logical inference from observable behavior."[1] Fishbein defines attitude as an abstract composite of "all the individual's

beliefs, behavioral intentions, and actions" of which any one taken individually may have no relationship with attitude.[2] Each component represents variables which may be studied on their own, although Fishbein cautions they may or may not "function as determinants of a specific behavior."[3]

Other researchers, especially those influenced by behaviorism, define attitudes as responses made to stimuli.[4] Attitudes can also be regarded as verbal and nonverbal, each having different implications for behavior. Another definition characterizes attitudes into strongly or weakly ego-involving. Strongly ego-involved attitudes appear to be more resistant to change.[5]

Attitudes toward public policy must be considered flexible in the manner defined by De Fleur and Westie for several reasons. First, public policy covers diverse areas of interest. Second, although covered under a single category such as environmentalism or consumerism, one public policy may have different impacts on major societal groups than another falling into the same category. Consequently, a person could support environmentalism in general, but not in the particular form of one bill or act. Similarly, attitudes toward public policy activities will differ according to the personality of the participant and the situation he is confronting.

Fishbein's definition touches upon the fact that the attitude concept is difficult to operationalize. The researcher is limited in the number of variables he can study. The variables which he does choose to study may have their effects mitigated or strengthened by the unacknowledged or unknown presence of other variables. While this study focuses on three variables and their effects on public policy behavior, as described in the section on the behavior model,

it is necessary to note that other variables in addition to those studied may have influenced the results. The assumption for the study was that the three variables studied would, for the sample as a whole, dominate the determination of attitudes toward public policy. However, for specific individuals other variables may have been more relevant in forming their attitudes. The assumption in the study was that such variables were a random occurrence and the effects of the variables would cancel each other out.

Since no observations were made to determine the correlation between public policy attitudes and behaviors in policy-oriented situations, a definition of attitudes as responses to stimuli or a classification of attitudes as verbal and nonverbal, are not very fruitful for this study. However, attitudes toward public policy activities can be regarded as ego-involving since many of the activities require leadership behavior and/or personal involvement in a cause. Consequently, the items of the questionnaires used to measure attitudes toward such activities will be interpreted in an ego-involving context, to reflect the influence of the self-concept in performance of public policy activities.

When pared down to its essential idea, however, the behavior model describes how much people like or don't like public policy and related activities, a point which will be elaborated on in the discussion of the behavior model. The preferred definition of the attitude concept will be that used by Edwards:

> We shall define an attitude as *the degree of positive or negative affect* associated with some psychological object . . .[i.e.,] any symbol, phrase, slogan, person, institution, ideal, or idea towards which people can differ with respect to positive or negative affect.[6]

This definition most closely reflects the emphasis of the behavior model, and it is not inconsistent with the aspects of previous definitions which are relevant to the study.

Attitudes as Determinants of Behavior

The controversy over whether attitudes predict behavior is not only affected by the initial definition of attitude, but also by the nature of the situation exposing the attitude. Tittle and Hill suggest that

> The individual encountering a situation which is characterized by unfamiliar contingencies is not likely to have a well-structured attitudinal organization relevant to behavior in that situation.[7]

Consequently, unless attitude measures focus on repetitive and familiar activities of an individual, they will not provide much insight into behavior. This study avoids this pitfall by directing several questions toward the most common means of interacting with public policy issues, i.e., discussions, asking questions, etc. Investigation of habitual activities such as asking questions or engaging in discussions, etc., is a means of overcoming the possible objection that verbal attitudes only indicate preference and not commitment.[8]

Rokeach emphasizes that "at least two attitudes are required to make a correct prediction of behavior": the attitude toward the object (i.e., person, group, institution, or issue) and the attitude toward the situation, event, or activity.[9] Behavior may represent the interaction of several attitudes. In addition, the norms characterizing a situation may dominate the attitudes brought to it. The actor may not always *know* how to act consistently in a given situation.

> Informal evidence indicates that people sometimes intentionally act in an attitude-inconsistent manner. Such behavior. . .may have its basis in either personal curiosity or attempt to achieve novelty in an unstimulating environment. Inconsistent behavior may also be a primary means by which individuals test themselves and others.[10]

In general, the causes of attitude-behavior inconsistency appear to act as constraints upon the interpretation of results from research. Rokeach's comments suggest that a questionnaire on attitudes toward public policy should cover feelings toward public policy itself, and feelings toward situations involving public policy activities.

> Fishbein. . .has noted that researchers have often measured attitudes toward broad classes of people (e.g., Negroes) and related them to specific behavior (e.g., cooperating with a particular Negro on a given task), generally finding little relationship between the two kinds of responses. He has suggested that the relationship between attitudes and behaviors should be stronger when investigators measure attitudes toward the specific behavior of interest.[11]

> On the assumption that response to an item is likely to be more specific if the item contains some self-reference. . .[T]he larger the number of self-referent items included in the scale, the more specific is response likely to be. . .Items containing the personal pronouns 'I' or 'me' were considered to be self-referent in content.[12]

A questionnaire on public policy attitudes should then have questions which refer specifically to *public policy* activities and discussion behavior, and which contain self-referent items.

The Behavior Model

The persons entering the public policy workshops offered through PACE will differ both in experience with community leadership and knowledge of public policy. Relevant variables which would have an impact on their potential and actual participation in the workshops are their comfort with public policy as a topic, knowledge of public

policy issues, and their satisfaction with that knowledge. This section describes these variables and items used to assess them.

Definition of the Variables

The first variable is termed "comfort", but another name would be "confidence." Comfort is defined as a willingness to confront unfamiliar issues and situations. The second variable is "knowledge satisfaction" and covers how adequate one believes one's public policy knowledge to be. The third variable used in the model is knowledge of general public policy issues.

General public policy issues are those topics which are frequently covered in the media, such as the state of the economy and school funding. This definition also covers public policy material which is used in everyday living. A basic and elementary knowledge of Social Security or the federal income tax would be included in this category. For the Extension staff survey, this definition was expanded to include public policy information of a more specialized nature, such as knowledge of concepts like elasticity or opportunity cost. The surveyed Extension staff was subjected to a more rigorous definition of "general public policy" because their work could *require* knowledge of public policy issues. In addition, they might have opportunities to attend special seminars or workshops on public policy in the course of their work assignments. Thus, the definition of public policy used for the College Week participants might be too limited and simplistic.

Definition of the Persons Described by the Model

Uncomfortable persons were expected to be dissatisfied with their level of public policy knowledge. Gaps in their knowledge will bother them and will lead to avoidance of situations where these gaps might be displayed. Although uncomfortable people would like to know more about public policy, they will not know where or how to begin. Consequently, they will not clearly value public policy nor feel their knowledge has benefited their lives.

A person who is indifferent or neutral toward public policy activities will be satisfied with her knowledge. The thought of participating in policy-related activities does not disturb nor excite her. Her knowledge of public policy is likewise neither very good nor very poor. Public policy workshops will probably have little attraction for this kind of person.

A person who is uncomfortable with public policy is not afraid of it. She will not be overwhelmed nor confused by public policy issues because she is not focusing on her self-consciousness but instead on opportunities to enhance her knowledge or satisfy her curiosity.

Arguments can be made in either direction as to whether a person who is comfortable with public policy and receptive to opportunities to broaden his knowledge is, in fact, satisfied with the knowledge he has acquired. A person who liked public policy might easily be intrigued by it and want to know more. In that case, the person would be dissatisfied with his knowledge. Conversely, this hypothetical comfortable person might believe he had a good command of public policy issues because he had utilized opportunities to increase

his knowledge. He would be happy or satisfied with the knowledge he had already acquired, but he would still want to know more. An analogy might clarify the description. A person may be proud of a cooking ability, yet be dissatisfied with the fact that he or she did not know how to cook gourmet meals. In a general sense, therefore, a comfortable person could be considered dissatisfied with his knowledge of public policy. In a specific sense, especially when concrete issues are considered, that same person might be satisfied with his knowledge. While it is not clear how a comfortable person would perceive a question on satisfaction provided by his knowledge, the position for this study will be that comfortable persons will tend to be satisfied with their knowledge. This position emphasizes a theoretical dichotomy, however shaky, between uncomfortable and comfortable persons, as uncomfortable persons were expected to be dissatisfied with their knowledge.

A similar problem arose when understanding of public policy issues was considered. The position that uncomfortable persons would find public policy more interesting if they understood it better may also be true for comfortable persons. The hypothesis covering this case is stated mainly in terms of uncomfortable persons, but the test of this hypothesis will also incorporate the responses of comfortable persons to determine their position on this issue. This hypothesis is the exception to all of the other hypotheses of the behavior model in that understanding of public policy issues rather than comfort with them is the independent variable.

Another problem is the fact that the scope of the term "general public policy" used for purposes of this study might not correspond to that existing in the minds of the respondents. While the researcher

was concerned with a definition of "general public policy" covering everyday life, and considered knowledge satisfaction from that context, those being surveyed may have had in mind a more rigorous standard by which to compare themselves. The assumption for this study was that the standard of comparison which would be used by the respondents would be public policy knowledge on a general, fairly elementary, everyday level.

Relationship Among the Variables

The "comfort" felt by a comfortable person can arise from an inner self-confidence which he brings to many areas of his life, of which public policy can be only one example. In this case, comfort would be an independent variable upon which knowledge satisfaction and knowledge of public policy issues would depend. This position is consistent with a definition of "public policy issues" limited to everyday life and concerns. A person who is self-confident does not necessarily pursue specialized knowledge in public policy (as opposed to some other field) simply because he is comfortable. Knowledge satisfaction would depend on comfort because comfort was necessary to obtain knowledge.

An alternative version of the model would make knowledge of public policy issues the independent variable, with comfort and knowledge satisfaction the dependent variables. The rationale for this procedure would be that if a person had already mastered some areas of public policy, her previous success would influence her expectations when working with unfamiliar areas. As knowledge increased, comfort would increase. Knowledge satisfaction is again a difficult variable to work with within the context of the model.

Given the preferred limited definition of "general public policy" topics, however, knowledge could replace comfort as the independent variable without substantially altering the interpretation of knowledge satisfaction. High knowledge would imply high satisfaction. Since this model was not the version studied, this implication will not be evaluated.

The implications for a program of public policy education will differ according to whether knowledge or comfort is the independent variable. If comfort is autonomous, program effects should be directed toward increasing the leadership skills and self-confidence of participants. If knowledge is responsible for producing comfort, emphasis should be placed on concentrated exposure to a wide variety of public policy topics to the exclusion of practice in making presentations or leading discussions, for example. Probably the most realistic specification of the model is one which recognizes that comfort and knowledge of public policy issues are, at least in some cases, mutually dependent. Comfort influences knowledge and knowledge influences comfort. The assumption for this study was that comfort or confidence would be a dominant variable in influencing PACE workshop participation. This assumption was made because there are probably more confident persons in the general population than persons who have very much knowledge about public policy. An assumption which took knowledge to be the dominant variable would imply less potential participation in PACE workshops than an assumption specifying comfort as dominant.

The hypotheses of the behavior model which follow are listed from general to specific.

Hypotheses of the Behavior Model

As comfort with public policy increases, a person's:

1. esteem for public policy will increase.
2. enjoyment of public policy discussions will increase.
3. feeling of being overwhelmed by public policy will decrease.
4. feeling of confusion with public policy will decrease.
5. judgment of the amount of public policy knowledge possessed increases.
6. feeling of adequacy of public policy knowledge increases.
7. fear of revealing ignorance about public policy decreases.
8. fear of asking questions about public policy decreases.
9. satisfaction with his knowledge of general public policy topics increases.
10. familiarity with source materials in public policy increases.
11. belief that public policy topics are not especially difficult topics to speak on increases.
12. belief that public policy presentations need not be restricted to highly skilled specialists increases.
13. estimate of preparation time needed before he or she can feel comfortable making public policy presentations decreases.
14. As understanding of public policy increases, interest in public policy increases, especially for uncomfortable persons.

The results of the tests of these hypotheses will be presented in Chapter 3 with a discussion of the implications of the results for a program of public policy education. Several results are possible. If respondents are very comfortable with public policy issues, but are dissatisfied with their knowledge, a challenging and sophisticated program would be needed. If respondents lack familiarity with public policy, then a more factual program would be appropriate. An alternative result could be that respondents do not

have strong feelings with respect to public policy, and their present sources of knowledge are sufficient, neither challenging nor inadequate. Respondents could demonstrate very little knowledge of public policy and be both uncomfortable and dissatisfied, which implies a more general PACE format than a situation where respondents were neutral in their feelings toward public policy and satisfied with a low level of knowledge. Alternatively, respondents could be highly knowledgeable despite a lack of comfort with public policy topics, and a dissatisfaction with their knowledge.

Summary

This chapter has noted some reasons why public policy as a field of study is complementary to traditional agricultural economics. The theoretical literature on attitudes as they influence behavior was briefly summarized to provide direction for the format of the questionnaires to be used in the study. Hypotheses were presented on attitudes toward public policy and their implications for behavior in policy-oriented situations. Grouped together, these hypotheses form the "behavior model" which is the theoretical framework for the study.

ENDNOTES

1. Melvin L. De Fleur and Frank R. Westie, "Attitude as a Scientific Concept," in *The Consistency Controversy*, ed. Allen E. Liska (New York: John Wiley & Sons, 1975), p. 38.

2. Howard J. Erlich, "Attitudes, Behavior, and the Intervening Variables," in *The Consistency Controversy*, ed. Allen E. Liska (New York: John Wiley & Sons, 1975), p. 135.

3. *Ibid.*, p. 135.

4. Charles A. Kiesler, Barry E. Collins, Norman Miller, *Attitude Change*, (New York: John Wiley & Sons, 1969), p. 2.

5. Allen E. Liska, "Introduction," in *The Consistency Controversy*, ed. Allen E. Liska (New York: John Wiley & Sons, 1975), p. 17.

6. Allen L. Edwards, *Techniques of Attitude Scale Construction*, (New York: Appleton-Century-Crofts, Inc., 1957), p. 2.

7. Charles R. Tittle and Richard J. Hill, "Attitude Measurement and Prediction of Behavior: An Evaluation of Conditions and Measurement Techniques," in *The Consistency Controversy*, ed. Allen E. Liska (New York: John Wiley & Sons, 1975), p. 110.

8. James M. Fendrich, "A Study of Association Among Verbal Attitudes, Commitment, and Overt Behavior in Different Experimental Situations," in *The Consistency Controversy*, ed. Allen E. Liska (New York: John Wiley & Sons, 1975), p. 97.

9. Erlich, p. 136.

10. Erlich, p. 140.

11. Allen W. Wicker and Richard J. Pomazal, "The Relationship Between Attitudes and Behavior as a Function of Specificity of Attitude Object and Presence of a Significant Person During Assessment Conditions," in *The Consistency Controversy*, ed. Allen E. Liska (New York: John Wiley & Sons, 1975), p. 123.

12. Tittle and Hill, p. 119.

CHAPTER 2

Introduction

This chapter describes the questionnaire format used to test the behavior model, administration of the questionnaires, and the respondents to whom they were administered. The chapter will begin with a description of the questionnaire design. A description of College Week and the College Week and Extension samples used for the study will follow. The concluding section will describe the administration of the questionnaires for the two surveys.

Design of the Index of Confidence

The index of confidence section of the questionnaire was based on the behavior model presented in Chapter 1. Eleven questions focused on the participant's facility or comfort with public policy issues. Five questions dealt with their degree of satisfaction with their present knowledge. Seven questions for the College Week sample, and eighteen questions for the Extension sample, tested familiarity and knowledge of various current national and local public policy issues. Appendices A and C contain the two versions of the questionnaire. Most questions devoted to assessing the participant's comfort represented an effort to cover as many situations as possible where a lack of comfort would preclude leadership or self-confident behavior in dealing with public policy. The knowledge test questions were intended to represent a broad range

of public policy topics. The assumption was that anyone who had "normal" contact with sources of public policy information such as weekly news magazines, newspapers, or television broadcasts should have no difficulty in determining the correct answers. Another assumption was that the comfort questions did indeed tap the participant's comfort with public policy and not something else. The same assumption was made for the knowledge satisfaction and knowledge test questions. These assumptions would later be tested by a factor analysis of the responses to the questions to see if responses clustered into three distinct groups.

The method of summated ratings or Lickert-type scaling was chosen as the scaling procedure. This was essentially an *ad hoc* decision. At the time the questionnaire was developed, there was insufficient time to consider alternate methods of scaling and still be able to distribute the finished instrument to the College Week instructors. However, even with an extension of time, it is likely that Lickert scaling would have been the preferred method. One reason is the ease of response: respondents are given a small number of alternative answers from which to choose, rather than formulating a unique response on their own. While less time is needed to complete the questionnaire, however, there is a loss in precision from the use of predetermined categories of response. Most instructors were concerned about the length of time needed to complete the questionnaires. This, and the fact that Lickert scaling is commonly used in the social sciences, which might make it familiar to the respondents, excluded competing methods.

Tittle and Hill compared several methods of attitude measurement. They concluded that:

> In addition to the advantage of greater reliability and specificity, the Lickert technique also seems to have the particular advantage of providing for the operation of an intensity factor. . .an ordering of subjects by the summated ratings procedure is not only a ranking on a favorable-unfavorable dimension, but a ranking influenced by how strongly the subject feels. A respondent who holds a favorable attitude, but one who does not feel intensely about it will consequently be ranked lower than one who holds a favorable attitude and supports that attitude with intense feelings.[1]

They also concluded that the attitude measures which utilized Lickert scaling were the best predictors of behavior.

The statements chosen for the Lickert technique by Tittle and Hill resulted from a Q-sort[2] which, in its sophistication, must be contrasted with the method used in this study: formulation of the items by the author. Of course, this implies that the reliability results from this study will not be as impressive as the split-half reliability coefficient of .95 reported by Tittle and Hill. As noted in Chapter 1, attitude measures which refer to specific activities of an individual and which are self-referent, provide the strongest predictive link to subsequent behavior. Consequently, within the time constraints operating in the formulation of the instrument, the summated ratings technique (as utilized) was believed to be the best method available with which to formulate the questions to test the behavior model.

In answering the questions, respondents chose among five categories of agreement: "completely agree", "agree to a great extent", "agree to some extent", "agree to a little extent", "agree not at all." The distances between each degree of agreement are not assumed to be equal. Given the choice of responses, respondents may have felt some confusion when answering the knowledge test questions. However, to offer them an "agree-disagree-don't know" format for

those questions alone would have necessitated the creation of a separate section within the questionnaire. It was assumed that such an action would increase the probability that respondents would not answer the knowledge test questions.

The instruction for the index of confidence gave a very general definition of public policy (i.e., "the things which affect the quality and quantity of our lives"). This was done to encourage the respondent to fall back upon his or her own definition of public policy, especially in answering later sections of the questionnaire. There was some probability that a respondent would answer the questionnaire without being entirely sure what the term "public policy" meant. However, if the person, although confused, proceeded through the questionnaire, the knowledge test questions would be examples of public policy issues and therefore serve as a learning device. Furthermore, at each administration, someone was available to give a clarification of the term if necessary. Presumably, if a respondent was *very* frustrated and did not ask for assistance, he would turn in a blank or partially completed (i.e., only one or two questions answered) questionnaire which would have removed him from the sample.

Design of the Following Sections

After completing the index of confidence, the respondents were asked to indicate the limitations on their acquisitions of public policy knowledge. They either supplied their own reasons or checked the applicable reasons listed: time factors, lack of interest and/or lack of understanding. Three open-ended questions were used in the next section to avoid suggesting particular answers to respondents. These questions asked respondents to list the public policy topics of

interest to them, to indicate what community programs or services they desired, and to name their favorite public policy-related Cooperative Extension program given within the last year.

Demographic characteristics were requested in the last section: residence area, age group, educational background, and work status (part time, full time, etc.). This information was viewed as the least critical to the study, which accounts for its place in the questionnaire.

In contrast, the index of confidence questions were placed first in the questionnaire because they demanded minimum thought and articulation of response. The responses to these cognitive-based questions were considered the most crucial for achieving the goals of the study. The other questions sought peripheral information, affective or demographic. Public policy is such a diversified area that the affective components of attitudes (i.e., the public policy topics most preferred by respondents) were viewed as highly changeable, strongly dependent on the current world or community situation. The cognitive or belief components of attitudes toward public policy, such as the index of confidence items, were held to be more enduring and, therefore, more important.

College Week and the College Week Sample

College Week is a Cooperative Extension program which has been in operation since 1927. College Week was originally called "short-courses" and was attended by persons who stayed in homes in East Lansing. These "short-courses" were designed to aid housewives, the predominant role of women at that time. Typical subjects were child-rearing, gardening, sewing, family recreation, health, home canning,

and the use of egg money from the family chicken. Public policy topics were not added until 1970. As the audiences became younger and less traditional, public policy topics became more popular. The program areas which are currently most popular are personal enrichment, family-oriented courses, and community leadership.

Another recent trend is increased participation from citizens in farming areas and suburbs, who compete in numbers with persons from Detroit, Grand Rapids, and Flint. This heterogeneity is consistent with the purposes of College Week, as much of the learning which occurs is often due to the mix of persons attending the programs.

Three public policy-oriented courses and one non-public policy course ("Assertiveness Training") were surveyed. However, the enrollment of the "Assertiveness Training" course was approximately equal to that of the public policy courses so that analysis done to contrast the responses of the two groups of classes would not be impaired. As there was concern about disrupting the College Week courses with the administration of the questionnaires, the pre-administration goal was limited to achieving about 200 responses, which was sufficient for meaningful statistical analysis.

Administration of the Questionnaire to the College Week Sample

All questionnaires were distributed on the days of the course most convenient to the instructor. This situation was responsible for the variability in administration.

The questionnaire was administered to the "Assertiveness Training" class. The students in the class were told the study was in conjunction with the Cooperative Extension Service. Some respondents asked

for a definition of public policy beyond that written on the questionnaire. They were answered in as brief a manner as possible. Only one person seemed to need a definition using labels of actual public policy topics such as consumerism or land-use. Approximately three persons commented that they "didn't understand what they were doing" as they handed in the questionnaire.

The questionnaire was also administered to the public policy class on "Current Legislation Affecting Michigan Children and Families." There was some preliminary discussion of the questions on the questionnaire before they were answered. Completed questionnaires were turned in immediately.

"Can We Have the Best of Both Worlds?" was the other class oriented toward public policy to which the questionnaire was given. The instructor for the class distributed the questionnaires and was not available for details on the circumstances surrounding administration. In the class, "Coffee Klatch Politics", questionnaires were distributed by the course instructor and returned the next day. The instructors could not recall the nature of the comments which were made during the administration of the questionnaire.

A total of 125 completed questionnaires were turned in. Of these, 66 were from "Assertiveness Training", 13 from "Current Legislation", 22 from "Best of Both Worlds", and 24 from "Coffee Klatch Politics."

The Extension Sample

The choice of the Extension sample was influenced by the need to determine the public policy attitudes of Extension personnel who were most likely to influence or be influenced by project PACE.

Questionnaires were consequently directed toward Family Living Agents and County Extension Directors throughout Michigan.

Administration of the Questionnaire to the Extension Sample

As previously noted in the chapter, the questionnaire sent to the Extension sample contained eleven additional knowledge test questions. The purpose of these additional questions was to subject the Extension sample to a more rigorous definition of "general public policy" than used for College Week, since Extension work could require familiarity with public policy. In addition, since the Extension sample contained the potential PACE program leaders, as much information as possible on the extent of their public policy knowledge was considered desirable.

A copy of the expanded questionnaire and a cover letter explaining the purposes for the study were sent to all County Extension Directors and Family Living Agents. A copy of the cover letter is contained in Appendix B and the Extension questionnaire is contained in Appendix C. A return envelope was provided to facilitate the response.

Of 156 questionnaires sent out to 80 County Extension Directors and 76 Family Living Agents, 93 were returned. As the questionnaires were returned anonymously (per instructions), there are no figures on which group had the higher response rate. Anonymity of response was considered necessary to facilitate responses. To do otherwise might have biased answers, especially on the comfort questions, toward a more idealistic position than that which actually described the respondents. In addition, the focus of the study was more on

aggregate responses of as many individuals as possible than on evaluation of the performance of specific individuals.

A factor which may have reduced the response rate on the negative side was the fact that at the time the Extension sample received their questionnaires, many Extension conferences were being carried on.

The space on the questionnaire to be used for identifying current PACE participants was checked by only 14 persons, a number too small for meaningful statistical analysis. Consequently, the analysis of the results contained in Chapter 3 will make no distinction between PACE and non-PACE responses.

Summary

This chapter has described the format of the questionnaires used in the study, the assumptions behind the questions, and the potential advantages of Lickert scaling. A brief history of College Week was given prior to describing the classes selected for the study. The concluding section described the administration of the questionnaires to the College Week and Extension samples.

ENDNOTES

1. Charles R. Tittle and Richard J. Hill, "Attitude Measurement and Prediction of Behavior: An Evaluation of Conditions and Measurement Techniques," in *The Consistency Controversy*, ed. Allen E. Liska (New York: John Wiley & Sons, 1975), p. 119.

2. A Q-sort is performed when respondents are given a large number of statements pertaining to the topic being studied (i.e., public policy) and asked to sort the statements into a specified number of piles according to their judgment of the degree of favorableness or unfavorableness toward the topic which is reflected by the statement.

CHAPTER 3

Introduction

Results from the College Week survey and the Extension survey are reported in this chapter. The statistical analyses done on the data from the College Week and Extension surveys served three purposes. The first purpose was to provide information useful for the conduct of the PACE workshops. The demographic characteristics were used to create a "profile" of the College Week respondents. The extent of variability in the background characteristics of the College Week participants would indicate the extent to which their answers on the other items might be representative of the potential PACE clientele. For example, if most of the College Week respondents had college degrees, worked full time, lived in a city, and were 25 to 30 years of age, the survey results would be of limited value in inferring the public policy attitudes of potential PACE participants who did not possess these characteristics.

The responses to the index of confidence questions provide information on the extent of the College Week and Extension respondents' comfort and knowledge of public policy, as well as their satisfaction with that knowledge. An evaluation of the reliability of the instruments used in the study indicates to what extent the index of confidence results may have been influenced by measurement error. Crosstabulations were performed to determine

if the demographic variables were significantly related to comfort, knowledge, or knowledge satisfaction, and if the latter three variables significantly affected each other.

Finally, responses to the open-ended questions of the College Week questionnaire provided information on the public policy topics of most interest to respondents, their limitations on acquisition of public policy knowledge, and their favorite Cooperative Extension program of the past year.

The second purpose of the statistical analyses reported in this chapter is an evaluation of the usefulness of the two questionnaires used in the study as instruments to measure public policy attitudes. The determination of reliability, already mentioned, is one means of evaluation. An item analysis was also performed for both questionnaires to see how well each individual item contributed to the overall content of its respective questionnaire.

The third purpose of this chapter is an evaluation of the hypotheses of the behavior model. This is achieved through use of chi-squared tests of significance and a factor analysis.

The chapter will open with a description of the College Week respondents.

Demographic Characteristics of the College Week Sample

Area of residence: The majority of respondents lived on farms or in moderately sized towns or cities. The categories of very small town or very large city were the most infrequently checked.

Age group: Most of the respondents were in the 25-39 age group, but this classification did not dominate the sample. Persons from the 40-49 age group and the 50-59 age group were also numerous. There was some overlapping of the age categories given to respondents on the questionnaire due to a typographical error (i.e., one category was ages 25-39 and the other was 30-39), which may have created confusion among the respondents and made this question less useful than it otherwise would have been.

Educational background: Most respondents were classified as high school graduates, but this group was almost matched in number by respondents with some college or who were college graduates.

Work outside home: Over half the respondents did not work outside the home. The rest of the respondents were about evenly divided between those who worked part time and those with full-time positions.

Demographic Characteristics for Public Policy Classes

Area of residence: Three-fifths of the respondents were from a farm, rural non-farm, or town or village with less than 2,500 people. The rest of the respondents were fairly evenly distributed over the various categories of towns and cities, except for the largest city

classification. This latter category had the fewest number of respondents.

Age group: Most of the persons were in the 25-39 age group, with a few persons in their early twenties. The smallest number of persons were in the over 50 and under 20 categories.

Educational background: Very few persons were not either high school graduates, had some college, or were college graduates.

Work outside home: Almost two-thirds of the respondents did not work outside the home. The fewest number worked full time.

Demographic Characteristics for the Assertiveness Class

Area of residence: Most of the respondents lived in rural non-farm areas, a large town, or a small city. Farm, village, or very large city were the most infrequently checked categories. The Assertiveness Training class had a more urban composition than did the public policy classes.

Age group: All persons were 25 and over, with the largest number falling into the 25-39 category.

Educational background: Respondents were fairly evenly distributed across the high school graduate, some college, and college graduate categories. In the public policy classes, however, fewer persons were college graduates: 11 vs. 17 for Assertiveness Training.

Work outside home: The distribution of persons followed the same pattern as for the public policy classes, as most persons did

not work outside the home, and the least number of respondents worked full time.

The overall background of the College Week sample is sufficiently broad to use the results of the survey to generalize to future PACE workshop participants. Respondents were not concentrated into narrowly defined demographic groups, but covered a fairly broad spectrum of individuals, with one exception. The composition of the classes to which the questionnaire was administered was predominantly, if not totally, female, according to the informal report of the questionnaire administrators. While actual statistics were also not collected on the sex of the Extension respondents, names on memos enclosed with the completed questionnaires identified some respondents as male. Since the target audience of project PACE is women, and the PACE leaders are likely to be male or female, the sampling situation which resulted appears to have the advantage of duplicating potential PACE conditions.

The scoring procedure for the index of confidence section will be gone into in detail in the next section, in order to permit interpretations of the results other than those given in this study.

Scoring Procedure for the Comfort Questions

The comfort questions were graded according to six categories: very comfortable, comfortable, somewhat comfortable, moderately uncomfortable, uncomfortable, and missing. Each possible degree of agreement with an item, of which there were six (including "missing"), corresponded to one of the comfort categories. However, since the questions were worded such that agreeing "completely" to them did not always mean the respondent was "very comfortable", recoding of

the responses was necessary to establish the same polarity for all items. For example, a response of "agree completely" indicated by a circled "1" on the questionnaire would be a "very comfortable" response for the following item: I enjoy discussions of public policy. However, to circle "1" for the item, "I find public policy confusing", would indicate the respondent was uncomfortable with public policy. The appropriate "very comfortable" response would have been a circled "5" to express disagreement with the item.

The recoding standard was that all "very comfortable" responses should be coded a numerical value of "5." The response of "5" to the item "I find public policy confusing" would not need to be recoded. The comfort questions and the corresponding grading are shown in the first part of Table 1. Table 2 shows the responses in percentages corresponding to each degree of agreement made by the College Week sample (top figure) and the Extension sample (bottom figure). Underneath the Extension percentage are letters corresponding to the grading of that particular response. The code for Table 2 is: VC = a very comfortable response, C = comfortable, SC = somewhat comfortable, MU = moderately uncomfortable, and U = uncomfortable.

For example, consider the first item in Table 1, "I would feel very comfortable discussing public policy with a group of acquaintances." For this item, "agree completely" was a very comfortable response, "agree to a great extent" was a comfortable response, "agree to some extent" was a somewhat comfortable response, "agree to a little extent" was a moderately uncomfortable response, and "agree not at all" was an uncomfortable response. The "somewhat comfortable" responses were considered "neutral" because they represented the middle of the comfort continuum.

Table 1

Scoring of the Index of Confidence

Part 1: Scoring Correctness of Comfort Questions
(5 = Very Comfortable, 4 = Comfortable, 3 = Neutral,
2 = Moderately Uncomfortable, and 1 = Uncomfortable)

	Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at All
1. I would feel very comfortable discussing public policy with a group of acquaintances.	5	4	3	2	1
2. Public policy changes so rapidly it is hopeless to even begin to keep up with it.	1	2	3	4	5
3. I consider my knowledge of public policy better than the average person's.	5	4	3	2	1
4. Giving speeches or presentations on public policy should be reserved for highly skilled specialists.	1	2	3	4	5
5. I enjoy discussions of public policy.	5	4	3	2	1
6. I avoid participating in discussions of public policy because I am afraid of revealing my ignorance.	1	2	3	4	5
7. Giving speeches or presentations on public policy is no more difficult than for anything else.	5	4	3	2	1
8. I would need very much preparation before I could feel comfortable making presentations on public policy.	1	2	3	4	5
9. I am sometimes afraid to ask questions about public policy because I feel I should already know the answer.	1	2	3	4	5

Table 1 (continued)

	Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at All
10. I find public policy confusing.	1	2	3	4	5
11. If I did not know the answer to someone's question on public policy, I would know where to find it.	5	4	3	2	1

Part 2: Scoring Correctness of Knowledge Satisfaction Questions
(5 = Very Satisfied, 4 = Satisfied, 3 = Somewhat Satisfied, 2 = Moderately Unsatisfied, and 1 = Unsatisfied)

	Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at All
1. I do not know as much about public policy as I would like to know.	1	2	3	4	5
2. I would find public policy more interesting if I understood it better.	1	2	3	4	5
3. My knowledge of public policy has been adequate for my needs.	5	4	3	2	1
4. My knowledge of public policy has definitely enriched my life.	5	4	3	2	1
5. I am satisfied with my knowledge of public policy.	5	4	3	2	1

Table 1 (continued)

Part 3: Scoring Correctness of the Knowledge Test Questions
(5 = Correct, 2 = Slightly Incorrect, and 1 = Incorrect)

	Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at All
1. Michigan public schools receive most of their financial resources from millage voted by residents of the school district.	1	2	5	5	5
2. Michigan's economy has too many jobs and too few people available to fill them.	1	2	2	2	5
3. Most of the zoning decisions are currently made by the state government.	1	2	2	5	5
4. The major producers of food in Michigan are corporate farms.	1	2	2	2	5
5. The Federal government through Conrail is taking over all Michigan railroad lines.	1	2	2	2	5
6. Social Security is financed from funds received from the Federal income tax.	1	2	2	2	5
7. Over 50% of the workers in the United States belong to labor unions.	1	2	2	2	5
8. When land is taken under eminent domain, "just compensation" to the owner is usually the value of the property assessed for tax purposes.	1	1	2	2	5
9. The age of the average American has been decreasing over the last five years.	1	2	2	2	5
10. The Soviet Union is the world's major producer and exporter of grain.	1	1	2	2	5

Table 1 (continued)

	Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at All
11. Disease is the single largest contributor to the high death rate of children in developing countries.	1	2	2	2	5
12. Many persons seek employment because the wages they expect to receive are greater than the value of alternative uses of their time.	5	5	2	1	1
13. Zoning is an example of the police power to direct land use.	5	2	2	1	1
14. Food supply and demand are elastic.	1	1	1	2	5
15. One of the ways for government to determine appropriate antirecession expenditures is to ask businessmen to indicate their production plans for the coming year.	5	5	2	2	1
16. Under the Social Security program, the taxes collected from persons presently working are used to finance those who are currently retired.	5	5	2	2	1
17. Approximately 25% of the cost of processed food is due to processing and distribution costs.	1	2	2	2	5

Scoring of the Knowledge Satisfaction Questions

Like the comfort items, the knowledge satisfaction items were graded according to six categories: very satisfied, satisfied, somewhat satisfied, moderately unsatisfied, unsatisfied, and missing. For each item, the different degrees of agreement corresponded to one of the knowledge satisfaction categories. The grading of the knowledge satisfaction questions is shown in the second part of Table 1. The percentage of responses received for each degree of agreement are shown in the second part of Table 2. Under the figure for the Extension percentage are letters corresponding to the grading of the question. The code for the knowledge satisfaction questions is: VS = very satisfied, S = satisfied, SS = somewhat satisfied, MUS = moderately unsatisfied, and US = unsatisfied. The "somewhat satisfied" responses were considered neutral because they represented the middle of the knowledge satisfaction continuum.

Scoring of the Knowledge Test Questions

Knowledge test questions 1-7 as shown in the third part of Table 1 and Table 2 were used on both the Extension and College Week questionnaires. Questions 8-17 appeared only on the Extension questionnaire. Scoring of the knowledge test questions was difficult due to the ordinal scaling procedure. In particular, the category "agree to some extent" created difficulties when determining the correct response for an item. Different viewpoints on acceptable correct responses would change the response percentages listed in Table 2. Missing responses were always treated as absolutely incorrect. They are listed separately because, if nothing else, the variability of their frequency suggests that respondents had an

Table 2

Responses to Questions Used to Construct the Confidence Index (in percentages)*

Comfort Questions		Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at All	Missing
1. I would feel comfortable discussing public policy with a group of acquaintances.	C.W.	28.0	21.6	33.6	10.4	4.0	2.4
	EXT.	36.6 (VC)	23.0 (C)	25.8 (SC)	9.7 (MU)	4.3 (U)	0
2. Public policy changes so rapidly it is hopeless to even begin to keep up with it.	C.W.	4.0	17.6	38.4	15.2	18.4	6.4
	EXT.	1.1 (U)	4.3 (MU)	30.1 (SC)	32.3 (C)	30.1 (VC)	2.2
3. I consider my knowledge of public policy better than the average person's.	C.W.	1.6	11.2	30.4	27.2	26.4	3.2
	EXT.	14.0 (VC)	32.3 (C)	36.6 (SC)	9.7 (MU)	6.5 (U)	1.1
4. Giving speeches or presentations on public policy should be reserved for highly skilled specialists.	C.W.	11.2	9.6	32.0	9.6	34.4	3.2
	EXT.	5.4 (U)	14.0 (MU)	39.8 (SC)	28.0 (C)	12.9 (VC)	0
5. I enjoy discussions of public policy	C.W.	26.4	23.2	30.4	10.4	4.8	4.8
	EXT.	15.1 (VC)	43.0 (C)	21.5 (SC)	14.0 (MU)	5.4 (U)	1.1
6. I avoid participating in discussions of public policy because I am afraid of revealing my ignorance.	C.W.	9.6	12.0	32.0	24.8	20.0	1.6
	EXT.	1.1 (U)	5.4 (MU)	23.7 (SC)	35.5 (C)	34.4 (VC)	0

Table 2 (continued)

Comfort Questions		Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at All	Missing
7. Giving speeches or presentations on public policy is no more difficult than for anything else.	C.W.	9.6	16.8	32.8	16.8	18.4	5.6
	EXT.	6.5 (VC)	17.2 (C)	26.9 (SC)	32.3 (MU)	15.1 (U)	2.2
8. I would need very much preparation before I could feel comfortable making presentations on public policy.	C.W.	18.4	16.8	32.8	16.8	9.6	2.4
	EXT.	19.4 (U)	17.2 (MU)	44.1 (SC)	15.1 (C)	4.3 (VC)	0
9. I am sometimes afraid to ask questions about public policy because I am afraid of revealing my ignorance.	C.W.	9.6	16.8	27.2	16.0	27.2	3.2
	EXT.	2.2 (U)	6.5 (MU)	25.8 (SC)	34.4 (C)	30.1 (VC)	1.1
10. I find public policy confusing.	C.W.	2.0	15.2	43.2	12.0	5.6	4.0
	EXT.	6.5 (U)	15.1 (MU)	39.8 (SC)	24.7 (C)	11.8 (VC)	2.2
11. If I did not know the answer to someone's question on public policy, I would know where to find it.	C.W.	11.2	9.6	35.2	22.4	18.4	3.2
	EXT.	8.6 (VC)	52.7 (C)	23.7 (SC)	8.6 (MU)	5.4 (U)	1.1

Table 2 (continued)

Knowledge Satisfaction Questions		Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at All	Missing
1. I do not know as much about public policy as I would like to know.	C.W.	18.4	23.2	36.0	12.0	5.6	4.8
	EXT.	12.9 (US)	29.0 (MUS)	39.8 (SS)	12.9 (S)	4.3 (VS)	1.1
2 I would find public policy more interesting if I understood it better.	C.W.	28.8	29.6	30.4	4.8	2.4	4.0
	EXT.	12.9 (US)	29.0 (MUS)	39.8 (SS)	12.9 (S)	4.3 (VS)	1.1
3. My knowledge of public policy has been adequate for my needs.	C.W.	1.6	12.0	29.0	26.4	28.0	2.4
	EXT.	3.2 (VS)	17.2 (S)	39.8 (SS)	25.8 (MUS)	12.9 (US)	1.1
4. My knowledge of public policy has definitely enriched my life.	C.W.	6.4	20.8	40.8	15.2	8.0	8.8
	EXT.	14.0 (VS)	24.7 (S)	34.4 (SS)	17.2 (MUS)	5.4 (US)	4.3
5. I am satisfied with my knowledge of public policy.	C.W.	.8	3.2	16.8	15.2	63.2	.8
	EXT.	1.1 (VS)	5.4 (S)	21.5 (SS)	26.9 (MUS)	45.2 (US)	0.0

Table 2 (continued)

Knowledge Test Questions		Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at All	Missing
1. Michigan public schools receive most of their financial resources from millage voted by residents of the school district.	C.W.	8.0	46.4	20.0	8.8	11.2	5.6
	EXT.	11.8 (I)	29.0 (SI)	15.1 (C)	17.2 (C)	23.7 (C)	3.2
2. Michigan's economy has too many jobs and too few people available to fill them.	C.W.	.8	7.2	9.6	11.2	67.2	4.0
	EXT.	1.1 (I)	1.1 (SI)	3.2 (SI)	7.5 (SI)	87.1 (C)	0.0
3. Most of the zoning decisions are currently made by the state government.	C.W.	1.6	8.0	18.4	28.0	35.2	8.8
	EXT.	0.0 (I)	6.5 (SI)	7.5 (SI)	28.0 (C)	55.9 (C)	2.2
4. The major producers of food in Michigan are corporate farms.	C.W.	.8	12.8	20.8	16.0	35.2	14.4
	EXT.	2.2 (I)	7.5 (SI)	5.4 (SI)	9.7 (SI)	71.0 (C)	4.3
5. The Federal government through Conrail is taking over all Michigan railroad lines.	C.W.	2.4	12.0	17.6	12.0	32.8	23.2
	EXT.	0.0 (I)	3.2 (SI)	8.6 (SI)	18.3 (SI)	54.8 (C)	1.1
6. Social Security is financed from funds received from the Federal income tax.	C.W.	11.2	8.8	3.2	4.8	64.8	7.2
	EXT.	3.2 (I)	1.1 (SI)	4.3 (SI)	2.2 (SI)	88.2 (C)	1.1

Table 2 (continued)

Knowledge Test Questions		Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at All	Missing
7. Over 50% of the workers in the United States belong to labor unions.	C.W. EXT.	28.8 11.8 (I)	17.6 17.2 (SI)	10.4 17.2 (SI)	4.8 11.8 (SI)	20.8 31.2 (C)	17.6 1.1
8. When land is taken under eminent domain, "just compensation" to the owner is usually the value of the property assessed for tax purposes.	EXT.	2.2 (I)	16.1 (I)	25.8 (SI)	20.4 (SI)	30.1 (C)	5.4
9. The age of the average American has been decreasing over the last five years.	EXT.	5.4 (I)	4.3 (SI)	6.5 (SI)	4.3 (SI)	74.2 (C)	5.4
10. The Soviet Union is the world's major producer and exporter of grain.	EXT.	1.1 (I)	2.2 (I)	7.5 (SI)	7.5 (SI)	75.3 (C)	1.1
11. Disease is the single largest contributor to the high death rate of children in developing countries.	EXT.	7.5 (I)	21.5 (SI)	7.5 (SI)	21.5 (SI)	36.6 (C)	5.4

Table 2 (continued)

Knowledge Test Questions		Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at all	Missing
12. Many persons seek employment because the wages they expect to receive are greater than the value of alternative uses of their time.	EXT.	9.7 (C)	25.8 (C)	30.1 (SI)	18.3 (I)	9.7 (I)	6.5
13. Zoning is an example of the police power to direct land-use.	EXT.	7.5 (C)	16.1 (SI)	10.8 (SI)	8.6 (I)	50.5 (I)	6.5
14. Food supply and demand are elastic.	EXT.	10.8 (I)	25.8 (I)	19.4 (I)	18.3 (SI)	22.6 (C)	3.2
15. One of the ways for government to determine appropriate antirecession expenditures is to ask businessmen to indicate their production plans for the coming year.	EXT.	3.2 (C)	10.8 (C)	39.8 (SI)	25.8 (SI)	14.0 (I)	6.5
16. Under the Social Security program the taxes collected from persons presently working are used to finance those who are currently retired.	EXT.	40.9 (C)	39.8 (C)	11.8 (SI)	3.2 (SI)	2.2 (I)	2.2

Table 2 (continued)

Knowledge Test Questions		Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at All	Missing
17. Approximately 25% of the cost of processed food is due to processing and distribution costs.	EXT.	21.5 (I)	30.1 (SI)	14.0 (SI)	8.6 (SI)	20.4 (C)	5.4

Other		Agree Completely	Agree to a Great Extent	Agree to Some Extent	Agree to a Little Extent	Agree Not at All	Missing
Any move toward formulation of a national plan to help stabilize and control the economy would represent a move toward too much interference by government in the lives of private citizens.	EXT.	8.6	15.1	41.9	21.5	9.7	3.3

*C.W. - College Week responses (N = 125).
EXT. - Extension responses (N = 93).

easier time guessing at the answers to some questions than others. Those that were too difficult were abandoned. The grading of the knowledge test questions appears under the Extension response figures in Table 2. Three codes are used: C = correct, I = incorrect, and SI = slightly incorrect.

The question listed under the "other" section in Table 2 was not scored because it taps a respondent's political values. This question was given only to the Extension sample, and it represented an effort to surmise the consistency of the respondents' beliefs regarding economic planning. It will be discussed in conjunction with the results of the knowledge test questions, particularly item 15, which also deals with economic planning.

Results from the Comfort Questions:
College Week

This discussion of the results of the comfort questions concentrates on the responses which were not neutral. Of the questions dealing with comfort, comfortable responses predominated on six of the questions, and uncomfortable responses predominated for the other five. Overall, respondents were comfortable with and interested in public policy in informal settings, but they were distinctly uncomfortable with the idea of making presentations on public policy themselves, given their present state of understanding. The items where uncomfortable responses predominated (3, 7, 8, and 11) concern a more sophisticated orientation than the items where comfortable responses were in the majority (1, 2, 4, 5, 6, and 9). Lack of public policy knowledge may be behind these results, as they imply that respondents are unwilling to act in situations requiring more knowledge than they already have.

Item 8, "I would need very much preparation before I could feel comfortable making presentations on public policy", received the smallest number of neutral or "somewhat comfortable" responses, and can be considered the item respondents felt most strongly about.

Results from the Comfort Questions: Extension

The Extension staff who completed the questionnaire can be described as being enthusiastic about public policy, and feeling at ease even in situations where they have insufficient knowledge compared to others present. The lowest percentage of neutral responses was received for item 5, "I enjoy discussion of public policy." The highest percentage of uncomfortable responses was received for items 7 and 8, on public policy presentations. The implications of this result for PACE workshops is that practice in making public policy presentations should be encouraged, perhaps even at the expense of devoting time to information on current public policies.

Results from the Knowledge Satisfaction Questions: College Week

All the knowledge satisfaction questions indicated that the majority of respondents (other than those answering in the neutral category) were dissatisfied with their knowledge. "I am satisfied with my knowledge of public policy" was the item which drew the smallest percentage of neutral responses.

Results from the Knowledge Satisfaction Questions: Extension

The item which had the greatest percentage of responses graded as "unsatisfied" or "moderately unsatisfied" was: "I am satisfied with my knowledge of public policy." The item receiving a majority

of satisfied and very satisfied responses was: "My knowledge of public policy has definitely enriched my life." These results were consistent with those of the College Week sample. Overall, the Extension staff sample was dissatisfied with the amount or adequacy of their public policy information.

Results from the Knowledge Test Questions: College Week

Results on the knowledge test questions support the strong feeling of respondents that their knowledge of public policy issues is inadequate. Out of seven questions covering the areas of school funding, Michigan's economy (the business cycle), land use, agriculture, Social Security, transportation, and labor, only three questions got at least 50% correct response. These were received in the areas of Michigan's economy, land use, and Social Security. The troublesome areas were school funding, agriculture, transportation, and labor. The responses to questions 4 and 7 are particularly noteworthy. On question 4 ("The major producers of food in Michigan are corporate farms"), only 35.2% of the responses were absolutely correct. This is an unexpected result, as many of the respondents (47.2%) are from rural areas and might be expected to perform well on this question. This result suggests that images of "monopoly capital" or corporate control influence people's perceptions, even when such control is not the case. Similarly, on question 7 ("Over 50% of the workers in the U.S. belong to labor unions"), only 20.8% of the responses were completely correct. These results may have been influenced by the proximity of the unionized Detroit auto companies. These results are consistent with those of question 4.

In both cases, respondents' perceptions of the economy were that it is dominated by "bigness" and a high degree of concentration.

As mentioned in the section on the scoring of the knowledge test questions, the proportion of missing responses was assumed to reflect the difficulty of the question (aside from wrong answers). Respondents appeared to be disturbed by the question on Conrail ("The Federal Government through Conrail is taking over all Michigan railroad lines"), as 23.2% left it blank. The adjacent questions on the questionnaire had only a small percentage of missing responses, so the blanks on this question do not reflect a trend.

Results of the Knowledge Test Questions: Extension

Over 80% of the responses were correct in the areas of Michigan's economy (item 2), zoning decisions (item 3), and Social Security (items 6 and 16). The poorest performance was received on the questions dealing with zoning as an example of the police power (item 13), with 59.1% incorrect responses, and the elasticity of food supply and demand (56% incorrect). Items which followed in poor performance were on wages and the concept of opportunity cost (item 12, with 28% incorrect), and food processing costs (item 17, 21.5% incorrect). Respondents were most unsure of themselves on the economic planning question (item 15, 76.4% slightly incorrect). They were least unsure on one of the Social Security questions (item 6, 7.6% slightly incorrect). Overall, eight items out of 17 received at least 50% correct responses.

Overview of Survey Results on the Knowledge Test Questions

Both the College Week and Extension respondents did well on the questions dealing with Michigan's economy and Social Security ("Michigan has too many jobs and too few people available to fill them" and "Social Security is financed with funds received from the Federal Income Tax"). When the knowledge test questions were formulated, these particular questions were regarded as relatively easy to answer. Questions on Conrail or Michigan school funding, in contrast, required factual knowledge of a more specific nature, and performance on these questions could not reasonably be expected to be outstanding. Conrail and school millage are not part of everyday conversation or work-life in the way that paycheck deductions or the state of the economy are. Consequently, a mediocre performance on such questions is not very serious, as factual knowledge can be acquired where necessary.

A more critical area is that of understanding concepts so as to be able to apply them to analyze or describe new situations. The College Week sample was not presented with conceptual questions as such. However, the fact that images of monopoly capital influenced their answers to several questions suggests that the College Week respondents lack an understanding of the organization of the American economy.

While the evidence is at best suggestive, the results on the opportunity cost, planning, and elasticity questions given to the Extension sample imply that a stronger correspondence needs to be made between specific public policy issues and the concepts they represent.

Two questions were given to the Extension staff on economic planning. One question dealt with the Extension staff's understanding of the ways economic planning can be defined ("One of the ways for government to determine appropriate anti-recession expenditures is to ask businessmen to indicate their production plans for the coming year"). The other item dealt with the respondent's attitude toward the governmental control inherent in planning ("Any move toward the formulation of a national plan to help stabilize and control the economy would represent a move toward too much interference by government in the lives of private citizens"). The latter question was different from any of the other questions in the questionnaire because it asked respondents to describe how they felt toward a specific, if potential, public policy, rather than public policy in general. These two questions represented a crude attempt to surmise the consistency of the respondent's beliefs toward economic planning.

The majority of the respondents did completely or greatly agree that formulation of a national plan was not a move which represented too much influence by government in the lives of private citizens. They agreed with the idea of economic planning. Yet responses to the definitional question indicated that only 14% were able to see that government knowledge or production plans of businessmen could lead to appropriate fiscal antirecession expenditures. In France, the procedure represented by this question is labeled "indicative planning" and represents a means of economic planning requiring minimal government inteference in private business decisions relative to other types of economic plans, such as those of the U.S.S.R. or the People's Republic of China. In general, the respondents failed to see that an *economic plan* was the subject of the definitional question.

Responses to the Open-Ended Questions

Most important sources of public policy information: The responses to this question were not utilized for the study because the format of the question appeared to confuse the respondents. The question was supposed to be answered such that only three categories out of twelve were selected and ranked. Since the twelve categories were divided into four groups in an aborted attempt to enhance the attractiveness of the questionnaire layout, some respondents assumed the three items within each group were to be themselves ranked in order of importance.

Limitations on acquisitions of public policy information: Twenty-six persons indicated insufficient interest was the greatest limitation on their acquisition of public policy knowledge. Forty-one persons indicated an insufficient understanding of public policy constrained their acquisition of further knowledge, and 72 selected time as their greatest barrier. Ten persons checked the category "other", but these "other" reasons were not specified by the respondents, despite the instructions to do so on the questionnaire. Since some persons checked more than one category, the number of responses is greater than the sample size of 125. The purpose of the question was to get at the greatest *single* constraint on acquisition of public policy information, which was not adequately reflected by the question's wording. The question was worded, "What is the greatest limitation on your acquisition of public policy knowledge?" The responses to this question revealed that there is indeed a role for a program which, like PACE, aims to increase public policy understanding, but

beyond that, the information provided by this question was of minimal value.

Public policy topics of most interest: The public policy topics of most interest to respondents centered on schools and education, and land-use. Participants often listed more than one topic, so the numbers listed in Table 3 do not add up to the sample size of 125. In Table 3, the topics have been broken down into macro-economic issues, regional economic issues, and personal economic issues. This classification is somewhat arbitrary and would not follow any systematic definition, especially for such general topics as health and food. However, the classification does emphasize that, overall, participants frequently viewed public policy issues in the context of their local environment.

Program or service most wanted for the community: The results from this open-ended question are categorized in Table 4 following the procedure used for Table 3. Again, respondents were able to list one or more choices. Public forums, workshops, meeting elected officials, etc., clearly dominated all other desired programs. The next highest area in frequency of choice, schools and education, received less than half as many responses. All other programs were selected by 1 to 4 persons. Table 3 indicates that regional economic issues were most germane as topics of interest to the respondents. This result is consistent with Table 4, where community programs most desirable to respondents were also concentrated in the area of regional economics.

Table 3

Public Policy Topics of Most Interest to Respondents

	# of Respondents Who Listed
Macro-Economic Issues	
Taxes	12
Government, all levels	3
Political Process	3
Inflation	1
Current Legislation	2
Economics	1
All Public Policy Issues	4
Energy	5
Presidential Election	2
Unemployment; Jobs	1
Business Climate	1
Increasing Public Participation	1
Total	37
Regional Economic Issues	
Local Government	8
Schools and Education	33
School Funding	4
School Zoning	3
Land Use	15
State News	1
Environment; Pollution	13
Bottle Legislation	1
Crime	2
Transportation	5
Busing	1
Total	86
Personal Economic Issues	
Civil Rights	1
Food	7
Child Abuse	1
Welfare	3
Family Welfare	3

Table 3 (continued)

	# of Respondents Who Listed
Children	1
Health (includes mental)	4
Consumerism	2
Recreation	1
Social Service (includes legal help)	4
Women's Movement	3
Home Economics	1
Historical Buildings	1
Total	32

Table 4

Programs or Services Related to Public Policy that Respondents Would Like to Have in Their Community

	# of Respondents Who Selected
Macro-Economic Program Areas	
Tax Program	3
Local Government Program	2
Political Process Program	1
Unemployment, Jobs Programs	1
Energy	3
Increasing Public Participation	1
Total	11
Regional Economic Program Areas	
Transportation	1
Schools and Education	8
School Funding	1
Land Use	4
Environment; Pollution	3
Public Forums, Workshops, Meeting Elected Officials, Communications, Newspapers	20
Total	37
Personal Economic Program Areas	
Civil Rights	1
Food	3
Family Welfare	1
Children	1
Health (includes mental)	2
Consumerism	2
Recreation	2
Social Service (includes legal help)	3
Women's Movement	2
Total	17
Other	
Funds for Special Projects	1
None Needed	1
Don't Know Where to Begin	1
Total	3

Table 5

Cooperative Extension Program Most Enjoyed

	# of Respondents Who Selected
Description of Program	
Nutrition	3
Learning	1
College Week	4
Home Extension	1
Day of Learning	1
Mini-College	1
4-H	1
Women's Rights Under the Law	4
Extension Articles, T.V. Shows	2
All Programs Related to Public Policy	1
Land Use Program	1
Migrant Education	1
Total	23
Other	
Didn't go to any	5
Don't know of any	6
Don't Belong	4
Total	15
Grand Total	38

Extension program most enjoyed: Table 5 shows responses to the question, "Which programs on public policy sponsored by the Cooperative Extension Service in the last year did you most enjoy?" A relatively large number of persons indicated a lack of knowledge or understanding of Cooperative Extension operations. Over one-quarter of the responses received fell into a combined category of "didn't belong", "didn't know of any programs", or "didn't go to any programs." (It should be noted that College Week is itself a program sponsored by the Cooperative Extension Service.) Some persons may have listed more than one program of interest, making the fraction of "other" responses higher than one-quarter.

However, these responses were only 15 out of a possible total of at least 125, if every respondent in the sample had answered the question. Nevertheless, these results may be indicative of a need for increased public relations work on the part of the Extension Service.

Reliability

Reliability is defined as the extent to which consistent results are obtained from a measuring instrument such as a questionnaire.[1] Results that are not dependable represent random (or measurement) error, assuming the subject of the measurement and the respondent have not changed between measures. In general, Lickert scales have high reliability. The redundancy of item wording in Lickert scales increases the probability that the items are homogeneous (i.e., they measure the same thing), and decreases the possibility of *chance* agreement or disagreement significantly influencing the results. As one of the purposes of this study was to develop an instrument which

could be used for future studies of public policy attitudes, an indication of the reliability of the index of confidence items is necessary to establish their potential usefulness. If the reliability of the items is very low, for example, the index of confidence items would have to be reworded or even completely changed.

Several methods of assessing reliability exist. The test-retest method involves giving the same test at two distinctly different points in time to the same sample, and correlating the results. The correlation coefficient so obtained is an indication of the temporal *stability* of the test results. Another method of calculating reliability is determining the correlation between parallel (or substantially alike) forms of a test given at the same time point. If a parallel form is not available, the test can be split into halves randomly or according to the researcher's judgment, and each half correlated. Cronbach's *coefficient alpha* (α) is the mean of all possible split-half coefficients for a given test.[2] This procedure indicates the *equivalence* of alternative forms or subdivisions of a test.

For this study, it was impossible to obtain test-retest reliabilities, nor was the use of parallel forms feasible (due to time constraints) even if they had been available. Coefficient alpha was therefore chosen to evaluate the reliability of the results.

The alpha obtained for the College Week index of confidence items was .69. An analysis of variance was used to test the hypothesis that the alpha of .69 represents items that are not significantly different from each other or, in other words, no one item was better than any other item. If the hypothesis were not rejected, then the mean of responses to all items taken together would not be significantly

different from the mean of the individual item responses. The hypothesis was rejected ($F = 30.16$, d.f. = 22, $p = .0001$). (It should be noted that the homogeneity of Lickert-type items is not conceptually inconsistent with the analysis of variance results. Some items can discriminate among individuals better than others, as shown by their greater variance which leads to significant differences among the items, and still measure the same thing, which implies they are homogeneous.)

The coefficient alpha obtained for the Extension results was .75 ($F = 61.72$, d.f. = 33, $p = .0001$). The improvement was probably in part due to the lengthening of the questionnaire for the second administration by the addition of knowledge test items. Reliability increases as the test length increases *provided* the new items are similar to or better than those already comprising the test. (Operationally, this implies that the variance of new items should be the same or larger than that of previous items.)

The reliability of the College Week and the Extension questionnaires is not as high as that generally achieved for Lickert scales (see Chapter 2). However, the reliability is probably sufficiently high for either the College Week or Extension version of the questionnaire to justify confidence that results will not be greatly influenced by measurement error.

Method of Testing the Behavior Model

The hypotheses of the behavior model were tested by crosstabulating responses to the aggregated comfort questions and the responses to each individual comfort question. The behavior model crosstabulation tables are contained in Appendix D. There is a small amount

of multicollinearity in the computation of the resulting 2 x 2 tables (approximately 1/15), since the responses to the particular individual question used in the crosstabulation were not partialed out of the aggregated responses. The multicollinearity which existed did not reveal itself through consistently insignificant results in the test of the hypotheses. Furthermore, the fairly large sample size (n = 218) implied the standard error of the estimates would be sufficiently low to offset any multicollinearity.

In order to create a 2 x 2 table for crosstabulation purposes, the responses to the questions which represented the hypotheses of the behavior model had to be scored dichotomously. The first step in scoring the comfort questions dichotomously was to divide the responses to the comfort questions into two groups, one of which would be labeled "uncomfortable" and the other "comfortable." A "very comfortable", "comfortable", or "somewhat comfortable" response was coded as a "1" and labeled "comfortable" for purposes of the crosstabulation. "Moderately uncomfortable", "uncomfortable", or missing responses were coded "2" and aggregated under the label "uncomfortable." As there were eleven comfort questions, the maximum "comfortable" score was 11; the maximum "uncomfortable" score was was 22. The average of these two figures was taken to determine the dividing point between comfortable and uncomfortable scores. The range of comfortable scores was 11 through 16, and the range of uncomfortable scores was 17 through 22. A similar procedure was followed with the responses to the questions to be crosstabulated with the aggregated comfort questions.

The statistic used to test the significance of each crosstabulation result was chi-square (χ^2). The chi-square measure needs only

a nominal level of measurement such as "comfortable", "not comfortable", "afraid", "not afraid", etc. In the test of the behavior model, the chi-square is an indication of how close the observed frequencies are to the expected frequencies. The null hypothesis (H_o) is that the observed frequencies do not differ from the expected frequencies. The chi-square statistic obtained from the crosstabulation was regarded as statistically significant at the .10 level or less. In other words, the results which produced the significant chi-square would occur on the average of only 10 times out of every 100 such investigations. A significant chi-square implies a "rare event" has occurred, and we therefore reject the null hypothesis. A list of the hypotheses, the corresponding chi-square values, and their significance levels is presented in Table 6.

Discussion of the Test of the Behavior Model

Out of 14 hypotheses comprising the behavior model, only two were rejected at the .10 level of significance. In general, the hypotheses which were not rejected had chi-squares significant at very high levels, .001 or greater. The rejected hypotheses have in common the erroneous idea that persons comfortable with public policy are complacent and satisfied with their knowledge. *Both* comfortable and uncomfortable persons were dissatisfied with their knowledge and felt their appreciation of public policy would be enhanced by more knowledge.

In addition, comfortable persons were more concerned about increasing their knowledge of public policy topics than in presenting a mere facade of knowledgeability to others. The chi-square was largest for the hypothesis that people who are comfortable with

Table 6

Chi-Square Values for Selected Crosstabulations for the Aggregated College Week and Extension Samples

Hypothesis	χ^2	df	P<
1. As comfort with public policy increases, a person's esteem for public policy will increase.	13.4	1	.0003
2. As comfort with public policy increases, a person's enjoyment of public policy discussions will increase.	28.3	1	.0000
3. As comfort with public policy increases, a person's feeling of being overwhelmed by public policy will decrease.	27.4	1	.0000
4. As comfort with public policy increases, a person's feeling of confusion with public policy will decrease.	42.6	1	.0000
5. As comfort with public policy increases, a person's judgment of the amount of public policy knowledge possessed increases.	39.3	1	.0000
6. As comfort with public policy increases, a person's feeling of adequacy of public policy knowledge increases.	.85	.1	.35
7. As comfort with public policy increases, a person's fear of revealing ignorance decreases.	74.2	1	.0000
8. As comfort with public policy increases, a person's fear of asking questions about public policy decreases.	53.5	1	.0000
9. As comfort with public policy increases, a person's satisfaction with his knowledge of general public policy topics increases.	.00	1	.99
10. As comfort with public policy increases, a person's familiarity with source materials in public policy increases.	27.1	1	.0000

Table 6 (continued)

Hypothesis	χ^2	df	P<
11. As comfort with public policy increases, a person's belief that public policy topics are not especially difficult topics to speak on increases.	5.6	1	.02
12. As comfort with public policy increases, a person's belief that public policy presentations need not be restricted to highly skilled specialists increases.	13.5	1	.0002
13. As comfort with public policy increases, a person's estimate of preparation time needed before he or she can feel comfortable making public policy presentations decreases.	28.5	1	.0000
14. As understanding of public policy increases, interest in public policy increases, especially for uncomfortable persons.	2.9	1	.09

public policy are not afraid of revealing their ignorance (see Table 6, hypothesis 7). This is a desirable characteristic for persons who have the potential of becoming community leaders or Extension staff capable of working within a public policy framework.

An attitude of being comfortable with public policy appears to limit feelings of being overwhelmed or confused by the issues presented. Perhaps this result can be explained by an analogy. Just as persons can learn to interpret feelings of anxiety as the more positive feelings of excitement, persons who are comfortable with public policy appear to interpret any lack of knowledge or understanding as a personal, positive challenge, rather than a threat.

Beyond the challenges offered by public policy, comfortable persons also value their public policy knowledge. They are more likely than their noncomfortable counterparts to be familiar with sources of information about public policy topics. Furthermore, 70% of all comfortable persons consider their knowledge of public policy topics better than the average person's, but only 15% of the noncomfortable persons will make such a statement (see Appendix D, hypothesis 5).

While uncomfortable persons were evenly divided on the issue of whether or not they were overwhelmed by public policy (a state which is probably related to their knowledge of public policy issues), comfortable persons were, in general, clearly *not* overwhelmed. Comfortable persons were evenly divided on the issue of preparation time needed to prepare a presentation on public policy; 98% of the uncomfortable persons felt they needed much preparation time. However, a majority of both comfortable and uncomfortable persons believed public policy presentations need not be reserved for highly skilled specialists.

Since public policy topics are not generally believed to be especially difficult for comfortable persons to speak on (the conclusion drawn from the test of hypothesis 11), such presentations should not call for specialists (hypothesis 12), nor for very much personal preparation (hypothesis 13). The hypotheses dealing with public policy presentations were consistent in their implications.

Limitations on the Test of the Behavior Model

The description of comfortable and uncomfortable persons presented by the behavior model has several limitations. In a broader sense, some of these are limitations of the entire study.

The sample itself was a biasing factor. Those persons who had the time to attend College Week probably also had sufficient family income and provision for child care (where necessary) to be able to do so, unless they attended during their work vacation. Most of the women sampled were in the 25-39 age group, covering some of the main child-bearing years. Fairly high levels of education characterized the group. These factors are among the reasons why the sample used for this study did not represent an extensive cross section of society in terms of income and education. Further work would have to be done to determine the attitudes of other segments of society such as the rural poor. They represent one group who might have considerably less confidence with public policy than the College Week sample, yet who could distinctly benefit from increased participation in the political process.

There was little uniformity in the administration of the questionnaires. The College Week questionnaires were distributed with differing instructions. Some persons were told to return theirs

immediately; others were given until the next class meeting to complete them. In contrast, the Extension sampling was done entirely by mail. Probably the major effect this situation had was to impose some sort of uniformity on the responses where persons had the opportunity to consult with their friends. Hopefully, the anonymity of the questionnaires limited such consultations.

For the test of the behavior model itself, comfortable persons were defined rather broadly, since neutral responses of "somewhat like me" were permitted to fall into the comfortable category. Consequently, the model was tested using the responses of 178 comfortable persons vs. those of 40 uncomfortable persons. Missing responses were assumed to be due to a state of discomfort that precluded answering the question. To the extent responses were missing due to other reasons such as carelessness, such a classification was invalid.

Crosstabulation of the College Week Demographic Characteristics

A series of crosstabulations was performed to determine if the demographic variables significantly affected comfort, nowledge, or knowledge satisfaction, and if the latter three variables were significantly related to each other. These crosstabulations were:

Comfort x Knowledge Satisfaction
*Comfort x Knowledge Test
Comfort x Residence Area
*Comfort x Education
*Comfort x Work
Knowledge Satisfaction x Residence
Knowledge Satisfaction x Education
Knowledge Satisfaction x Work
Knowledge Satisfaction x Knowledge Test
*Knowledge Test x Residence
Knowledge Test x Education
Knowledge Test x Work

An asterisk indicates a relationship significant at at least the .10 level, using a chi-squared distribution. The crosstabulation tables themselves may be found in Appendix E, along with the corresponding chi-square measures and significance levels.

Comfort was scored dichotomously in the same manner as for the test of the behavior model. The knowledge satisfaction questions were scored in a similar manner, with the dichotomy being "satisfied" and "not satisfied." The knowledge test questions were scored according to Table 1 with two changes. Responses of "agree to a little extent" which were considered slightly incorrect for purposes of Table 1 were considered correct for purposes of the crosstabulation. All other slightly incorrect responses, along with the incorrect and missing responses, were scored as incorrect. Consequently, knowledge test responses were divided into a dichotomy of "correct" and "incorrect" responses.

Residence area was divided into three groups: farm, town, and city. The *farm* category covers the demographic descriptors "on the farm" and "in the country, but not on a farm" listed on the College Week questionnaire. The *town* category included the descriptors: "in a town, or village with less than 2,500 people", and "in a town or city with 2,500 to 10,000 people." The remaining residence descriptors fell into the *city* category. Educational background was divided into two levels corresponding to a portion or all of high school vs. college or other training. The College Week descriptors for the "work" category (i.e., part time, full time, or not at all) were retained for the crosstabulation.

Crosstabulation of Confidence Index Variables Using College Week Data

The most pronounced association was between comfort and knowledge, with a chi-square significant at the .0019 level. Over two-thirds of the comfortable persons were knowledgeable, in contrast to only one-third of the uncomfortable persons.

The relationship between knowledge and residence area was significant at the .03 level. As was noted in the beginning of the chapter, the public policy classes contained more farm residents than did the Assertiveness Training class. A more balanced distribution of farm - non-farm residents would be needed in the public policy classes and in the Assertiveness Training class in order to effectively determine whether residence area influenced knowledge of public policy. The problem is that the farm residents tended to preselect themselves into the public policy classes. However, one PACE implication can be derived from these results. Farm residents such as those who attended College Week might be good candidates for recruitment for PACE workshops.

Comfort was also significantly related to education. The chi-square for this relationship was significant at the .08 level. However, no substantive statement can be made about the PACE program implications of the significant relationship between comfort and educational level. Too many of the respondents, 84.7%, are high school graduates only, to be able to effectively compare their reactions to those of "college or other" persons. A more balanced distribution across the education variable is necessary.

The relationship between comfort and work (significant at the .08 level) indicates that comfortable persons are more likely to be

unemployed. The percentage of comfortable persons who did not work (56.2%) was greater than the percentage of comfortable persons who worked part time (24.7%) or full time (19.1%).

Crosstabulation of Confidence Index Variables Using Extension Data

Crosstabulations were done on the Extension data to determine if the results would be consistent with those done on the College Week data. The crosstabulations performed were Comfort x Knowledge and Comfort x Knowledge Satisfaction. The tables themselves are contained in Appendix G.

There was no significant relationship between comfort and knowledge satisfaction for the Extension sample. The relationship between comfort and knowledge was significant at the .001 level. Both of these findings are consistent with the College Week results.

Results of the Item Analysis

There are several ways of analyzing whether or not an item should be included in the final version of a Lickert-type scale.[3] The one chosen for this study involves correlating the scores on each item with the scores on the whole questionnaire.

Conceptually, this procedure reveals how well each individual item contributes to what all the other items are measuring. For example, if a statement such as, "I believe seashells are pretty", appeared on the public policy oriented questionnaire used in this study, it should have no correlation with the responses made on the other items. The total score range was the summation of each individual's scores on all items. Since the data were ordinal, therefore non-parametric, Kendall correlation coefficients were obtained. Spearman

coefficients, the other commonly used nonparametric correlation coefficients, were not utilized in this study because they are conceptually closer to the correlation coefficients obtained from continuous data (i.e., Pearson's product-moment correlation coefficients). The large number of tied ranks in the data of this study implied a discrete rather than continuous distribution of scores existed for which Kendall's tau is more appropriate than Spearman's rho.[4]

The results, shown in Table 7, are grouped according to the type of question: comfort, knowledge satisfaction, and knowledge test. The correlation coefficients and significance levels are presented next to each item. It should be noted that, as each item was correlated with the *total* of 23 items, there is a small amount of multicollinearity and therefore spuriousness in the significance level results. As the fraction of multicollinearity influencing the results is only 1/23, no corrective measures were taken.

One way of conducting the item analysis once correlation coefficients have been obtained is to list the items going from high to low correlations and discard those items (for subsequent administration of the questionnaire) with coefficients lower than an arbitrarily determined level.

The item analysis of the College Week results did not reveal a clear "break-off" point for acceptance or rejection of any of the items with coefficients significant at the .001 level, since the coefficients ranged in value from .44 to .25. However, the relatively low significance of items 10 and 11 in the comfort items section, and items 4 and 5 in the knowledge satisfaction items section did suggest they should be dropped from a second administration of the

Table 7

Item Analysis of the Index of Confidence

	College Week Kendall Correlation Coefficient (N = 125)	Significance Level	Extension Kendall Correlation Coefficient (N = 93)	Significance Level
Comfort Items				
1. I avoid participating in discussions of public policy because I am afraid of revealing my ignorance.	.44	.001	.44	.001
2. I am sometimes afraid to ask questions about public policy because I feel I should already know the answer.	.41	.001	.30	.001
3. I find public policy confusing.	.40	.001	.24	.001
4. I would need very much preparation before I could feel comfortable making presentations on public policy.	.37	.001	.39	.001
5. I consider my knowledge of public policy better than the average person's.	.37	.001	.39	.001
6. I would feel very comfortable discussing public policy with a group of acquaintances.	.36	.001	.42	.001
7. Public policy changes so rapidly it is hopeless to even begin to keep up with it.	.31	.001	.26	.001
8. If I did not know the answer to someone's question on public policy, I would know where to find it.	.28	.001	.30	.001

Table 7 (continued)

	College Week Kendall Correlation Coefficient (N = 125)	Sig-nifi-cance Level	Extension Kendall Correlation Coefficient (N = 93)	Sig-nifi-cance Level
9. I enjoy discussions of public policy.	.27	.001	.35	.001
10. Giving speeches or presentations on public policy should be reserved for highly skilled specialists.	.12	.02	.08	.129
11. Giving speeches or presentations on public policy is no more difficult than for anything else.	.11	.04	.17	.010
Knowledge Satisfaction Items				
1. My knowledge of public policy has been adequate for my needs.	.36	.001	.37	.001
2. My knowledge of public policy has definitely enriched my life.	.36	.001	.29	.001
3. I would find public policy more interesting if I understood it better.	.28	.001	.32	.001
4. I do not know as much about public policy as I would like to know.	.10	.04	.17	.010
5. I am satisfied with my knowledge of public policy.	.07	.12	.40	.001
Knowledge Test Items				
1. The Federal government through Conrail is taking over all Michigan railroad lines.	.40	.001	.45	.001

Table 7 (continued)

	College Week Kendall Correlation Coefficient (N = 125)	Sig-nifi-cance Level	Extension Kendall Correlation Coefficient (N = 93)	Sig-nifi-cance Level
2. The Soviet Union is the world's major producer and exporter of grain.	N.A.	N.A.	.42	.001
3. The major producers of feed in Michigan are corporate farms.	.38	.001	.38	.001
4. Disease is the single largest contributor to the high death rate of children in developing countries.	N.A.	N.A.	.38	.001
5. Social Security is financed from funds received from the Federal income tax.	.33	.001	.22	.001
6. Approximately 25% of the cost of processed food is due to processing and distribution costs.	N.A.	N.A.	.32	.001
7. Most of the zoning decisions are currently made by the state government.	.30	.001	.34	.001
8. Michigan's economy has too many jobs and too few people available to fill them.	.30	.001	.26	.001
9. Over 50% of the workers in the United States beling to labor unions.	.26	.001	.38	.001
10. Michigan public schools receive most of their financial resources from millage voted by residents of the school district.	.25	.001	.02	.385
11. Food supply and demand are elastic.	N.A.	N.A.	.23	.001

Table 7 (continued)

	College Week Kendall Correlation Coefficient (N = 125)	Sig-nifi-cance Level	Extension Kendall Correlation Coefficient (N = 93)	Sig-nifi-cance Level
12. When land is taken under eminent domain, just compensation to the owner is usually the value of the property assessed for tax purposes.	N.A.	N.A.	.20	.003
13. The age of the average American has been decreasing over the last five years.	N.A.	N.A.	.14	.027
14. Zoning is an example of the police power to direct land use.	N.A.	N.A.	.14	.024
15. One of the ways for government to determine appropriate antirecession expenditures is to ask businessmen to indicate their production plans for the coming year.	N.A.	N.A.	.10	.082
16. Under the Social Security program, the taxes collected from persons presently working are used to finance those who are currently retired.	N.A.	N.A.	.05	.230
17. Many persons seek employment because the wages they expect to receive are greater than the value of alternative uses of their time.	N.A.	N.A.	.05	.225

Table 7 (continued)

	College Week Kendall Correlation Coefficient (N = 125)	Sig-nifi-cance Level	Extension Kendall Correlation Coefficient (N = 93)	Sig-nifi-cance Level
Other				
Any move toward formulation of a national plan to help stabilize and control the economy would represent a move toward too much interference by government in the lives of private citizens.	N.A.	N.A.	.10	.082

questionnaire. There were no discernible reasons why these items in particular were less consistent in contributing to the overall index.

However, for the administration of the questionnaire to the Extension staff, it was decided to retain these less significant items since they did contribute information useful to PACE. Item 5 of the "Knowledge Satisfaction Items" jumped in significance from the .12 level to the .001 level. The rest of the items which were not very significant for the College Week questionnaire retained relatively low significance levels when an item analysis of the Extension results was done. This finding again suggests the use of these items should be discontinued, *ceteris paribus*, in future questionnaire administrations.

The item analysis of the Extension results differs from the College Week analysis due to the addition of knowledge test items to the Extension questionnaire, as well as a smaller sample size. The poorest items tended to be among the newly added knowledge test questions, which were meant to be more difficult than the knowledge test items used for College Week. Five of the seven insignificant knowledge test items had a relatively high percentage of missing responses, 5.4-6.5%, which may have contributed to their weak correlation with the total scores. The insignificance of the item listed under the "Other" category may be explained by noting that it is really tapping a person's political values and, as such, is inconsistent with the tone of the rest of the items of the questionnaire.

Only four items out of a total of 34 for the Extension questionnaire, and two items out of the 23 used for the College Week survey, did not achieve a .10 or better level of significance. Overall, these

results of the item analyses indicate that either the College Week or Extension version of the questionnaires is appropriate for use as an indicator of public policy attitudes. The results of the item analyses also suggest the two questionnaires are homogeneous--i.e., the items "hang together" and are tapping a similar trait.

Results of the Factor Analysis:
College Week

> Factor analysis is a means by which the regularity and order in phenomena can be discerned...We associate a pattern of attitudes, for example, with businessmen and another pattern with farmers...Factor analysis can be applied in order to explore a content area, structure a domain, map unknown concepts, classify or reduce data, illuminate causal nexuses, screen or transform data, define relationships, test hypotheses, formulate theories, control variables, or make inferences.[5]

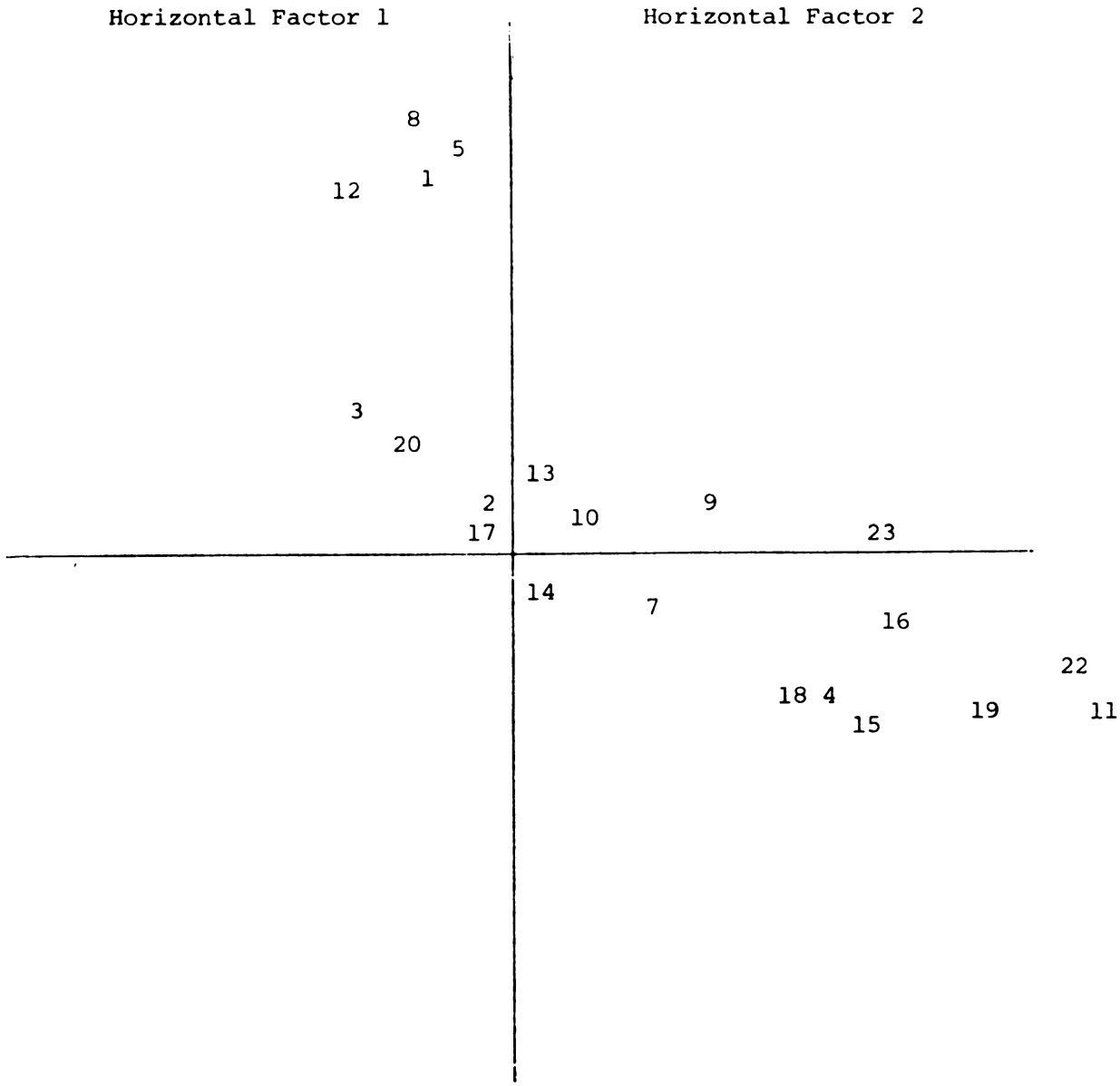
Factor analysis is generally intended for use with normally distributed data. To use it with ordinal or nonparametric data (in this case, numbers from 1 to 5) may mean that the true patterns of relationships characterizing the data are not capable of being as fully displayed and consequently, as meaningful, as they would otherwise be. (Nonparametric factor analytic programs are insufficiently developed at the present time to encourage their use in this study.)

The purpose of the factor analysis was to test the hypothesis that responses would cluster into three groups, corresponding to the comfort, knowledge, and knowledge satisfaction divisions of the index of confidence. The Statistical Package for the Social Sciences (SPSS) was used for the factor analysis. A principal component analysis was performed (with iteration) and varimax rotation.

Nine factors resulted, of which only the first three were interpretable. They accounted for 58% of the variance in the data. Whereas the results did not support the hypothesis about the structure

of the questionnaire, they did appear to reflect the behavior model taken as a whole. The graphs of the first three factors (see Figures 1 and 2) show what can be described as a continuum of confidence. The comfort and knowledge satisfaction questions are arrayed from those items reflecting comfort and satisfaction with public policy, in the upper left of Figure 1, to questions expressing discomfort and dissatisfaction, in the lower right portion. For example, the item 12 in the upper left of Figure 1 reads, "My knowledge of public policy has definitely enriched my life." Item 8, falling next to item 12, reads, "I enjoy discussions of public policy." On the other hand, items that fall at the end of the continuum, 22 and 11, read, respectively, "I find public policy confusing" and "I avoid participating in discussions of public policy because I am afraid of revealing my ignorance." Figure 2 follows much the same pattern. The items which are to the left of vertical factor 3 in Figure 2 express comfort and enjoyment of public policy; the items to the right express the opposite.

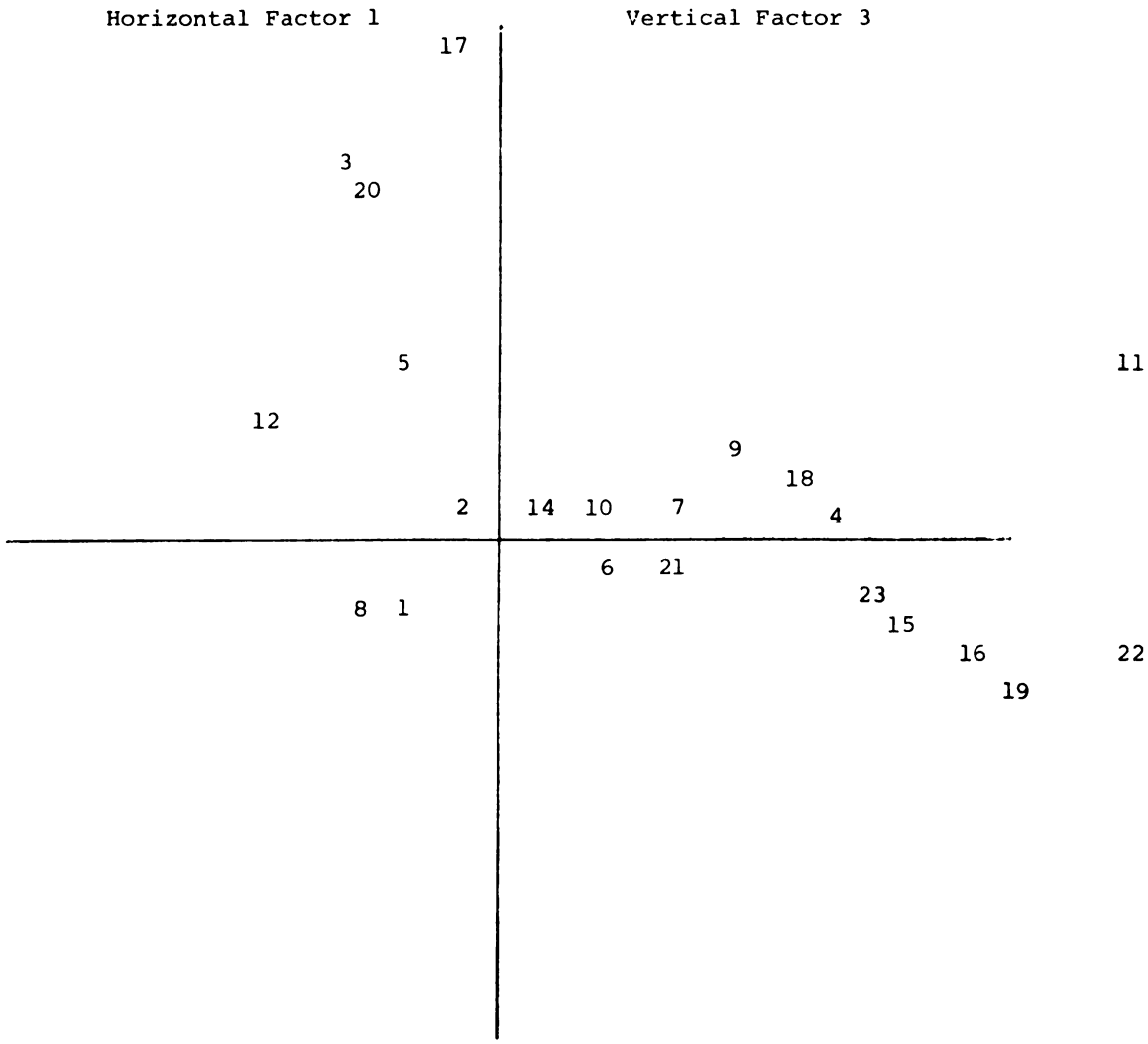
As Figures 1 and 2 show, the knowledge test questions are interspersed among the comfort and knowledge satisfaction items. A considerable amount of subjective judgment would underlie any statement that the items are arrayed on the comfort continuum in order of their difficulty. However, the fact that the questionnaire items did not cluster into three groups indicates the items could be considered homogeneous--reflecting public policy attitudes and not three disparate attitudes toward comfort, knowledge, and knowledge satisfaction. (Homogeneity was also demonstrated by the item analysis and evaluation of reliability.)



1 = V1 2 = V2
3 = V3 4 = V4
5 = V5 6 = V6
7 = V7 8 = V8
9 = V9 10 = V10
11 = V11 12 = V12
13 = V13 14 = V14
15 = V15 16 = V16
17 = V17 18 = V18
19 = V19 20 = V20
21 = V21 22 = V22
23 = V23

Figure 1

Graph of Factor 1 and Factor 2



1 = V1 2 = V2
3 = V3 4 = V4
5 = V5 6 = V6
7 = V7 8 = V8
9 = V9 10 = V10
11 = V11 12 = V12
13 = V13 14 = V14
15 = V15 16 = V16
17 = V17 18 = V18
19 = V19 20 = V20
21 = V21 22 = V22
23 = V23

Figure 2

Graph of Factor 1 and Factor 3

Items that loaded heavily on factor 1 would describe uncomfortable persons as characterized by the behavior model. (See Table 8 for the factor loadings.) For example, loadings of .49 or higher occurred on items 11, 15, 16, 19, and 22. The highest positive loading (.76) was for the statement, "I avoid participating in discussions of public policy because I am afraid of revealing my ignorance." Smaller positive loadings also resulted on items that reflected an insecurity, fear, and avoidance of public policy issues. Negative loadings appeared for all items which expressed confidence and enjoyment. The highest negative loading (-.24) was for the statement, "My knowledge about public policy has definitely enriched my life." This result is consistent with the behavior model's proposition that uncomfortable persons will not value public policy. Of the knowledge satisfaction items, the item, "I would need very much preparation before I could feel comfortable making presentations on public policy", received the highest loading, .61. This result is consistent with the insecurity revealed by the other items which had high loadings on this factor. From the pattern of loadings on this factor, it appears that uncomfortable persons are relatively unconcerned about whether or not their knowledge is personally satisfactory, and more disturbed by the thought that that knowledge will be subject to the scrutiny of others.

In contrast, the items with high loadings on factor 2 appeared to describe comfortable persons, as shown by examination of items 1, 5, 8, and 12. Negative loadings appeared on all items that expressed fear and avoidance of public policy. The item, "My knowledge about public policy has definitely enriched my life", had

Table 8

College Week Factor Loadings*

Question Number	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9
1	-.13	.74	-.07	-.03	-.63	.07	-.09	-.15	-.09
2	-.01	.08	.02	-.31	.26	.15	-.01	.38	-.11
3	-.15	.22	.55	-.46	.32	.26	-.04	.02	-.01
4	.36	-.20	.03	.19	.01	.10	-.04	-.18	-.28
5	-.05	.79	.29	-.05	-.13	-.25	.11	-.21	-.14
6	.07	.02	-.03	.01	.29	-.04	.09	-.03	.11
7	.15	-.02	.01	.17	.59	-.07	.10	.11	.11
8	-.17	.76	-.08	.07	.10	-.06	-.20	.17	.07
9	.21	.07	.14	.07	-.10	-.01	-.54	.01	-.16
10	.07	.01	.03	.72	.25	-.03	-.04	-.01	.07
11	.76	-.17	.19	.08	.14	-.08	-.14	-.06	-.08
12	-.25	.67	.22	.10	-.02	-.02	-.01	.40	.03
13	.02	.11	.10	.61	-.08	.24	.10	-.07	-.00
14	.01	-.04	.05	.06	.10	-.00	.02	-.02	.56
15	.49	-.21	-.10	.07	.08	.10	.12	-.15	.47
16	.50	-.09	-.16	.19	.12	.27	.01	.05	.13
17	-.02	.00	.81	.15	-.20	-.05	-.10	-.02	.02
18	.32	-.15	.08	.21	.10	-.11	.61	.04	-.11
19	.61	-.25	-.28	-.06	-.11	.17	.09	.54	-.06
20	-.13	.17	.46	.16	-.66	-.16	.23	-.02	.20
21	.17	-.11	-.01	.13	-.07	.66	-.09	.10	-.01
22	.71	-.13	-.14	-.02	.26	.08	.02	.12	.09
23	.41	.00	-.01	-.24	.00	.34	.21	-.08	.01

*Question numbers refer to items on the College Week questionnaire.

one of the highest loadings, .69. Yet other items tapping knowledge satisfaction (2, 7, 17, 19, and 20) had low positive or low negative loadings. The item, "I consider my knowledge of public policy better than the average person's", had the highest loading on factor 2, .79.

Items with high loadings on factor 3 described persons not as easily classified as enthusiastic or unenthusiastic. The item, "I am satisfied with my knowledge of public policy", received the highest factor loading, .81. Only for this group does the issue of knowledge satisfaction appear to be relevant. Overall, the factor loadings appeared to characterize persons who were knowledgeable (at least insofar as self-report) and satisfied with that knowledge, but who did not particularly enjoy public policy. Lack of interest, not comfort, appears to define these individuals. The neutral group of the behavior model most closely corresponds to this description. It will be remembered that neutral persons were not seen as likely potential participants in public policy workshops.

The interpretation of loadings on the knowledge test questions is ambiguous. Examination of the knowledge test item loadings on all nine factors did not reveal any meaningful relationships. The knowledge test item loadings on the factors whose other item loadings described comfortable, uncomfortable, or neutral persons varied according to the kind of person represented. However, it is unclear whether the associations between knowledge test items and the description of persons means that a given type of person found a given test item easy or difficult. For example, the test items which loaded most heavily on factor 1 were not those that were especially easy or difficult, when the scored results of Table 2 were considered.

Overall, the factor analysis of the College Week results appears to have been useful in testing the behavior model as a whole. A factor analysis was also done on the Extension responses. The results of this second factor analysis will not be discussed, as it was impossible to discern patterns of meaningful relationships among the twelve factors which resulted. The difference in the number of factors that resulted implied that the Extension sample represented a population different from that of the College Week sample.

The correlation matrix which was inverted for the Extension factor analysis was nearly singular. Row 32 of the matrix was dependent on previous ones. Row 32 represented the correlation of variable 32, which was the responses to the item, "One of the ways for government to determine appropriate antirecession expenditures...." with the responses to the rest of the items in the questionnaire. The factor loadings for the Extension responses are reported in Appendix F.

Summary

This chapter has presented the results of the College Week and Extension surveys. The statistical analyses focused on an evaluation of the results which would contribute information useful for PACE, as well as results which would indicate the potential of the instruments used in this study for future surveys of public policy attitudes. Two analyses critical to evaluation of the questionnaires were the determination of reliability and the item analysis. The reliability values achieved for both questionnaires indicated that results from their usage would probably not be greatly influenced by measurement error. The item analysis indicated the items of each questionnaire were, on

the whole, consistent in measuring attitudes toward public policy.

The evaluation of the behavior model utilizing chi-squared tests of significance demonstrated that there was a significant positive relationship between comfort and sustained interaction with public policy. Unless a person is comfortable with public policy, it is unlikely he or she will act in a leadership capacity in community development. Chapter 4 explores theories of learning and motivation as a foundation for suggested means by which comfort with public policy can be sustained or increased within the PACE workshops.

ENDNOTES

1. Claire Seltiz, Lawrence S. Wrightsman, and Stuart W. Cook, *Research Methods in Social Relations,* 3rd ed. (New York: Holt, Rinehart and Winston, 1976), p. 181.

2. L. J. Cronbach, "Coefficient Alpha and the Internal Structure of Tests," *Psychometrika* 16 (September, 1951): 297-334.

3. Allen L. Edwards, *Techniques of Attitude Scale Construction,* (New York: Appleton-Century-Crofts, Inc., 1957), pp. 152-155.

4. W. J. Conover, *Practical Nonparametric Statistics,* (New York: Wiley, 1971), p. 249.

5. R. J. Rummel, "Understanding Factor Analysis," *Journal of Conflict Revolution* 11 (December, 1967): 447-448.

CHAPTER 4

Introduction

Public policy education offers more difficulties to both teachers and students than many other subjects. The skills developed in a program on public policy cannot represent standardized levels of performance, such as an ability to type or to do problems involving higher mathematics. Rather, participation in a public policy program must, for both teachers and students, involve the development of skills reflecting an increased awareness and responsiveness to the environment. Examples of such skills are community leadership, an ability to see personal needs in terms of relevant public policy issues, and achieving the confidence necessary to tackle community problems with the support of some guidelines for effective action. Flexibility in both program design and implementation becomes crucial.

Consequently, no one theoretical area of learning and motivation can suffice to shape a program on public policy education. Within the framework of psychological theories emphasizing the environment's impact on shaping behavior to theories stressing the importance of the individual's perception of self as a guide to behavior, the areas of motivation and learning will be examined for their implications for the PACE educational experience. The objective of this chapter is to determine the kind of educational experience most likely to encourage or maintain feelings of comfort with public policy on the part of PACE participants.

The discussion will open with a consideration of the motivation to learn which results from the phenomenon of curiosity. Much of the theoretical work done on curiosity was based on animal experients and carried over into the area of human learning through work done by behavioral psychologists. The theories of the behavioral psychologists were in turn challenged by the perceptual psychologists, who emphasized the primacy of the individual over the environment. Within the discussion of each of these three theoretical areas, curiosity and motivation, behaviorism, and perceptual psychology, suggestions for the conduct of PACE workshops will be presented. Prior to the concluding section, a report of an interview with a public policy educator will be presented which offers an applied and somewhat contrasting viewpoint to the theoretical material of the chapter.

Motivation

Motivation concerns the intensity of activity and preferences for activity exhibited by an organism. Early research on motives generally defined them as forces which acted to reduce a state of tension within the individual "and to protect, satisfy, and enhance the individual and his [sic] self concept."[1] Yet tension reduction may not always be the preferred outcome. Seeking new situations for the challenge and stimulation they provide is an act which represents an effort to *manage* rather than reduce tension.

Studies of exploratory drives, stimulus hunger, and need curiosity tend to be theoretically based on the concept of tension management. Such studies have had rats, primates, and humans as their subjects. Several general principles emerge from these studies, regardless of the organism observed. For example, complexity is preferable to

monotony, within limits. Too much change creates fear which precludes exploration. Thus, changes in stimulation should be moderate or mild.[2] Complexity often necessitates a "review" before moving on to a new area.

The application of theories of motivation and curiosity to developing a program of public policy education suggests that complex issues are to be preferred to simple ones, so long as participants are not overwhelmed by details. For example, a program on land use need not be treated in a "once over lightly" fashion in one session, but in fact could be fruitfully expanded into several sessions exploring the mechanics of environmentalism as it relates to land-use, discussions of legislation on land use, and treatment of the "ethics" of land use from the perspective of various groups in the community (developers, land owners, apartment dwellers, etc.). Time should be allotted for a review of the previous units covered, to strengthen understanding of the topic and to enable participants gradually to form an overall picture of the topic which should, in the end, give them more flexibility in responding to the demands of a given situation. Also, a review has the benefit of providing continuity in a program where participants may not always have the time to attend each session.

Optimal Levels of Stimulation and Motivation

Depending on the initial level of *total* stimulation, both increases and decreases in stimulation can motivate the individual to explore the environment, which suggests an optimal level of stimulation or tension exists for a particular situation.

> For those attempting to modify behavior, as through education. . .the implications of an optimal motivation may be great. Quite different procedures are indicated if learning in daily life occurs rarely, rather than ordinarily, through tension reduction. One function of the teacher may be, for most pupils, is to increase tensions somewhat and to make the school situation a rather exciting one. Learning may occur best when stimulation is strong enough to provide maximum reinforcement, but not strong enough to be disruptive.[3]

Conversely, increases in stimulation where a state of anxiety exists will increase tension to unmanageable levels. Tension management is essential to effective learning.

Just as there appears to be an optimal degree of stimulation, some theorists content there is also an optimal degree of motivation with respect to learning. Bruner, Matter and Papanek found that overlearning and overmotivation decreased the breadth of learning resulting from a situation.[4] If persons were heavily exposed to one method of solving a problem, for example, their overlearning resulted in overlooking simpler methods of attacking the same kind of problem. They noticed only the kind of environmental cues that had previously led to a solution. Their preoccupation with one main method of performance also blinded them to changes in the situation. Overmotivation produced similar results. Persons would focus on only those parts of the task which were strictly relevant to achievement of the goal. While the efficiency of their learning increased in terms of the traditional measures of speed and latency, their selective attention decreased what might be regarded as an alternative measure of efficiency: "How much about the environment is the organism picking up over and beyond what is required for the task at hand?"[5]

The concept of optimal stimulation suggests that whereas comfortable persons may enjoy an exciting public policy discussion such as one calling for their involvement in a forum or extended question and answer sessions with local leaders, uncomfortable persons may require a more passive role, *which may be entirely adequate for them.* The persons organizing the public policy presentations could frequently offer program alternatives to the group. If they fail to select a challenging format, it should not be interpreted that the group is lazy, unenthusiastic, or that the program is somehow a failure. As the discussions on overlearning and overmotivation indicate, efficiency can be defined in many ways.

Curiosity can be regarded as the act of learning to anticipate changes in the environment. Curiosity would not exist when the individual comes into initial contact with a completely novel situation but for the existence of a "learning to learn" phenomenon which provides incentive motivation for an investigatory encounter.[6] Otherwise, the individual's fear would dominate the situation and no exploration would occur.[7] In general, rewards or reinforcement encourage exploration. However, the incentive value of a reward depends not only on the reward itself, "but also its nearness in space and time."[8] "The immediate reward of exploration is acquaintance with the present environment with freedom from anxiety and readiness for action."[9] Without additional reinforcement, however, exploration eventually stops.[10]

Hedonic Theory and Its Offshoots

So far, the theories discussed have focused upon the motivating potential of a person's *environment.* Young's hedonic theory of

motivation instead emphsizes the degree of liking or attractiveness of an object to the person.[11] On the strength of a person's predilection for a goal, she either approaches or avoids it. However, the anticipation of pleasure and subsequent responses are learned. In line with his theory, Young adds a cautionary note: "We would . . .insist that relief from distress cannot be equated with reward or positive enjoyment."[12]

According to the hedonic theory of motivation, persons will not participate in an educational program unless they have some initial liking for public policy. The educational program must teach people how to channel that liking into community development. By giving persons a feeling of competence, their appreciation of public policy can be expanded. Although the theoretical discussion indicates that the act of dealing with the environment is useful for relieving anxiety, in itself, such relief does not appear to encourage strongly continued participation in the same manner that a reward would. To sustain interest, rewards should result from the process rather than the product. This is particularly important for public policy activities where the persons or groups involved may not, outside of the educational experience, actually get their candidate elected, or change irritating policies. Rewards must be other than relief from distress. They should increase self-esteem, not only to develop interest in the educational program but also to cushion any disappointment resulting from actual experiences with community development. Furthermore, by encouraging the act of participating in public policy activities to be rewarding in itself, rewards are more immediate than if they hinged upon the possible achievement of some future goal. As indicated by the theories

previously reviewed, the incentive value of a reward increases with its nearness in time.

McClelland and Hebb qualified Young's theory by noting that some frustration, or need for problem solving, would increase interest in an (at least somewhat familiar) activity, but too much would destroy pleasure in the activity.[13] Thus, the person must have some expectation of success in working toward a goal. Woodworth extends this reasoning:

> To utilize this line of facts in predicting behavior you would have to know also what goals are likely to be chosen. The choice of goals would depend on the opportunities offered by the environment and also on the organism's capabilities for taking advantage of those opportunities. In short: to predict human interests you have to know human capacities for dealing with the environment.[14]

To illustrate his behavior primacy theory, Woodworth gives the example of a bird learning to fly. At first, flying is engaged in for its own sake and only later after much practice does the bird attempt to use that skill in finding food. Consequently, Woodworth claims that behavioral capacities must have their own intrinsic motivation.[15] Yet Woodworth doesn't slight the usefulness of a reward to determine approach or avoidance. "The first step is that of learning the incentive present in the situation."[16] For Woodworth, then, "dealing with the environment [is] the most fundamental element of motivation."[17]

White carries Woodworth's ideas a step further.[18] He does not deny the theoretical importance of the theories dealing with the person's interaction with the environment. He emphasizes that the reward of such activity is inherent in the activity itself. The satisfaction and liking that result from the process of dealing with the

environment he calls a "feeling of efficacy" or competency. He believes that

> it may be that the satisfaction of efficacy contributes significantly to those feelings of interest which often sustain us so well in day-to-day actions, particularly when the things we are doing have continuing elements of novelty.[19]

Behaviorism and the Origins of Perceptual Psychology

Each theory reviewed suggests that motivation arises from a different drive or need within the individual. Goldstein was one of the original objectors to theories of motivation focusing on separate drives, since something in the individual had to then arbitrate the struggle among the drives.[20] Instead, Goldstein theorized that only one drive characterized an individual: the tendency to actualize self. The drive toward self-actualization can be regarded as a need (or set of needs) to express the personality, to fulfill tasks which seem within the individual's capacities. People seek situations in the environment that correspond to their ability to cope with them. Woodworth's emphasis on the value of performing a behavior for its own sake is qualified by Goldstein in the sense that such behavior must not "conflict with the 'needs' of the whole organism and the life situation."[21]

Explanations of motivation previously considered reflect successive theoretical developments within psychology. Theories emphasizing the potential of the environment to shape an individual's behavior are closely allied to behaviorism. A strict behaviorist denies the necessity to consider the existence of a mental process such as motivation since "No one can directly observe the motives, feelings, perceptions, thoughts, and memories of others."[22] Such a

theorist would hold that changing the environment will change people's actions, irrespective of their feelings.

> Behaviorism tends to assume that behavior is activated by specific primary or derived needs and that no learning occurs without the reduction or elimination of these needs.[23]

Tension reduction is the focus of the behaviorist; an orientation which corresponds particularly to consideration of physiological needs. Much of the theoretical base of behaviorism has resulted from laboratory experiments. To the extent the environment differs from a laboratory, where rewards are not automatically forthcoming for the "correct" behavior, other and broader means of explaining human actions must be considered. Goldstein's "holistic" theory rejects a single-minded emphasis on the environment to instead recognize the primacy of the individual *within* the environment. Self-actualization ultimately permits the individual to receive "rewards" from the image he has of himself, regardless of what may or may not be going on in the environment.

The Conflict Between Behaviorism and Perceptual Psychology

Goldstein's theory laid the foundations for perceptual psychology. The conflict between perceptual psychology and behaviorism centered on the role of the environment. If the environment controls an individual's behavior, then force and coercion are necessary to reconcile conflicting preferences in order to determine the "right" goals. At the same time, such manipulation closes the system to internal challenges and questioning that would lead to new, perhaps better, goals. Commitment to the existing set of goals creates rigidity.

The extent to which a person is at the behest of the environment is limited by the fact that "environments are not always amenable to manipulation."[24] Behavioral change can be left behind once the individual leaves his manipulating environment. Behavioral change can also be diminished if rewards or coercion are not continuous. If the cause of behavior is not the environment but perceptions, then the individual can supply his own rewards. He himself, rather than an outsider, *chooses* how he will evaluate his progress toward reaching a personally determined goal. The more adequate are his perceptions, the more efficient is his behavior. In general, the goal of the individual is the achievement of competence or self-actualization, but creativity, spontaneity, self-confidence, identification with others, and empathy are dimensions of this process. Self-actualization is a never-ending growth process.

In the perceptual framework, the individual's search for a personally determined adequacy becomes an "essentially positive view of motivation."[25] The individual chooses to perceive what he thinks will enhance his adequacy. The range of choices open to him allows for "a certain amount of slack within which choice may occur."[26] Furthermore, the nature of the abilities possessed by the individual can be modified by the choices he makes. The influence of the environment cannot be excluded entirely. The environment represents the experiences open to the individual which aid in his selection of perceptions. Perceptual psychology may be summarized as an approach

> to human relationships which seeks [to explain] change in behavior through change in perceiving rather than a direct attack on behavior itself. It emphasizes in practice techniques of communications, persuasion, learning and discovery rather than the employment of force, coercion, or various forms of manipulation.[27]

Learning

Perceptual psychology and behaviorism represent complex philosophies which suggest divergent directions for educators. Education was, in fact, an area of considerable concern to theorists. Previous sections have described the motivation behind learning, but to appreciate the differences in approach of the educators discussed, it is necessary to have in mind some understanding of the various forms learning can take. Differences in educational approaches are in large part a function of the type of learning which was viewed by the educator as most important or even in some sense fundamental to other kinds of learning.

Types of Learning

Learning can be defined as a prolonged change in capabilities "which is not simply ascribable to the process of growth."[28] Gagné classifies learning into several categories. The simplest kind of learning, *association*, is an involuntary response to an unconditional stimulus, such as fear or, in Pavlov's classic example, salivation. When the response to the stimulus is a specific, voluntary act (as opposed to the diffuse response represented by fear, for example), we are dealing with *stimulus-response* learning. Not only must the person make the connection between the stimulus and response, but he must learn to discriminate among other available stimuli and responses so that he makes the appropriate choices to begin with. Rewards or reinforcement are helpful in establishing this kind of learning. Once the person masters this form of learning, it is possible for him to build individual stimulus-response connections into a (meaningful) *chain*. *Discrimination* learning occurs

when similar stimulus-response connections are able to be retained by the individual. Confusion or forgetting hamper this process. *Concept learning* is more sophisticated than the previous types. Here, the learner groups together blocks of stimulus-response connections he has already learned. He is able to contrast this group with groups representing other concepts. The stimulus-response connections grouped together do not have to be highly similar to each other.

> A variety of stimulus situations must be presented incorporating the conceptual property to be learned in order that this property can become discriminated in its internally represented form.[29]

Rule-learning is the linkage of two or more concepts: If concept A, then concept B. The highest form of learning is *problem solving*. A new rule is thought out "that combines previously learned rules."[30] A definition is extended to cover a new situation.

Unlike the previous forms of learning, the lack of direction sometimes inherent in the development of a solution forces the learning to fall back on his own creativity and resources. The environment may constrain the solution but it does not dictate it. Forms of learning other than problem solving are to some degree already intrinsically meaningful to the learner. Conversely, problem solving may involve a "shot in the dark." The learner needs the confidence to pursue approaches which are unfamiliar or unlikely, but still may lead to a solution.

The Creation of Interest in Unfamiliar Subjects

Problem solving cannot occur until one has sufficient knowledge at least to begin defining the problem. Not all solutions require a

high degree of creativity. Some solutions are reached in an automatic manner, such as the solution for **x** in an equation problem from elementary algebra. In Gagné's model of the kinds of learning, specific stimulus-response connections provide the foundation for all other types of learning. In his work on the encouragement of new interests in the context of adult education, Thorndike focused on the development of judicious stimulus-response connections.[31] Inherent in his approach is the idea that the environment, in this case the classroom, shapes behavior.

Thorndike believed interests can be modified, and he uses as examples women who acquire an interest in sports from their families and men who become interested in children once they become fathers. (These examples, while sexually dated, *are* illustrative.) In these situations, interest is aroused by putting something which wasn't originally attractive (sports, children) with something which is already important to the individual (families, fatherhood). On a more general level, Thorndike states,

> To produce an interest in A, we should then try to maneuver the person into a situation, the response to which is an interest in A, or some behavior which will cause an interest in A.[32]

He labels this procedure "contiguity."

Another technique to arouse interest is associative shifting. Suppose one stimulus leads to a desirable response. By carefully pairing the original stimulus with a second stimulus, the response to the first stimulus can still be obtained. The goal for the educator is to create a situation where only the second stimulus is necessary to obtain the response. In shifting the emphasis on the stimuli, the educator must reward the response which occurs from the

paired stimuli and, later, the response resulting from the second stimulus, by itself.

> It is applicable in adult education in such cases as the development of interest in obtaining a job, or the development of an interest in the principles of economics and government by shift from the interest in some crises in business.[33]

Interest may also be fostered through repetition of an activity. Repetition gives a person a chance to reduce any false expectations he has about the activity. While this approach may be useful in overcoming the timidity of persons toward a certain subject, repetition may expose real or imagined weaknesses in their ability. The novelty of the subject may wear off. The success of repetition as a teaching tool probably depends heavily on the trade-off between incurring boredom and encouraging self-confidence.

What if it is necessary for a person to learn something which he does not like in order to do something that he does like? Thorndike's answer is that time spent on making an activity attractive may increase total learning time--so much so that an educator should assume a person's initial interest would be a sufficient impetus by itself; and if this assumption doesn't hold, "he may go without the learning or be bribed to do it by intrinsic or extrinsic attractions, according to what seems best in each particular case."[34]

Rewards are a critical variable in Thorndike's system of education. One role of the educator as Thorndike sees it is to make "suggestions" and reward the ideas that consequently follow from his students. Not only should dramatic outcomes receive praise, but also the performance of necessary routines. Stress on maximum enjoyment and attendance can be misplaced, however, resulting in a minimum amount of learning. The *best* procedure does not involve rewards.

> If we know the interests a person has and can adapt the subjects of instruction to these interests without loss in other respects we have a gain in interest at no cost.[35]

Lengthy course descriptions may or may not be advisable. *No* course description at all gives the participants a chance to evaluate their liking and ability for the work by actually performing the first unit of it. *Some* course description would be useful in communicating the abilities needed for (later segments of) the course, and the changes in the person that will result from (specified) participation. Thorndike suggests asking participants what their strengths are. Such information could be used in extemporizing courses "to establish living values--courage, adventure, curiosity, and a determination to be oneself."[36] At the end of the program, the educator should not forget that adults will be very interested in an evaluation of the progress they have made.

Thorndike also discusses practices which discourage the development of interest. "The most common error in teaching adults is to assign too much and to expect more rapid learning than is possible for the student concerned."[37] Other undesirable practices are changing tasks before the student has a chance to appraise and enjoy his accomplishment on the first task, and "making those who have learned listen in boredom to teaching which helps only those who have not."[38]

In general, Thorndike's approach emphasizes the necessity of flexibility in the development of a public policy program. A prefabricated program cannot optimally take account of the interests, backgrounds, and ability of the participants--and it is these things, after all, which are their best "tools" for community development. At the same time, efforts should be made to insure against

unrealistic expectations from the participants. One way to do this would be to encourage presentations by those, either within the class or outside, who have been previously involved with community development. Alternative methods of involvement with public policy should be stressed, even ones so simple as contacting local media to encourage more coverage of meaningful issues. Not only should flexibility characterize the public policy program itself, but it should be descriptive of the participants' approach to issues when they complete the program.

The need for program flexibility is also apparent in the context of contiguity or associative shifting. To utilize fruitfully these concepts, the program leader should determine what interests the participants already have in addition to public policy interests. Suppose a large number of participants were interested in psychology. Associative shifting could be used by gearing part of the program toward psychological concepts (i.e., Skinnerian psychology) and what the operation of these concepts means for various public policy issues. Other possible topics of interest have fairly clear-cut links with public policy issues: an interest in children with day-care centers, an interest in retirement with reformation of Social Security, for example. Much depends on the creativity of the educators and the growth of their experience with public policy in developing the ability to translate general public policy issues to topics which are directly relevant to participants. Contiguity suggests the use of field trips to local industries or governmental offices will generate interest in selected public policy issues through people's interest in their immediate environment.

Initially interest should be encouraged by building links between the interest participants already have and the public policy topics to be covered. If the Extension Service does not allow participants some voice in program formulation, it might be indirectly channeling some community development into certain directions which may not reflect the values of the clientele. The program leader might ask participants about the extent of their previous background with community development to surmise whether or not they will be at ease with the topics presented, or survey a previous class.

Thorndike's main concern is with initiating or sustaining an activity. When he mentions rewards, it is in the context of an outsider's evaluation and/or praise. Thorndike wants the person to *like* what he is doing, but the emotional involvement is not overtly considered in terms of a more sophisticated goal of personal growth. The suggestions put forth by Thorndike offer insight into broadening adult educational interests--which was his purpose--but problem solving activities which presuppose the existence of both interest and knowledge require a different approach.

Challenges to Thorndike

Combs and Syngg have an educational philosophy opposed to Thorndike's emphasis on reward.[39] They suggest that an educational process which disregards emotion and feeling--both positive and negative--will produce a teacher who will favor "only the facts" over the development of personal meaning. When praise becomes a crucial variable in the manipulation of interest, the students respond to the artificial environment of the classroom and not to the subject matter itself.

Instead, Combs and Syngg offer a model of the educational process where judgment and evaluation are at a minimum. Questions of purpose and values predominate: "'What do I think?' 'What seems to me to be so?'"[40] Then the act of ranking goals and values according to their importance clarifies the kind of adequacy the individual wishes to achieve. This procedure also serves to direct attention to a few crucial areas of potential improvement. The emphasis should be on immediately achievable goals: What can I do *now*? Accomplishing one of these goals is a self-administered boost to self-esteem, and probably much more important than an outsider's praise in its effects.

One desirable goal is an openness to change. Its achievement is facilitated by an

> attitude of expecting to make mistakes, for the freedom this gives the individual to break loose from established patterns and to experiment and try.[41]

Encouragement replaces praise.

To begin a process of change the individual must be able to see where he currently stands so that he can realistically decide where he wants to go next. This requirement of self-acceptance applies equally to both teacher and student. Before a teacher can accept his students, he must first be able to see what *he* is without passing judgment. The openness of the teacher to his own perceptions becomes a model for the students to emulate.

An instructor who responds to the participants as an equal will be more likely to retain or foster an attitude of independence among them because he does not set himself up as an authoritarian figure. Of course, some students may prefer to treat the instructor with great respect and deference, and the instructor may never succeed in changing their attitudes toward him. If the goal of a program of

public policy education is to encourage persons to be self-starters in tackling the problems of the community, perhaps changing the attitude toward the instructor is secondary, although helpful, to aiding the participants to trust their own judgment. The extent to which an instructor is not held in awe may be useful information as an indicator of the autonomy of the participants.

Facts which are learned are liable to be forgotten, and may be easily looked up again when this happens. But an attitude of confidence, regardless of the fact that it is acquired in the classroom, can permeate other areas of the participants' lives, areas which may be the sources of potential community improvements.

An emphasis on the personal meaning of an issue to the participant rather than the "facts" creates an atmosphere where the participant evaluates issues using his needs and desires as a reference-point. When events have personal meaning for an individual, their effect upon behavior is increased. Clarifying the personal meaning that the student is directly or indirectly expressing is one way a teacher can help students explore their perceptions. Listening intently to what students are saying encourages the students to examine their convictions, attitudes, beliefs, etc. Rogers, another proponent of self-directed learning, suggests the teacher should "validate" what the student is saying by making a comment which indicates he understands and sees (as much as possible) the participant's point of view.[42]

The Rogerian Model of Education

Rogers has described a model of the educational process similar to that used by Combs and Syngg. He proceeds from the philosophy

that the role of education is to accustom people to *change*. Teachers should not "lead" students through a morass of facts. Instead, they should facilitate self-directed learning by the kind of interpersonal relationship they attempt to create with the student. This kind of relationship establishes freedom for the student to choose his own goals and the means to reach them. The teacher (or, in Rogers' terminology, facilitator) *trusts* the student in this endeavor, for the choices he makes often represent a wisdom the teacher does not have about the situation being confronted. In this respect, Rogers' philosophy may be particularly applicable to public policy education, as it is impossible for a program leader to be intimately acquainted with more than a few policy issues in a community.

In Rogers' system, the needs of the individual dominate the requirements of a pre-set curriculum. To prevent freedom from appearing as chaos to the students, Rogers advocates:

> enough limits and requirements which can be perceived as structure, so that students can comfortably start to work. It is only as the course progresses that they realize that each requirement separately and all of them together are simple different ways of saying, 'Do exactly what you wish to do in this course, and say and write exactly what you think and feel.' But freedom seems less frustrating and anxiety-laden when it is presented in somewhat conventional sounding terms as a series of requirements.[43]

When the student is trusted to pursue her own goals in her own way, the role of the program leader as evaluator disappears. Lesser tasks, assigned readings, prepared lectures or other forms of passive learning are replaced by a system where the leader "functions as counselor, lecturer, and advisor, a person with experience in the field,"[44] whatever is most meaningful to the students. The trust

the leader has in the students extends to cover situations where both positive and negative feeling toward learning occur. The leader tries to accept whatever attitudes arise from the group and to communicate an empathetic understanding. In so doing, he acknowledges the reality of the attitudes and, consequently, "he helps to bring them into the open for constructive understanding and use by the group."[45]

In turn, the leader is herself toward the group. When she is unable to have the perspective of her students, or value the manner in which they are acting, she communicates this to them, rather than hiding behind a pseudoempathetic or caring facade. To the extent that the leader expresses *genuine* feelings, she provides a setting similar to that which will confront participants when they involve themselves in community action. Rogers cautions that achievement of realness or genuineness is a gradual process. The leader must first be aware of what she is thinking or feeling before she can communicate it to the participants. Otherwise, when she expresses her feelings, they may emerge as judgments or be attributed to persons other than herself.

Rogers notes that these desirable behaviors do not appear suddenly. Instead, they come about through taking risks, through *acting* on tentative hypotheses.[46] The quality of the interpersonal relationship between the leader and the participant establishes the degree of *significant* learning that takes place; that is, learning that prepares a person to cope with change through reliance on his own ability and initiative.

Rogers echoes the emphasis placed by Combs and Syngg on confronting the learner with issues that are personally meaningful to him.

Othersise, the student will be hopelessly bewildered by the "freedom" given him to direct his own learning. A certain amount of confusion will characterize the student's initial contact with self-directed learning, but beyond that they will often "seize upon this as an opportunity and use it far beyond their expectations."[47] Rogers adds,

> Since in general students are so insulated from problems, it may be necessary to confront them with situations which will become real problems to them.[48]

Freedom is not for everyone. Rogers admits some students may find his unconventional approach to learning disturbing. As an alternative, he suggests dividing the class into two groups to correspond to the different modes of teaching, and allowing students flexibility in switching from one to the other. Insofar as the public policy workshops are concerned, utilization of this suggestion would depend on the kind of persons who enrolled in the courses. Persons who are uncomfortable with public policy may take refuge in a conventional, i.e., teacher-dominated, approach which does little to encourage their leadership capacities. At some point in the course of an individual workshop, all members should be actively participating in group discussions in order to practice "taking a stand" on an issue. For as Rogers notes (quoting Skinner): "To acquire behavior the student must engage in behavior."[49]

As one of its basic goals, the model of the educational process advocated by Rogers discourages any evaluation of the student by someone other than himself. Under these circumstances, the learner does not need to turn to anyone (especially the program leader) for "corroboration of his judgment."[50] Instead of evaluation, one of the functions of the facilitator is

> to elicit and clarify the purposes of the individuals in the class as well as the more general purposes of the group. . .There is no need for him to manufacture one purpose in the group if such a unified purpose is not there.[51]

When participants leave the public policy workshops, they should have a clearer idea of the values that are important to them as well as the kind of goals they wish to achieve. (The former may well be more important than the latter.) Depending on the workshop, the program leaders may incur difficulty in clarifying individual goals at the expense of the time devoted to the group. To overcome this, a leader could arrange individual conferences while other members are participating in group discussions. In this or similar situations, older and more experienced students could be made available as consultants for beginning students.[52]

The educational model presented by Rogers has the same focus as that advocated by Combs and Syngg. Both models emphasize the importance of *change*. Rogers views it as an inevitable part of life, and therefore of learning; Combs and Syngg see the development of changes in attitudes, beliefs, or perceptions as underlying the learning of new approaches or actions. In contrast, Thorndike's model is static, concerned with the generation of sufficient interest to get a person through or into a class. Since public policy-making is characterized by a certain amount of flexibility, uncertainty, and instability by the very nature of the democratic process, an authoritarian model such as Thorndike's must be, on the whole, rejected. The only time when it would be helpful is when participants have very little knowledge of or experience with public policy activities. Beyond that situation, a student-directed approach is

necessary to achieve increases in self-confidence and leadership capabilities among the participants.

The theoretical section left several questions of application unanswered. One question involves the early identification of persons who are confident vs. those who are not, so as to structure the program appropriately. The theoretical section indicated recognition of personal needs contributed significantly to the learning experience. Needs do not always correspond with goals. How does the leader recognize a conflict and point out its existence to the workshop participant? These questions were posed specifically during the following interview, and led into material having implications for the conduct of the workshop.

Interview

Ms. Patricia Silea is former Director of the Michigan Women's Commission, an organization which has had a demonstrated commitment to involving women in particular in public policy activities. From the discussion with her came several ideas for the initial sessions of the public policy workshops. For example, the first session could explore definitions of leadership roles and citizen participation. The purpose in answering the question, "What is a leader?" would be to help participants recognize that behind-the-scenes situations may be a valuable way for a woman to exert leadership behavior while avoiding the spotlight which may make her uncomfortable. Leadership behavior and citizen participation must be seen in the context of varying levels of aspiration in order to facilitate comfortable and meaningful activity. Women must be given the option for finding different levels of aspiration.

Ms. Silea suggested participants could be given a list of public policy and/or community development activities and asked how comfortable they would feel performing each one. For example, how comfortable would they feel calling their legislator or contacting the media? Reticence on the part of participants may be due to a lack of knowledge. Another technique to discern comfortable from uncomfortable persons is to present participants with simple problems that require a sequence of steps for solution. The program leader could ask participants how they would handle the situation. Do participants know how to set priorities, draft letters, get necessary phone numbers, or even obtain accurate information? If a letter to the editor is required, *how* do you write it? Participants could role-play a situation such as getting past a secretary. Comfortable and uncomfortable persons are classified by a good performance vs. missing the point. Afterwards, appropriate procedures could be discussed.

At the same time the idea could be communicated to participants that there is nothing wrong with failure. If the program leader believes that a participant's aspirations are too high, she/he should refrain from comment. For the participant to fail on her own is less destructive than to tell her she can't succeed. If she "gets in over her head", she will decide for herself her aspirations were too high. This procedure of coping with one's own failure preserves individual autonomy. If criticism is necessary, it should be kindly in context, and never directed to the person.

If criticism has little place in a public policy workshop, so does praise. Ultimately, participants will perceive "excessive" praise as manipulative, and will automatically discount it. Instead,

the program leader should be honest in a way respectful to the individual. This may require some preliminary discussion (perhaps a whole session) on self-development and leadership. One of the ideas to be brought out in the discussion is that participants should learn not to take things too personally; a leadership role requires that a person's feelings should not get hurt too easily. This is particularly important for women who are attempting public policy activity for the first time.

Summary

This chapter reviewed several areas of psychology for their implications for conducting a program of public policy education. Theories which dealt with the influence of the environment on a person's behavior were contrasted with theories emphasizing the importance of individual perceptions as a guide to behavior. While perceptual theories offered insight into ways of developing attitudes which would increase comfort with public policy, an interview with a public policy educator provided examples of specific behaviors which could be used to monitor the attitudes of workshop participants.

ENDNOTES

1. Harry Fowler, *Curiosity and Exploratory Behavior,* (New York: The MacMillan Company, 1965), p. 114.

2. *Ibid.*, p. 30.

3. *Ibid.*, p. 175.

4. J. S. Bruner, J. Matter, and M. L. Papanek, "Breadth of Learning as a Function of Drive Level and Mechanization," (*Psychological Review* 62, January, 1955): 1-10.

5. *Ibid.*, p. 9.

6. Fowler, p. 59.

7. Robert A. Woodworth, *Dynamics of Behavior,* (New York: Holt, Rinehart, and Winston, 1961), p. 88.

8. *Ibid.*, p. 91.

9. *Ibid.*, p. 88.

10. In terms of the "immediate reward of exploration", satiation has occurred.

11. Paul Young, "The Role of Hedonic Processes in Motivation," in *Nebraska Symposium on Motivation,* ed. M. R. Jones (Lincoln: University of Nebraska Press, 1955), p. 193-238.

12. *Ibid.*, p. 202.

13. Discussed in Woodworth, p. 123.

14. Woodworth, p. 124.

15. Woodworth, p. 126.

16. Woodworth, p. 258.

17. Woodworth, p. 124.

18. Robert H. White, "Motivation Reconsidered: The Concept of Competence," (*Psychological Review* 66, September 1959): 297-331.

19. *Ibid.*, p. 323.

20. Kurt Goldstein, *Human Nature in the Light of Psychopathology*, (Cambridge: Harvard University Press, 1947).

21. *Ibid.*, p. 149.

22. Wilbert James McKeakie and Charlotte Lackner Doyle, *Psychology, Second Edition* (Reading, Massachusetts: Addison-Wesley, 1970), p. 6.

23. Rom Markin, *Consumer Behavior: A Cognitive Orientation*, (New York: MacMillan, 1974), p. 108.

24. Arthur W. Combs and Donald Syngg, *Individual Behavior: A Perceptual Approach to Psychology*, 2nd ed., (New York: Harper & Row, 1959), p. 316.

25. *Ibid.*, p. 320.

26. *Ibid.*, p. 349.

27. *Ibid.*, p. 312.

28. Robert M. Gagné, *The Conditions of Learning*, 2nd ed., (New York: Holt, Rinehart and Winston, 1970), p. 3.

29. *Ibid.*, p. 53.

30. *Ibid.*, p. 59.

31. Edward L. Thorndike, *Adult Interests*, (New York: The MacMillan Company, 1935).

32. *Ibid.*, p. 21.

33. *Ibid.*, p. 28.

34. *Ibid.*, p. 53.

35. *Ibid.*, p. 43.

36. *Ibid.*, p. 125.

37. *Ibid.*, p. 141.

38. *Ibid.*, p. 148.

39. Combs and Syngg, *op cit.*, p. 357.

40. *Ibid.*, p. 351.

41. *Ibid.*, p. 357.

42. Carl R. Rogers, *Freedom to Learn,* (Columbus, Ohio: Charles E. Merrill, 1969), p. 63.

43. *Ibid.*, p. 73.

44. *Ibid.*, p. 164.

45. *Ibid.*, p. 164.

46. *Ibid.*, p. 115.

47. *Ibid.*, p. 130.

48. *Ibid.*, p. 130.

49. *Ibid.*, p. 140.

50. *Ibid.*, p. 162.

51. *Ibid.*, p. 164.

52. *Ibid.*, p. 132.

CHAPTER 5

CONCLUSIONS

In several different ways this study has aimed to provide direction for project PACE. The study began with a verbal model of the implications that various attitudes toward public policy would have for behavior in policy-oriented situations. The variables of this "behavior model", comfort, knowledge, and knowledge satisfaction, were the basis for two surveys which were used to infer the attitudes and behaviors of those individuals who would serve as PACE participants and leaders. While knowledge of public policy issues and satisfaction with that knowledge were indeed found to be informative and useful variables, comfort emerged as the variable critical to sustain interaction with public policy. This finding necessitated examination of theories of learning and motivation to determine methods by which comfort with public policy and its potential dimension, leadership behavior, could be sustained and encouraged.

Unless a person is comfortable with public policy, he or she is unlikely to engage in leadership behavior, much less acquire any requisite public policy information. In order for the PACE goal of encouraging leadership behavior related to community development to be realized, the PACE program leader should attempt to single out "comfortable" participants and devote effort to them at the expense of other, less comfortable participants. The most comfortable persons should be chosen for leading discussions and giving presentations.

The survey results suggest that the relatively less comfortable participants will not object to such favoritism and may even prefer to avoid the spotlight. At the same time, however, the different forms that leadership behavior can take should be clarified within the workshop sessions so that the less comfortable participants can feel significantly involved with important public policy activities.

The interview with Ms. Patricia Silea, former Director of the Michigan Women's Commission, noted several means by which uncomfortable persons can make contributions to community development. Knowing how to write a letter to the editor or contacting an elected representative may be more subdued activities than giving presentations, but they also may be needed and utilized more frequently in community development than skills in delivering presentations.

The survey results also indicated that the College Week respondents and Extension staff surveyed would respect public policy presentations which are not erudite nor esoteric. This attitude implies that the Extension staff participating in PACE do not have to prepare elaborate public policy talks for the citizens who are part of the program. Another implication is that the citizens who eventually prepare public policy presentations on their own either as part of their involvement in the PACE program or as part of community leadership will probably not be subjecting themselves to rigorous and inhibiting standards.

How can a PACE leader recognize a comfortable person? One method is to note the extent of previous involvement in public policy or other community-related activities. Combined with responses to some of the comfort questions used in this study, useful planning information for the format of the workshops could be obtained. Among

the items most useful in discerning the comfort of persons, according to the results of statistical analysis, were: "If I did not know the answer to someone's question on public policy, I would know where to find it", "I find public policy confusing", and "I consider my knowledge of public policy better than the average person's." Of course, either of the versions of the questionnaire used in the study could also be used, as they both "held up" under detailed statistical examination. It is possible that everyone in the PACE workshop would be quite comfortable with public policy, in which case all of them should have a chance at leading discussions or making presentations.

A review of the theoretical literature on learning and motivation contributed several insights into the conduct of the PACE workshops. Regardless of whether a PACE leader is dealing with comfortable or uncomfortable persons, an attitude of respect and trust toward them should help to reinforce their confidence and autonomy. Honesty in the interactions between the PACE leader and participants can serve as a learning device by duplicating the reality which participants will confront when actually working in community development.

Another way of increasing the success of project PACE in developing community leaders is to change and/or increase the public relations activities of the Cooperative Extension Service. The results on the question requesting the name of the College Week respondent's favorite Cooperative Extension program of the past year drew a sizable percentage of "don't know of any", "didn't go" or, most appalling, "don't belong" responses. What makes these results all the more dismaying is the fact that College Week is itself a

program offered by the Cooperative Extension Service. While it should go without saying that citizens won't attend PACE workshops unless they are made aware of them, the effectiveness of word-of-mouth advertising by those citizens who do attend will be weakened if they don't understand which agency is behind the workshops.

While the evidence is at best suggestive, the Extension staff's performance on the opportunity cost, planning, and elasticity questions implies that a stronger correspondence needs to be made bewteen specific public policy issues and the concepts they represent. While the College Week sample was not asked questions of a conceptual nature, there is some evidence that this conclusion also applies to them, and probably, too, to future PACE participants. Certainly, the PACE participants should be given information which will correct mistaken impressions about the extent of monopolization or unionization within the U.S. economy. Overestimation of institutional control may lead to an underestimation of the power of individuals to effect public policies.

More information on public policy issues and practice in making public policy presentations would appear to fulfill a latent demand within the Extension staff surveyed.

Further research should determine the extent to which the results obtained in this study hold for socio-economic groups other than those represented by College Week. An example would be the rural poor. A study more elaborate than the present one might devise some means of correlating responses to the public policy attitude questionnaires with the extent and nature of involvement in public policy activities. This would generate information on the usefulness of the instruments of this study for behavior prediction.

BIBLIOGRAPHY

BIBLIOGRAPHY

Bruner, J. S.; Matter, J.; and Papanek, M. L. "Breadth of Learning as a Function of Drive Level and Mechanization." *Psychological Review* 62 (January, 1955): 1-10.

Combs, Arthur W., and Syngg, Donald. *Individual Behavior: A Perceptual Approach to Psychology*. 2nd ed. New York: Harper & Row, 1959.

Conover, W. J. *Practical Nonparametric Statistics*. New York: Wiley, 1971.

Cronbach, L. J. "Coefficient Alpha and the Internal Structure of Tests." *Psychometrika* 16 (September, 1951): 297-334.

De Fleur, Melvin L., and Westie, Frank R. "Attitude as a Scientific Concept." In *The Consistency Controversy*, pp. 23-43. Edited by Allen E. Liska. New York: John Wiley & Sons, 1975.

Edwards, Allen L. *Techniques of Attitude Scale Construction*. New York: Appleton-Century-Crofts, Inc., 1957.

Erlich, Howard J. "Attitudes, Behavior, and the Intervening Variables." In *The Consistency Controversy*, pp. 133-145. Edited by Allen E. Liska. New York: John Wiley & Sons, 1975.

Fendrich, James M. "A Study of Association Among Verbal Attitudes, Commitment, and Overt Behavior in Different Experimental Situations." In *The Consistency Controversy*, pp. 95-108. Edited by Allen E. Liska. New York: John Wiley & Sons, 1975.

Fowler, Harry. *Curiosity and Exploratory Behavior*. New York: The MacMillan Company, 1965.

Gagné, Robert M. *The Conditions of Learning*. 2nd ed. New York: Holt, Rinehart and Winston, 1970.

Goldstein, Kurt. *Human Nature in the Light of Psychopathology*. Cambridge: Harvard University Press, 1947.

Kiesler, Charles A.; Collins, Barry E.; and Miller, Norman. *Attitude Change*. New York: John Wiley & Sons, 1969.

Liska, Allen E. "Introduction." In *The Consistency Controversy*, pp. 1-20. Edited by Allen E. Liska. New York: John Wiley & Sons, 1975.

Markin, Rom. *Consumer Behavior: A Cognitive Orientation*. New York: MacMillan, 1974.

McKeakie, Wilbert James, and Doyle, Charlotte Lackner. *Psychology, Second Edition*. Reading, Massachusetts: Addison-Wesley, 1970.

Rogers, Carl R. *Freedom to Learn*. Columbus, Ohio: Charles E. Merrill, 1969.

Rummel, R. J. "Understanding Factor Analysis." *Journal of Conflict Resolution* 11 (December, 1967): 444-480.

Selltiz, Claire; Wrightsman, Lawrence D.; and Cook, Stuart W. *Research Methods in Social Relations*. 3rd ed. New York: Holt, Rinehart, and Winston, 1976.

Thorndike, Edward L. *Adult Interests*. New York: MacMillan, 1935.

Tittle, Charles R., and Hill, Richard J. "Attitude Measurement and Prediction of Behavior: An Evaluation of Conditions and Measurement Techniques." In *The Consistency Controversy*, pp. 109-122. Edited by Allen E. Liska. New York: John Wiley & Sons, 1975.

White, Robert H. "Motivation Reconsidered: The Concept of Competence." *Psychological Review* 66 (September, 1959): 297-333.

Wicker, Allen W., and Pomazal, Richard J. "The Relationship Between Attitude and Behavior as a Function of Specificity of Attitude Object and Presence of a Significant Person During Assessment Conditions." In *The Consistency Controversy*, pp. 123-129. Edited by Allen E. Liska. New York: John Wiley & Sons, 1975.

Woodworth, Robert A. *Dynamics of Behavior*. New York: Holt, Rinehart and Winston, 1961.

Young, Paul. "The Role of Hedonic Processes in Motivation." In *Nebraska Symposium on Motivation*, pp. 193-238. Edited by M. R. Jones. Lincoln: University of Nebraska Press, 1955.

APPENDICES

APPENDIX A

COLLEGE WEEK QUESTIONNAIRE

If you have filled out this questionnaire already in a College Week Workshop, Please check here _____.

1976 COLLEGE WEEK
COOPERATIVE EXTENSION SERVICE
MICHIGAN STATE UNIVERSITY

Workshop_____ Date_____

I. There are numerous things which affect the quality and quantity of our lives. Our schools, jobs, housing, environment, food and related issues all involve public policy choices.

Please indicate your degree of agreement with each of the following statements by circling how you feel about public policy.

	Completely	To a Great Extent	To Some Extent	To a Little Extent	Not at All
1. I would feel very comfortable discussing public policy with a group of acquaintances.	1	2	3	4	5
2. I do not know as much about public policy as I would like to know.	1	2	3	4	5
3. If I did not know the answer to someone's question on public policy, I would know where to find it.	1	2	3	4	5
4. Public policy changes so rapidly it is hopeless to even begin to keep up with it.	1	2	3	4	5
5. I consider my knowledge of public policy better than the average person's.	1	2	3	4	5
6. Michigan public schools receive most of their financial resources from millage voted by residents of the school district.	1	2	3	4	5
7. I would find public policy more interesting if I understood it better.	1	2	3	4	5
8. I enjoy discussions of public policy.	1	2	3	4	5
9. Giving speeches or presentations on public policy should be reserved for highly skilled specialists.	1	2	3	4	5
10. Michigan's economy has too many jobs and too few people available to fill them.	1	2	3	4	5
11. I avoid participating in discussions of public policy because I am afraid of revealing my ignorance.	1	2	3	4	5
12. My knowledge about public policy has definitely enriched my life.	1	2	3	4	5
13. Most of the zoning decisions are currently made by the state government.	1	2	3	4	5
14. Giving speeches or presentations on public policy is no more difficult than for anything else.	1	2	3	4	5
15. I am sometimes afraid to ask questions about public policy because I feel I should already know the answer.	1	2	3	4	5
16. The major producers of food in Michigan are corporate farms.	1	2	3	4	5
17. I am satisfied with my knowledge of public policy.	1	2	3	4	5
18. Social security is financed from funds received from the Federal income tax.	1	2	3	4	5
19. I would need very much preparation before I could feel comfortable making presentations on public policy.	1	2	3	4	5
20. My knowledge of public policy has been adequate for my needs.	1	2	3	4	5
21. The Federal government through Conrail is taking over all Michigan railroad lines.	1	2	3	4	5
22. I find public policy confusing.	1	2	3	4	5
23. Over 50% of the workers in the United States belong to labor unions.	1	2	3	4	5

II. What are your three most frequent sources of public policy information? Please rank them in order from 1 to 3. Also, circle the ones you spend more than 3 hours per week on.

A. regularly scheduled television news programs ____
B. television specials ____
C. weekly news magazines ____
D. other magazines ____
E. newspapers ____
F. radio news programs ____
G. special radio programs ____
H. community activities (meetings of clubs and other organizations) ____
I. newsletters ____
J. formal coursework ____
K. friends and relatives ____
L. other (please name) ____

III. What is the greatest limitation on your acquisition of public policy knowledge?

insufficient time _____
insufficient interest _____
do not understand public policy _____
other (please describe) _____

IV. What public policy topics are you most interested in?

V. What kinds of programs or services related to public policy would you like to have in your community?

VI. Which programs on public policy sponsored by the Cooperative Extension Service in the last year did you most enjoy?

VII. Please check the ONE that best describes where you live:

A. ____ On a farm
B. ____ In the country, but not on a farm.
C. ____ In a town or village with less than 2,500 people.
D. ____ In a town or city with 2,500 to 10,000 people.
E. ____ In a city with 10,000 to 50,000 people.
F. ____ In a city with 50,000 to 100,000 people.
G. ____ In a city with over 150,000 people.

VIII. Check your own age group.

A. ____ Under 20
B. ____ 20-24
C. ____ 25-39
D. ____ 30-39
E. ____ 40-49
F. ____ 50-59
G. ____ 60-69
H. ____ Over 70

IX. Check your educational background:

A. ____ Some high school
B. ____ High school graduate
C. ____ Some college
D. ____ College graduate
E. ____ Other training

X. Do you work outside the home?

A. ____ NO
B. ____ Part Time
C. ____ Full Time

If you would be interested in the results of this survey, please contact:

Julie A. Hogeland
33 Agriculture Hall
Michigan State University

APPENDIX B

COVER LETTER FOR EXTENSION QUESTIONNAIRE

MICHIGAN STATE UNIVERSITY

DEPARTMENT OF AGRICULTURAL ECONOMICS
AGRICULTURE HALL

EAST LANSING · MICHIGAN · 48824

March 4, 1977

Dear Extension Staff Member

Enclosed is a questionnaire on attitudes toward public policy education. Results from this survey will be used in conjunction with a study being conducted by Julie Hogeland as part of her master's thesis. We will also be using data collected from a survey of participants in College Week. That survey assessed participants' attitudes toward public policy activities, the scope of their knowledge about public policy topics, and the extent of their satisfaction with that knowledge. The study now needs comparable information on extension staff who may at some future time teach or otherwise interact with the Public Affairs Community Education program (PACE).

As an educator at a land-grant institution, you are aware of the importance of research in carrying out our mission. Therefore, we would appreciate your completing the enclosed questionnaire and returning it by March 14 if possible. Questionnaires may be returned anonymously in the postage-free envelopes provided. If you are already an active participant in the PACE program, please check the upper left hand corner of the questionnaire. There is no need for further identification.

Sincerely

Collette Moser

Collette Moser
Assistant Professor
Agricultural Economics
Specialist, Public Policy

CM/JH/jh

encl.

APPENDIX C

EXTENSION QUESTIONNAIRE

____I am an active participant
in PACE.

PUBLIC POLICY ATTITUDES

Return Questionnaire to:
Dr. Collette Moser
Ag Econ
33 Ag Hall, MSU

Please indicate your degree of agreement with each of the following by circling how you feel about public policy.

	COMPLETELY	TO A GREAT EXTENT	TO SOME EXTENT	TO A LITTLE EXTENT	NOT AT ALL.
1. I would feel very comfortable discussing public policy with a group of acquaintances	1	2	3	4	5
2. When land is taken under eminent domain, "just compensation" to the owner is usually the value the property assessed for tax purposes.	1	2	3	4	5
3. I do not know as much about public policy as I would like to know.	1	2	3	4	5
4. If I did not know the answer to someone's question on public policy I would know where to find it.	1	2	3	4	5
5. The age of the average American has been decreasing over the last five years.	1	2	3	4	5
6. Public policy changes so rapidly it is hopeless to even begin to keep up with it.	1	2	3	4	5
7. Any move toward the formulation of a national plan to help stabilize and control the economy would represent a move toward too much interference by government in the lives of private citizens.	1	2	3	4	5
8. I consider my knowledge of public policy better than the average person's.	1	2	3	4	5
9. Michigan public schools receive most of their financial resources from millage voted by residents of the school district.	1	2	3	4	5
10. I would find public policy more interesting if I understood it better.	1	2	3	4	5
11. The Soviet Union is the world's major producer and exporter of grain.	1	2	3	4	5
12. I enjoy discussions of public policy.	1	2	3	4	5
13. Giving speeches or presentations on public policy should be reserved for highly skilled specialists.	1	2	3	4	5
14. Michigan's economy has too many jobs and too few people available to fill them.	1	2	3	4	5
15. I avoid participating in discussions of public policy because I am afraid of revealing my ignorance.	1	2	3	4	5
16. Disease is the single largest contributor to the high death rate of children in developing countries.	1	2	3	4	5
17. My knowledge about public policy has definitely enriched my life.	1	2	3	4	5
18. Most of the zoning decisions are currently made by the state government.	1	2	3	4	5
19. Giving speeches or presentations on public policy is no more difficult than for anything else.	1	2	3	4	5
20. I am sometimes afraid to ask questions about public policy because I feel I should already know the answer.	1	2	3	4	5
21. The major producers of food in Michigan are corporate farms.	1	2	3	4	5
22. I am satisfied with my knowledge of public policy.	1	2	3	4	5
23. Social security is financed from funds received from the Federal income tax.	1	2	3	4	5
24. I would need very much preparation before I could feel comfortable making presentations on public policy.	1	2	3	4	5
25. Many persons seek employment because the wages they expect to receive are greater than the value of alternative uses of their time.	1	2	3	4	5
26. My knowledge of public policy has been adequate for my needs.	1	2	3	4	5
27. The Federal government through Conrail is taking over all Michigan railroad lines.	1	2	3	4	5
28. I find public policy confusing.	1	2	3	4	5
29. Zoning is an example of the police power to direct land use.	1	2	3	4	5
30. Over 50% of the workers in the United States belong to labor unions.	1	2	3	4	5
31. Food supply and demand are elastic.	1	2	3	4	5
32. One of the ways for government to determine appropriate anti-recession expenditures is to ask businessmen to indicate their production plans for the coming year.	1	2	3	4	5
33. Under the social security program, the taxes collected from persons presently working are used to finance those who are currently retired.	1	2	3	4	5
34. Approximately 25% of the cost of processed food is due to processing and distribution cost.	1	2	3	4	5

APPENDIX D

CROSSTABULATION TABLES FOR THE TEST OF THE BEHAVIOR MODEL

Hypothesis 1: As comfort with public policy increases, a person's esteem for public policy will increase.

Tested by using aggregated comfort questions and the question, "My knowledge about public policy has definitely enriched my life."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Enriched	135 88.2 75.8	18 11.8 45.0	150 70.2
Not Enriched	43 66.2 24.2 19.7	22 33.8 55.0 10.1	65 29.8
Column Total	178 81.7	40 18.3	218 100.0

χ^2 = 13.4 with 1 d.f.
Significance = .0003

Hypothesis 2: As comfort with public policy increases, a person's enjoyment of public policy discussions will increase.

Tested by using aggregated comfort questions and the question, "I enjoy discussions of public policy."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Enjoy	155 89.1 87.1 71.1	19 10.9 47.5 8.7	174 79.8
Don't Enjoy	23 52.3 12.9 10.6	21 47.7 52.5 9.6	44 20.2
Column Total	178 81.7	40 18.3	218 100.0

χ^2 = 28.3 with 1 d.f.
Significance = .0000

Hypothesis 3: As comfort with public policy increases, a person's feeling of being overwhelmed by public policy will decrease.

Tested by using aggregated comfort questions and the question, "Public policy changes so rapidly it is hopeless to even begin to keep up with it."

Crosstabulation Results

Row Pct Col Pct	Comfort	Not Comfort	Row Total
Not Overwhelmed	156 88.6 87.6 71.6	20 11.4 50.0 9.2	176 80.7
Overwhelmed	22 52.4 12.4 10.1	20 47.6 50.0 9.2	42 19.3
Column Total	178 81.7	40 18.3	218 100.0

χ^2 = 27.4 with 1 d.f.
Significance = .0000

Hypothesis 4: As comfort with public policy increases, a person's feeling of confusion with public policy will decrease.

Tested by using aggregated comfort questions and the question, "I find public policy confusing."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Not Confused	138 93.9 77.5 63.3	9 6.1 22.5 4.1	147 67.4
Confused	40 56.3 22.5 18.3	31 43.7 77.5 14.2	71 32.6
Column Total	178 81.7	40 18.3	218 100.0

χ^2 = 42.6 with 1 d.f.
Significance = .0000

Hypothesis 5: As comfort with public policy incresaes, a person's judgment of the amount of public policy knowledge possessed increases.

Tested by using aggregated comfort questions and the question, "I consider my knowledge of public policy better than the average person's."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Knowledge Better than Average Person	125 95.4 70.2 57.3	6 4.6 15.0 2.8	131 60.1
Knowledge Less than Average Person	53 60.9 29.8 24.3	34 39.1 85.0 15.6	87 39.9
Column Total	178 81.7	40 18.3	218 100.0

χ^2 = 39.3 with 1 d.f.
Significance = .0000

Hypothesis 6: As comfort with public policy knowledge increases, a person's feeling of adequacy of public policy knowlege increases.

Tested by using aggregated comfort questions and the question, "My knowledge of public policy has been adequate for my needs."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Has Adequate Knowledge	93 84.5 52.2 42.7	17 15.5 42.5 7.8	110 50.5
Has Inadequate Knowledge	85 78.7 47.8 39.0	23 21.3 57.5 10.6	108 49.5
Column Total	178 81.7	40 18.3	218 100.0

χ^2 = .88 with 1 d.f.
Significance = .35

Hypothesis 7: As comfort with public policy increases, a person's fear of revealing ignorance about public policy decreases.

Tested by using aggregated comfort questions and the question, "I avoid participating in discussions of public policy because I am afraid of revealing my ignorance."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Not Afraid	168 91.8 94.4 77.1	15 8.2 37.5 6.9	183 83.9
Afraid	10 28.6 5.6 4.6	25 71.4 62.5 11.5	35 16.1
Column Total	178 81.7	40 18.3	218 100.0

χ^2 = 74.2 with 1 d.f.
Significance = .0000

Hypothesis 8: As comfort with public policy increases, a person's fear of asking questions about public policy decreases.

Tested by using aggregated comfort questions and the question, "I am sometimes afraid to ask questions about public policy because I feel I should already know the answer."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Don't Avoid Asking Questions	158 91.9 88.8 72.5	14 8.1 35.0 6.4	172 78.9
Avoid Asking Questions	20 43.5 11.2 9.2	26 56.5 65.0 11.9	46 21.1
Column Total	178 81.7	40 18.3	218 100.0

χ^2 = 53.5 with 1 d.f.
Significance = .0000

Hypothesis 9: As comfort with public policy increases, a person's satisfaction with his knowledge of general public policy topics increases.

Tested by using aggregated comfort questions and the question, "I am satisfied with my knowledge of public policy."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Satisfied	43 82.7 24.2 19.7	9 17.3 22.5 4.1	52 23.9
Not Satisfied	135 81.3 75.8 61.9	31 18.7 77.5 14.2	166 76.1
Column Total	178 81.7	40 18.3	218 100.0

$\chi^2 = .00$
Significance = .99

Hypothesis 10: As comfort with public policy increases, a person's familiarity with source materials in public policy increases.

Tested by using aggregated comfort questions and the question, "If I did not know the answer to someone's question on public policy, I would know where to find it."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Know Where to Find Information	136 91.3 76.4 62.4	13 8.7 32.5 6.0	149 68.3
Not Know Where to Find Information	42 60.9 23.6 19.3	27 39.1 67.5 12.4	69 31.7
Column Total	178 81.7	40 18.3	218 100.0

χ^2 = 27.1 with 1 d.f.
Significance = .0000

Hypothesis 11: As comfort with public policy increases, a person's belief that public policy topics are not especially difficult topics to speak on increases.

Tested by using aggregated comfort questions and the question, "Giving speeches or presentations on public policy is no more difficult than for anything else."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Not Especially Difficult	106 87.6 59.6 48.6	15 12.4 37.5 6.9	121 55.5
Especially Difficult	72 74.2 40.4 30.0	25 25.8 62.5 11.5	97 44.5
Column Total	178 81.7	40 18.3	218 100.0

χ^2 = 5.6 with 1 d.f.
Significance = .02

Hypothesis 12: As comfort with public policy increases, a person's belief that public policy presentations need not be restricted to highly skilled specialists increases.

Tested by using aggregated comfort questions and the question, "Giving speeches or presentations on public policy should be reserved for highly skilled specialists."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Not Reserve	148 87.1 83.1 67.9	22 12.9 55.0 10.1	170 78.0
Reserve	30 62.5 16.9 13.8	18 37.5 45.0 8.3	48 22.0
Column Total	178 81.7	40 18.3	218 100.0

χ^2 = 13.5 with 1 d.f.
Significance = .0002

Hypothesis 13: As comfort with public policy increases, a person's estimate of preparation time needed before he or she can feel comfortable making public policy presentations decreases.

Tested by using aggregated comfort questions and the question, "I would need very much preparation before I could feel comfortable making presentations on public policy."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Would Not Need Much Preparation	89 98.9 50.0 40.8	1 1.1 2.5 .5	90 41.3
Would Need Much Preparation	89 69.5 50.0 40.8	39 30.5 97.5 17.9	128 58.7
Column Total	178 81.7	40 18.3	218 100.0

χ^2 = 28.5 with 1 d.f.
Significance = .0000

Hypothesis 14: As understanding of public policy increases, interest in public policy increases, especially for uncomfortable persons.

Tested by using aggregated comfort questions and the question, "I would find public policy more interesting if I understood it better."

Crosstabulation Results

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Not More	87 87.0 48.9 39.9	13 13.0 32.5 6.0	100 45.9
More	91 77.1 51.1 41.7	27 22.9 67.5 12.4	118 54.1
Column Total	178 81.7	40 18.3	218 100.0

$\chi^2 = 2.9$
Significance = .09

APPENDIX E

CROSSTABULATION OF COLLEGE WEEK DEMOGRAPHIC CHARACTERISTICS AND CONFIDENCE INDEX VARIABLES

1. Comfort x Knowledge Satisfaction

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Satisfied	80 76.9 89.9 66.7	24 23.1 77.4 20.0	104 86.7
Not Satisfied	9 56.3 10.1 7.5	7 43.8 22.6 5.8	16 13.3
Column Total	89 74.2	31 25.8	129 100.0

χ^2 = 2.11 with 1 d.f.
Significance = .15

2. Comfort x Knowledge Test

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Knowledgeable	63 85.1 67.7 50.4	11 14.9 34.4 8.8	74 59.2
Not Knowledgeable	30 58.8 32.3 24.0	21 41.2 65.6 16.8	51 40.8
Column Total	93 74.4	32 25.6	125 100.0

χ^2 = 9.64 with 1 d.f.
Significance = .0019

3. Comfort x Residence Area

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Farm	42 82.4 46.7 35.3	9 17.6 31.0 7.6	51 42.9
Town	17 65.4 18.9 14.3	9 34.6 31.0 7.6	26 21.8
City	31 73.8 34.4 26.1	11 26.2 37.9 9.2	42 35.3
Column Total	90 75.6	29 24.4	119 100.0

χ^2 = .97 with 2 d.f.
Significance = .62

4. Comfort x Education

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
High School	72 72.0 80.9 61.0	28 28.0 96.6 23.7	100 84.7
College or Other	17 94.4 19.1 14.4	1 5.6 3.4 .8	18 15.3
Column Total	89 75.4	29 24.6	118 100.0

χ^2 = 3.02 with 1 d.f.
Significance = .08

5. Comfort x Work

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Do Not Work	50 69.4 56.2 42.4	22 30.6 75.9 18.6	50 42.4
Part Time	22 78.6 24.7 18.6	6 24.4 20.7 5.1	26 22.0
Full Time	17 94.4 19.1 14.4	1 5.6 3.4 .8	42 35.6
Column Total	54 45.8	64 54.2	118 100.0

χ^2 = 5.05 with 2 d.f.
Significance = .08

6. Knowledge Satisfaction x Residence Area

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Farm	22 44.0 40.7 18.6	28 56.0 43.8 23.7	50 42.4
Town	13 50.0 24.1 11.0	13 50.0 20.3 11.0	26 22.0
City	19 45.2 35.2 16.1	23 54.8 35.9 19.5	42 35.6
Column Total	54 45.8	64 54.2	118 100.0

χ^2 = .26 with 2 d.f.
Significance = .88

7. Knowledge Satisfaction x Education

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
High School	47 47.5 87.0 40.2	52 52.5 82.5 44.4	99 84.6
College or Other	7 38.9 13.0 6.0	11 61.1 17.5 9.4	18 15.43
Column Total	54 46.2	63 53.8	117 100.0

χ^2 = .17 with 1 d.f.
Significance = .68

8. Knowledge Satisfaction x Work

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Do Not Work	32 45.1 59.3 27.4	39 54.9 61.9 33.3	71 60.7
Part Time	15 53.6 27.8 12.8	13 46.4 20.6 11.1	28 23.9
Full Time	7 38.9 13.0 6.0	11 61.1 17.5 9.5	18 15.4
Column Total	54 46.2	63 53.8	117 100.0

χ^2 = .008 with 1 d.f.
Significance = .92

9. Knowledge Satisfaction x Work

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Satisfied	61 58.7 87.1 50.8	42 41.3 86.0 35.8	104 86.7
Not Satisfied	9 56.3 12.9 7.5	7 43.8 14.0 5.0	16 13.3
Column Total	70 58.3	50 41.7	120 100.0

χ^2 = .008 with 1 d.f.
Significance = .92

10. Knowledge Test x Residence Area

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Farm	36 70.6 49.3 30.3	15 29.4 32.6 12.6	51 42.9
Town	18 69.2 24.7 15.1	8 30.8 17.4 6.7	25 21.8
City	19 45.2 26.0 16.0	23 54.8 50.0 19.3	42 35.3
Column Total	73 61.3	46 38.7	119 100.0

χ^2 = 7.11 with 2 d.f.
Significance = .03

11. Knowledge Test x Education

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
High School	61 61.0 84.7 51.7	39 39.0 84.8 33.1	100 84.7
College or Other	11 61.1 15.3 9.3	7 38.9 15.2 5.9	18 15.3
Column Total	72 61.0	46 39.0	118 100.0

χ^2 = .06 with 1 d.f.
Significance = .80

12. Knowledge Test x Work

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Do Not Work	43 59.7 59.7 36.4	29 40.3 63.0 24.6	72 61.0
Part Time	18 64.3 25.0 15.3	10 35.7 21.7 8.5	28 23.7
Full Time	11 61.1 15.3 9.3	7 38.9 15.2 5.9	18 15.3
Column Total	72 61.0	46 39.0	118 100.0

χ^2 = .18 with 2 d.f.
Significance = .92

APPENDIX F

EXTENSION FACTOR LOADINGS

Question Number	1	2	3	4	5	6	7	8	9	10	11	12
1	.71	-.09	.11	-.05	-.23	.19	-.07	.08	-.00	.06	-.08	.02
2	.02	.23	.02	.17	-.04	.51	.14	-.18	-.07	-.12	.28	.02
3	.16	-.01	.43	-.34	-.00	-.02	.21	-.09	-.00	.02	-.09	-.13
4	.41	.04	.05	-.24	-.02	-.11	.15	-.00	-.21	.05	.13	-.22
5	.19	-.18	.05	.04	.43	-.07	.01	.25	-.01	.01	-.23	-.05
6	.45	-.22	-.20	.27	.32	.08	-.06	-.01	-.04	.00	.16	-.08
7	-.24	.91	-.24	-.13	.02	.11	-.06	.05	-.06	.06	.00	.00
8	.71	-.06	.26	.07	-.21	.12	-.28	.16	-.24	.18	.14	-.09
9	-.11	.11	.11	.05	-.00	-.03	-.27	-.19	.41	.07	.21	-.14
10	.27	.18	.11	-.27	.21	.09	.33	.09	.23	-.02	-.23	-.08
11	.42	.24	-.07	.18	.22	.08	.01	-.13	-.05	-.11	-.00	-.21
12	.69	-.15	-.18	.05	-.13	.20	-.01	-.08	-.03	.25	-.13	-.08
13	-.23	.05	.09	.10	.13	.40	-.07	.16	-.18	.13	-.20	-.03
14	.21	.14	-.05	.30	.20	.08	.26	-.05	.07	.22	.13	.18
15	.59	.22	.03	-.18	.05	.11	.06	.90	.03	-.03	.07	.19
16	.24	.36	.05	.10	-.25	-.09	.25	-.28	.04	-.05	-.05	-.05
17	.54	-.07	-.24	.16	-.42	-.07	-.04	.02	.06	.04	-.06	.22
18	.38	.27	-.20	.27	.05	-.11	.13	-.02	.16	-.01	.04	-.14
19	.37	-.11	-.27	-.09	-.06	-.24	.02	-.01	-.01	-.03	.10	-.01
20	.43	-.35	-.12	-.39	.28	.10	1.5	.00	-.07	-.16	.23	.29
21	.55	.04	.09	.16	-.08	.01	.18	-.08	-.16	-.24	-.05	-.22
22	.27	.36	.39	-.20	.14	-.06	-.11	.04	.16	.01	.14	.04
23	.27	.13	.02	.23	.11	-.02	-.03	.36	.16	-.00	.19	-.06
24	.53	-.11	-.22	-.34	-.04	-.13	-.17	-.04	.11	-.06	.02	-.04
25	-.04	-.04	.16	.51	.03	-.24	.32	-.13	-.04	.17	-.05	.16

Appendix F (continued)

Question Number	1	2	3	4	5	6	7	8	9	10	11	12
26	.35	.29	.43	-.04	.24	-.26	-.10	-.10	-.10	.39	.03	.10
27	.46	.37	.02	.20	.15	-.36	-.14	.11	-.05	-.32	-.07	.07
28	.42	-.20	-.23	-.04	.13	.29	-.01	-.10	.38	.09	-.19	.01
29	.06	.26	.03	-.22	-.39	-.07	.31	.29	.12	.11	.05	.01
30	.35	.33	.04	.01	.01	-.02	-.31	-.34	.01	-.06	-.24	.13
31	.15	.10	.63	.16	-.12	.24	-.04	.04	.08	-.31	-.06	.17
32	-.24	.91	-.24	-.13	.03	.11	-.06	.05	-.06	.06	.00	.00
33	.03	.10	-.03	.34	-.14	-.01	-.04	.41	.13	-.05	-.06	-.02
34	.30	.26	-.35	-.06	.06	-.04	.03	.04	-.20	-.02	-.14	.14

APPENDIX G

CROSSTABULATION OF CONFIDENCE INDEX VARIABLES USING EXTENSION DATA

Comfort x Knowledge Satisfaction

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Satisfied	37 92.5 43.5 40.2	3 7.5 42.9 3.3	40.0 43.5
Not Satisfied	48 92.3 56.6 52.2	4 7.7 57.1 4.3	52 56.5
Column Total	85 92.4	7 7.6	92 100.0

χ^2 = .13 with 1 d.f.
Significance = .72

Comfort x Knowledge

Row Pct Col Pct Tot Pct	Comfort	Not Comfort	Row Total
Knowledgeable	73 93.3 85.9 79.3	2 2.7 28.6 2.2	75 81.5
Not Knowledgeable	12 70.6 14.1 13.0	5 29.4 71.4 5.4	17 18.5
Column Total	85 92.4	7 7.6	92 100.0

χ^2 = 10.6 with 1 d.f.
Significance = .0012