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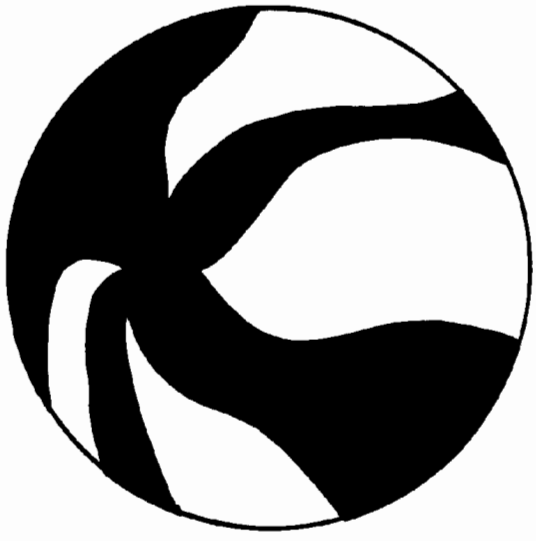

Home Economics

FORUM

COMPLEMENTARY USES OF QUANTITATIVE AND QUALITATIVE METHODOLOGIES AND PARADIGMS IN HOME ECONOMICS

HUMAN NEEDS

1990-91 FELLOWSHIPS AND GRANTS

OMICRON NU RESEARCH FELLOWSHIP
in the amount of
$2,250

Two fellowships are awarded annually for doctoral study in Home Economics or a related field. Applications shall be submitted by January 15, 1990.

OMICRON NU EILEEN C. MADDEX FELLOWSHIP
in the amount of
$2,000

This fellowship will be awarded to Omicron Nu members pursuing study at the master's level. Applications shall be submitted by April 1, 1990.

OMICRON NU POSTDOCTORAL FELLOWSHIP
in the amount of
$2,000

This fellowship is awarded for postdoctoral study or research. Applications shall be submitted by April 1, 1990.

1990-91 OMICRON NU RESEARCH PROJECT GRANT
in the amount of
$1,000

Two grants will be awarded to individual members or research teams to support research in Home Economics or any related specialty. Applications shall be submitted by December 15, 1989.

Applications for fellowships and grants may be obtained from Omicron Nu, P.O. Box 247, Haslett, MI 48840-0247.

1990-91 FELLOWSHIPS

Kappa Omicron Phi
National Home Economics Honor Society
announces
The Twenty-Second Annual
Kappa Omicron Phi -
Hettie Margaret Anthony Fellowship
in the amount of
$2,000
and
The Kappa Omicron Phi -
Gladys Bolack Crowley Fellowship
in the amount of
$2,000
and
The Kappa Omicron Phi -
Dorothy I. Mitstifer Fellowship
in the amount of
$2,000
and
The Kappa Omicron Phi-
Helen Devinney Fellowship
in the amount of
$2,000

Each fellowship will be awarded to a Kappa Omicron Phi member who meets the requirements of the fellowship program. A $15.00 application fee must accompany each request for fellowship materials. Make check payable to the AHEA Foundation and mail to the AHEA Foundation Fellowship Program, 1555 King Street, Alexandria, VA 22314. Applications must be submitted by January 15, 1990.

1990-91 PROJECT GRANTS

Kappa Omicron Phi
National Home Economics Honor Society
announces
The Kappa Omicron Phi Project Grants
in the amount of
$1,500
and
The Kappa Omicron Phi Alumni
Chapter-at-Large
Project Grant
in the amount of
$500

A limited number of grants (2-4) will be awarded to Kappa Omicron Phi active and alumni members for projects which meet the criteria of the AHEA Project Grants Program. Applications must be made on AHEA Forms and must be submitted by December 11, 1989. For further information about the criteria for acceptance, write to the AHEA Foundation Project Grant Program, 1555 King Street, Alexandria, VA 22314.

KAPPA OMICRON PHI FELLOWSHIPS DEFINED

- The Presidents Fellowship for 1990-91 will be named the GLADYS BOLACK CROWLEY FELLOWSHIP in recognition of her service as second president of Kappa Omicron Phi, 1936-40.
- The Named Fellowship for 1990-91 will be identified as the HELEN DEVINNEY FELLOWSHIP in recognition of her years of service on the faculty at Eastern Illinois University and as sponsor of Alpha Theta Chapter.
- The Dorothy I. Mitstifer Fellowship will be targeted primarily to KOPhi Chapter Sponsors for graduate or post-graduate study/research.

The National Council announced policy changes for fellowship grants beginning with the 1990-91 fellowships. The master's and doctoral awards will not require previous work experience, and two new categories have been defined:

- Graduate study grants for part-time students
- Grants for international program expansion

Editor's Corner

Three years ago when Norma Bobbitt and I contemplated publishing a theme issue to feature complementary use of quantitative and qualitative research we did not anticipate that we would have difficulty communicating. After all, our offices were less than five miles apart. But her assignment in Lesotho, an island nation within South Africa and her present homeland, has intervened to change our plans. This issue will not feature an introduction and overview of the theme, but the Spring 1990 issue will include a conclusion and overview of the two issues of this theme.

This issue features four papers that document successful application of "Complementary Uses of Quantitative and Qualitative Methodologies and Paradigms in Home Economics." The value of the integrative approach as summarized by the authors should encourage the rest of us to explore new ways to ask and answer research questions.

D.M.

Qualitative and Quantitative Research: Problems and Possibilities

Anne MacCleave

Problems and possibilities encountered in attempts to combine quantitative and qualitative research methodologies are explored through two illustrative studies. In light of the benefits accrued from combining methodologies, an argument is presented for avoiding extreme purist and pragmatic positions in approaches to research.

To restrict knowledge to the propositional is to put a corset around human understanding, a corset that might satisfy those verificationists and fallibilists who require a tidy world, but that severely underestimates how and what we come to know (Eisner, 1989, p. 63).

Indeed the world is far from tidy for researchers who struggle amidst the ongoing debate concerning the relative appropriateness of qualitative and quantitative research methodologies. For those who seek to create and verify theories or address research problems, Eisner's quote raises a fundamental question in the qualitative/quantitative debate: What counts as knowledge?

Knowledge that counts for quantitative researchers who subscribe to the assumptions of logical positivism is that which is precise, objective, value-free, verifiable, and replicable. The neutral, disengaged researcher seeks to explain cause-effect relationships of social phenomena, the more generalizable the better. The preferred form of representing this knowledge is through a series of propositions or formulas (Borg & Gall, 1989; Firestone, 1987; Guba & Lincoln, 1981; Reichardt & Cook, 1979).

For the qualitative researcher of the phenomenological persuasion, knowledge that counts is subjective, context- related, value-full, process-oriented, holistic, relevant, and internally consistent. The participant observer seeks a depth of understanding of the social phenomena under study and is particularly interested in imparting an insider's perspective. The preferred form of representation is thick descriptions to communicate a coherent and persuasive whole or gestalt (Borg & Gall, 1989; Firestone, 1987; Guba & Lincoln, 1981; Reichardt & Cook, 1979).

Given the dichotomous view of knowledge depicted in these descriptions, it would appear that the researcher can no longer simply choose a method as a means to an end. Embodied in the choice of method is a whole paradigmatic stance or world view (Kuhn, 1970). Logical positivists view the world as static while phenomenologists or naturalistic researchers envision reality as multiple and dynamic (Guba & Lincoln, 1981; Reichardt & Cook, 1979).

The Purist and Pragmatist Response

Reichardt and Cook (1979) challenged the notion that connection between method-type and paradigm need be so consistent and claimed that "the logic of description and inference cuts across methods" (p. 14). While acknowledging honest differences of opinion and judgment among researchers and links that have occurred in practice between paradigm and method, they view the debate as essentially counterproductive. Eisner (1982) also warned that methodological dogmatism could fetter the mind. However, Eisner (1989) remains an advocate of the need for coherence or internal consistency in theory construction and knowledge representation and by inference, research methodology:

> *What I do claim is that if I am playing checkers, I do not want to be judged by the rules of chess. If I am playing chess, I do not want to be responsible for the rules of checkers. I do not mind adhering to the rules, I only want the rules to be appropriate to the game I am playing. Without rules there is no game. Without a game there is no inquiry (p. 64).*

Within the field of education, Firestone (1987) noted a shift in the qualitative/quantitative debate. In response to the wide-scale adoption and acceptance of qualitative research methods, the question for researchers has now become: What ought the relationship be of qualitative methods to quantitative methods?

On the surface, this question might indicate that methodological disputes have been resolved. Such is not the case. In fact, Firestone (1987) described yet another dichotomy created by researchers' response to this question. At one extreme are the purists who firmly believe that methods need to be consistent with paradigmatic stance. Research methodologies cannot be logically combined because paradigms embody differing assumptions about reality: what constitutes legitimate knowledge and which criteria and forms of representation are appropriate for justifying and presenting knowledge. At the other extreme are the pragmatists who advocate the unrestrained combining of method types. The extreme pragmatist would devote scant attention to screening for philosophic consistency among the various components of the research enterprise and would ignore contradictory assumptions based on differing philosophies.

Recommendations for Home Economics Research

In light of these issues facing contemporary researchers, how might we assess Brown and Paolucci's recommendation that practical sciences need to rely on all of the scientific perspectives if professional concerns are to be adequately addressed (Brown & Paolucci, 1979)? Obviously, Brown and Paolucci recognized the diversity of the field of Home Economics when they acknowledged that reasoning about concrete problems of professional service would require empirical-analytic, interpretive, and critical approaches. Since Home Economics deals with human problems, the integration of concepts, principles, and modes of inquiry from many fields would be necessary for the provision of effective serv-

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ices. Would Brown and Paolucci be considered purists or pragmatists? Evidence from Brown's writing would suggest that neither extreme is proposed:

> ... *choosing one mode of rationality rather than another is to choose the most appropriate for the kind of understanding desired; it is not to pit one against the other, as one modern view of science has done. Rather, it is to recognize that each mode of rationality can logically deal with one problematic, i.e., with a particular organization of concepts, but not with others (Brown, 1984, p. 7).*

Yet Brown (1980, 1984) also recognized the interdependence of the diverse modes of inquiry. For example, dimensions of interpretation are involved in all scientific enterprises. Interpretive inquiry is necessary for reconstructing the assumptions underlying all systematic forms of knowledge and for understanding the historic development of phenomena even though these dimensions of inquiry are frequently overlooked as research becomes increasingly technical in its orientation. Brown also noted a logical link between interpretive and critical sciences.

Perhaps what is most important about Brown and Paolucci's recommendations for Home Economics research is the primary emphasis on the question or problem to be addressed. While Brown (1980) called for adequacy, relevancy, and coherency in selecting appropriate means to address areas of concern, the criteria for this selection emphasized rationality and appropriateness for the research problem rather than methodological dogmatism. She did not, however, address the specifics of combining different research methodologies.

Many problems and possibilities are realized by researchers who struggle with selecting appropriate means to address questions in concrete research settings. The application of theoretical considerations deserves attention if theory is to have its intended impact on research approaches. To this end, two research studies featuring combinations of quantitative and qualitative analyses will be explored in the remainder of this paper.

Combining Quantitative and Qualitative Methodologies: Two Studies

Selected aspects of two research studies will be highlighted to illustrate different methodological issues and unique benefits realized in an attempt to combine quantitative and qualitative analyses. The author was personally involved with both studies in the role of researcher or graduate committee member. One study is from the field of education, and the second study addresses Home Economics Education. Both areas share the need to translate theory and research findings into practice.

Testing Taken-for-Granted Assumptions

Borg and Gall (1989) noted that "researchers value the power of scientific inquiry to provide a check on personal belief, common sense, and ordinary observation" (p. 38). A recent study conducted by Taylor (1989) illustrated this point by demonstrating a complementary combination of quantitative and qualitative methods. Taylor addressed the issue of whether retention or promotion was more beneficial to borderline grade one students from a school district in Prince Edward Island, Canada. Essentially, his study was empirical-analytic in nature since hypotheses were formulated and objective data were collected and subjected to conventional statistical analyses. Taylor operationalized the notion of *beneficial* in terms of student achievement as measured by the reading comprehension, math concepts, and application subtests of the Canadian Achievement Tests (CAT) and self-concept measured by administering the Piers-Harris Children's Self Concept Scale.

Taylor supplemented the quantitative dimensions of his study with qualitative data. He conducted ten in-depth, semi-structured interviews with educators from the PEI school district to establish the classroom and curriculum context within which retention and promotion decisions were made. These data also provided insight into educators' perceptions, beliefs, and assumptions concerning this educational practice.

One finding in the study is of particular interest because it illustrates an area of divergence in the quantitative and qualitative data. From the interviews the majority of educators assumed that students were more likely to be retained in first grade if they were younger when they started school. Yet Taylor's statistical analysis revealed no significant differences in the scores of young and older retained or promoted students on reading and math and subtests of the CAT. This divergent finding raised provocative questions. Was the sample for this study typical or atypical of similar cases in previous years? Because the sample for the study was small (38 subjects: 17 retained first year and 21 promoted second-year students), future quantitative research would be required to address this question. On the other hand, the educators' perceptions may have been in error! If their assumptions were faulty, it would be interesting to know how these educators came to hold these views. Further study of a qualitative/interpretive nature may be helpful here.

PROBLEMS: While there were philosophic issues raised concerning the operational definition of *achievement* as a series of standardized test scores, Taylor's study was relatively free of internal contradictions. A diversity of assumptions and beliefs were revealed through the interviews. However, only those assumptions of a propositional nature were compared with the statistical data. When personal beliefs were expressed by interviewees, these were simply included in the descriptive data to enhance understanding of the educational context or research setting.

POSSIBILITIES: The addition of interview data enriched Taylor's study by increasing confidence in the statistical analysis when the findings of the two data sets converged and by raising questions for further study when discrepancies were discovered. Further, the contextual information provided by the descriptive data added depth to the study. The use of qualitative analysis to uncover educators' assumptions combined with quantitative analysis for testing these assumptions also has great potential for encouraging educators to reflect upon and reexamine their personal perceptions and beliefs in the realm of common educational practices.

Among the educational practices of concern in the second study to be considered were the curriculum planning preferences and learning styles of Home Economics educators. Quantitative and qualitative analyses were handled differently in this case.

A Philosophic Analysis of Scientific Variables

To impart a neutral, non-biased or non-emotional connotation, "scientific language obstensibly strips [the] multiplicity of meaning from words in the interest of precision. This is the reason why common terms are given 'technical meanings' for scientific purposes" (Firestone, 1987, p. 17).

The problem of crossing language paradigms of philosophy and science was experienced by MacCleave-Frazier (1985) who surveyed 306 Canadian Home Economics Association educators concerning their preferences for learning experiences reflecting technical, interpretive, and critical-emancipatory systems of action in a hypothetical curriculum planning situation. The researcher also explored relationships among these preferences for diverse systems of action and educators' learning styles (Kolb's LSI; Kolb, 1976), learning characteristics (a researcher-designed adaptation of Kolb's LSI), age, years of experience, educational status, and professional position.

Brown (1980, 1984) defined the systems of action through a detailed process of conceptual and philosophic analysis. In summary, technical action is concerned with helping families find means to meet needs and goals. This system of action relies upon technologies, systems, and rules. The interpretive system of action is concerned with establishing effective communication within families and between the family unit and larger society. This system of action relies upon the interpretation of language symbols in the search for shared meanings. The critical-emancipatory system of action is concerned with helping families be-

come aware of the internal and external forces which enhance or detract from self-formation and family well-being. This system of action relies on critique, judgment, and reasoned decision processes. These systems are based on Habermas' conception of work, language, and power as three separate means of social organization serving three separate interests (Habermas, 1971). To comprehend these complex systems of action fully, extensive study combined with active reasoning is in order. In fact, Brown (1980) claimed that it was impossible to comprehend meanings of concepts of this nature with dictionary-type definitions.

MacCleave-Frazier was interested in discerning broad patterns of relationships between Home Economics educators' learning styles and their preferences for learning experiences reflecting the three systems of action. She believed that this information would provide valuable insights into the curriculum development process and inservice efforts focusing on the adoption of alternate approaches to instruction. To assess preferences for systems of action through a survey questionnaire, it was necessary to operationalize these systems into a limited number of short statements with an accompanying Likert-type scale. Thus learning experiences reflecting the three systems of action became three subscales to which scores could be assigned—in other words, variables that could be factor analyzed. Kolb's Learning Style Inventory was also in the form of a standardized instrument. Thus, the study was essentially empirical-analytic in design and procedure. However, there was a difference between this study and the majority of research employing quantitative methodologies. A philosophic interpretation of the systems of action was included in the literature review. In addition, the assumptions underlying Brown's recommendations for a practical problem focus employing the three systems of action and Kolb's conception of learning styles were screened for philosophic consistency. Components of this nature are frequently excluded from quantitative research studies and may be considered a supplementary qualitative analysis.

PROBLEMS: The problem of translating philosophic concepts to an operational/technical scientific version represented the primary methodological issue of this study. This problem was acknowledged by MacCleave-Frazier (1985) who noted that:

> *The learning experiences created for this study highlighted selected dimensions or aspects of technical, interpretive, and critical-emancipatory systems of action. They do not represent the totality of these complex systems (p. 165).*

Advantages of objectivity and generalizability might be realized at the expense of comprehensive understanding or meaningfulness if readers of this research were to substitute a quick scan of the questionnaire items reflecting the systems of action for an indepth conceptual analysis.

POSSIBILITIES: While the establishment of a theoretical basis for quantitative studies is common practice, theories which may be based on differing assumptions are frequently reported without benefit of further philosophic analysis. The inadvertent adoption of contradictions and inconsistencies may result. In this research, philosophic analysis of the systems of action and other concepts/variables positively influenced the entire study even though the combination of philosophic and more scientific/technical language made for a strange hybrid at times. Specifically, philosophic analysis led to insights which informed the development of items for the survey questionnaire, instrument analysis including interpretation of factors, and interpretation of findings based on subsequent analysis using factor scores. Factor analysis involves inductive reasoning on the part of the researcher. If factor analysis of complex constructs is to be successful, fine discriminations of meaning need to be made at the instrument development stage. The fact that three factors emerged that were conceptually related to the systems of action suggested the efficacy of this process.

When combining methodologies, qualitative/interpretive analysis is frequently used at the exploratory stage of research to generate hypotheses which are later tested using some form of statistical analysis. The process was reversed for this study. The generation and testing of hypotheses revealed broad patterns of relationships among the variables. For example, educators who preferred technical approaches to family problems tended also to prefer pragmatic approaches to learning while preferences for more interpretive/philosophic approaches to family problems were associated with intuitive and analytical approaches to learning. It was suggested that follow-up research employing a qualitative/interpretive methodology would result in a deeper understanding of the nature of these relationships and educators' interpretations of learning experiences based on the three systems of action. This approach could also heighten educators' awareness of their own theoretical and philosophic assumptions concerning curriculum planning preferences in Home Economics subject areas. Thus, quantitative analysis served as a starting point for further qualitative analysis.

Summary

Problems and possibilities are encountered for researchers who attempt to combine quantitative and qualitative methodologies as the two studies illustrate. In Taylor's study, the assumptions of educators concerning retention and promotion decisions for grade one students were tested statistically. Triangulation of data sources enhanced the robustness and stability of findings while divergence in the data raised questions for further study (Reichardt and Cook, 1979). Integration of methodologies was accomplished without philosophic contradiction because the assumptions tested were propositional in nature. In contrast, theories and concepts explored in the MacCleave-Frazier study were subjected to philosophic analysis and screened for consistency. Awareness that respondents would interpret questionnaire items from orientations based on differing theoretical and philosophical assumptions generated questions and areas of concern for subsequent research. Philosophic analysis also strengthened the design and analysis of the questionnaire items reflecting technical, interpretive, and critical-emancipatory approaches to curriculum planning and the interpretation of relationships between educators' learning styles and planning preferences for the three systems of action. As a result of combining quantitative and qualitative methodologies, both studies resulted in more questions than answers. However, formulation of better questions is surely a positive outcome of any research effort.

Combining research methodologies can be an untidy and ambiguous process. This untidiness is compounded when researchers attempt to cross the language paradigms of philosophy and empirical-analytic sciences. As studies become more complex and research settings more interdisciplinary, problems associated with combining paradigms become increasingly problematic. Yet, the dissonance created by these initially awkward attempts may ultimately provide insights into complex social problems. Given the magnitude of the problems facing the helping professions amidst unprecedented social changes, neither educators nor home economists can afford to hold extreme purist or pragmatic positions in their approaches to research. That is, we should not divide into mutually exclusive camps nor gloss over honest differences in values and perspectives. Conversations across research paradigms could help tear down barriers that only serve to divide people and their concerns.

Continued on page 8

An Integrated Qualitative and Quantitative Approach to the Development of a Nutrition Education Program for Teachers

Cheryl L. Achterberg, Madeline Bissonnette, and Garry Auld

This paper describes the development of a week-long intensive teacher training course with accompanying materials for high school classroom use. The process used qualitative methods to address the communicative and emancipative systems of action and quantitative methods to address the technical system of action. The net results were practical, technically accurate materials that met the perceived needs of both the content experts and the teacher-practitioners.

The purpose of this paper is to describe the process by which the curriculum for a nutrition science summer course for high school teachers was developed. The course was developed using a combination of qualitative and quantitative methodologies that addressed Brown and Paolucci's (1979) three systems of action. These three systems of action are the technical (expert-oriented), communicative (cooperative and dialogue-oriented), and emancipative (empowering and "grass-roots" oriented) approaches to problem solving. Brown and Paolucci (1979) asserted that all three systems are generally needed to resolve problems that typically confront home economists. However, curriculum development in nutrition education has tended to follow only a technical model in which the curriculum planner is an expert who specifies "what shall be learned, how it shall be learned, how what is planned for shall be organized, and how what is learned is measured at the end of an instructional sequence" (Griffith, 1980, p. 89). Little, if any consideration is given to the communicative or emancipative systems of action. As a consequence, curricula that are produced in the traditional mode might not be taught well or even taught at all (see, for example, Olson, Frongillo, & Schardt, 1986) because the practitioner's perspective is not included in the developmental process. Then problems in implementation tend to plague the resulting curricular materials. In addition, evaluations in the technical mode tend to stress quantitative methods which may not be sensitive enough to capture important, but unanticipated outcomes that might determine the success or failure of a program (Patton, 1980).

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Background

The purpose of the nutrition science summer course for high school teachers was to (a) enhance the nutrition knowledge of junior-senior high school Home Economics and science teachers, (b) foster interaction between Home Economics and science teachers relative to teaching nutrition, and (c) enable teachers to integrate more nutrition science concepts into their existing curricula. Our objectives were to design a course that met teachers' real (i.e., technical) and perceived (i.e., communicative) needs and to provide them with practical, field-tested materials, activities, and ideas that would either fit in or be easily adapted to their everyday classroom settings (i.e., emancipative). We also knew from previous reports (Olson et al., 1986) that when teachers contribute to the development of curricular materials, they are more likely to use them. Therefore, we wanted to incorporate as much teacher input into our development process as possible.

Procedure

We created a three-year plan that allowed us to assess teachers' preferences for and interest in nutrition science, teachers' classroom needs, student preferences in the classroom, development of curricular materials, and teacher and student evaluations of those materials. Qualitative and quantitative methodologies were used. As noted previously (Patton, 1980), a combination of qualitative and quantitative methodologies can compensate for the flaws inherent to each on its own. In addition, use of an array of tools and perspectives is more likely to unravel the complexity of any particular situation and produce a more complete understanding of it (Achterberg, 1988). We hoped a more complete understanding of teachers' needs and classroom situations would enable us to design more usable and appropriate and, therefore, effective curricular materials.

It has been suggested that qualitative methods should precede quantitative methods to collect detailed information from which more directed, specific, generalizable quantitative procedures can be developed (Achterberg, 1988). Therefore, our assessments began with personal, informal, semi-structured interviews with high school Home Economics and science teachers in the four geographic regions of our state. We asked about the content of their current curricula, the kinds of teaching strategies and resources they currently used, their interest in and freedom to try other strategies, and their perceived barriers to teaching more nutrition, especially laboratory experiences. From this work we learned that governance issues, i.e., extrinsic factors that control, shape, or influence teaching efforts (Gowin, 1981), were critical to their decisions to teach more nutrition. Factors included length of class period, enrollment size, dates to order supplies, and waste disposal problems. We felt that many of these issues had never before been considered in the development of curricular materials. Most teachers said they were interested in incorporating more nutrition into their curricula but

had neither time to develop new lessons nor space in their curricula for a whole new unit. Rather, they were more interested in a topical or modular approach that addressed issues such as the metric system, food additives, alcohol, and artificial sweeteners. Teachers preferred hands- on learning experiences in the classroom. They also reported that their schedules allowed them some flexibility for new lessons if they had "air-tight" directions, clear break points, and reliable results.

The validity of qualitative inquiries with small sample sizes can be strengthened by using multiple methods and analyses. If these separate efforts produce the same or complementary results, then evaluators can place more confidence in the results. So, we also used direct observation to augment our assessment of teachers' needs and constraints. All four members of the development team visited lecture and laboratory-type classes. Care was taken to ensure that we sampled as broad a range of classrooms as possible, i.e., large and small schools in rural and urban districts with greater or lesser budgetary resources available to them. Because of the teachers' reported constraints, we took particular interest in classroom logistics including layout, physical room space, storage facilities, number of student stations, and equipment availability. We also talked informally to students in these classrooms about their preferred learning methods and topics of interest. From this we learned that laboratory activities should last no more than 35 minutes plus 10 minutes for clean-up. A full 10 minutes should also be allowed for students to settle into class. We learned that teachers generally have no help in class preparation; therefore reagent preparation, sample weighing, development of props, etc. should be kept to a minimum. We also observed that these high school students required lots of supervision and concluded that all students should work on a single activity in each class meeting in order to facilitate supervision. Chemicals should be low cost and/or limited to those commonly available in the home, even in chemistry classrooms. Sinks were often limited to one per classroom, and students generally worked in groups of 3-4 at each station. Therefore, curricular materials should be designed with these constraints in mind.

We also used qualitative methods to research similar short courses offered to high school teachers in other subjects to determine the best strategy for offering such courses during the summer. Based on the collective qualitative data from teachers, classroom observations, and in-service course instructors, we created a preliminary structure for our summer course which included expert lectures by outstanding speakers, a hands-on experiential component (3-4 hours/day), tours of special facilities (e.g., the underwater weighing laboratory), and sessions for participants to practice newly learned teaching methods. To determine the content of the presentations we again drew ideas from the teachers' input and scanned the literature (including current high school texts, professional journals, other curricula, and teacher newsletters) for relevant background information, laboratory experiments, activities, and demonstrations suitable for use in high school classrooms in our state.

Each laboratory/activity was tested first by two members of our development team. Then the activities were pilot tested in four different high schools in Home Economics, biology, and chemistry classrooms. In order to gather systematic and comparable evaluations, we turned to quantitative methods. Hence, teacher and student surveys were developed to assess the success of these activities. The wording and focus of these questions were largely derived from the results of our qualitative interviews and observations. Still, the most valuable feedback was derived from open-ended questions.

Based on these results, the laboratories/activities were revised and the program for the summer course was finalized for its first offering (n=25/yr; 50% Home Economics and 50% science teachers). Quantitative questionnaires based on the concerns and experiences we had identified during development were formalized to facilitate handling a larger data base and to assure uniform assessment from year to year, allowing us to compare versions of the course more easily over time.

During the summer course, laboratories/activities (about three per day) were evaluated by teacher participants immediately after they performed them. The overall course was evaluated at the end of the week-long course and again seven months later. High school students were also asked to evaluate the laboratories/activities when they were presented by our teacher participants in their own classrooms. Evaluations from 42 classes and 2126 students were received in follow-up for 1987 and from 35 classes and 553 students in 1988.

Compared to their usual lessons, 61.9 percent of teachers reported better teaching performance using our materials. Likewise, compared to their usual lessons, 68 percent of students rated our materials as good or excellent. Also, 86 percent of the teachers plan to teach these lessons again. Additional revisions were made to both our curricular materials and the design of our summer course based on these quantitative evaluations. The entire cycle was repeated after a second year of field testing of the university course and high school classroom materials. We are currently in our last stage of revision to prepare for the third course offering and to finalize the materials for publication. It should also be noted that these curricular materials were reviewed and evaluated by laboratory-based nutrition scientists for content validity as well as by a group of outside nutrition educators.

Results & Discussion

Development of this kind of program takes considerable time, effort, and resources. However, we feel that this integrated approach was superior to traditional methods in enabling us to produce a teacher education course and high school curricular materials that more effectively meet the needs and desires of teachers and students across the state. By using qualitative methods in the exploratory, formative stages we were better able to identify the issues of importance to the actual practitioner (i.e., teacher) in the field. We believe this promoted a better dialogue with teachers in our summer course (a communicative system of action) and it enabled us throughout the developmental process, to work with vs. for teachers to create an emancipative-type intervention. On the other hand, the quantitative data helped us to address the technical issues associated with the design of a course and curricular materials. The quantitative approach also helped us to assess the generalizability of our results to a larger sample on a relatively limited budget and in a limited amount of time. The two approaches produced different kinds of data, but the usability of each kind of data was increased by the availability of the other data. Neither approach alone could have provided us with such clear, practical, and specific guidance as that which we gleaned from the combined approach.

Conclusion

Qualitative methodologies have been applauded in the past because they help explain *why* an event occurred (Mullen & Iverson, 1982) or what a particular set of numerical data means (Sieber, 1973) or because they foster the development of a theoretical framework (Glaser & Strauss, 1967) or preserve the natural variation found in human populations (Filstead, 1979). We would like to add that qualitative methodologies are also useful in development and evaluation efforts because they help researchers to focus on practical issues (vs. only theoretic) and they enable a researcher to incorporate the communicative and emancipative systems of action in their inquiries. Quantitative methodologies tend to emphasize only the technical system of action. As Brown and Paolucci (1979) pointed out, most of the problems that need to be addressed by home economists require, by nature, that all three systems of action be used to reach an appropriate solution. Based on the results of this work, we conclude that evaluators can use all three systems when they integrate qualitative and quantitative methodologies. Therefore, we urge other

researchers to consider this approach as a model to guide their course and curricular development strategies.

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Customer Service, Customer Appearance, and Salesperson Goals: Qualitative and Quantitative Analyses

Sharron J. Lennon and Leslie L. Davis

This research was designed to investigate the general area of customer service as a function of customer appearance and salesperson's goals. An integrative approach combining both qualitative and quantitative methodologies was employed and proved successful in revealing and refining possible variables to study. Both salesperson's goals and customer appearance (age and dress jointly) were found to affect customer service.

This project employs qualitative and quantitative research techniques in order to overcome the limitations of each and reap their respective advantages. Qualitative research has been criticized as subjective, value laden, and nonscientific (Borman, LeCompte, & Goetz, 1986), while quantitative research is seen as objective, value free, and scientific. Quantitative research has been criticized for lack of correspondence between its measures and reality and also for misusing statistics and statistical procedures (Krenz & Sax, 1986). We reasoned that by using both types of research techniques we could sift through our results to isolate findings that seemed to be consistent across both types of techniques and, thus, improve validity. Furthermore, we thought that a careful qualitative analysis of the phenomenon of interest might possibly unveil some potentially valuable information which could then be incorporated into a quantitative research study.

A distinction between qualitative and quantitative studies is the type of information collected (Hopkins, 1976, p. 54). A quantitative study collects numerical information, and a qualitative study collects non-numerical information. Most clothing and human behavior studies have employed quantitative analyses. This paper applies these two alternative approaches to the study of customer service.

Customer service or service encounters may be defined as the direct interactions between retail firms and its customers (Czepiel, Solomon, & Surprenant, 1985, p. ix). Customer service at the retail store level can include any or all of the following: greeting the customer, assisting the customer to find desired goods, calling other stores to locate desired goods, acknowledging the customer, smiling at the customer, and offering to open a charge account, as well as, any number of special programs provided by the particular store to attract customers.

It has been suggested that the customer-salesperson interaction is important in determining customer satisfaction (Solomon, Surprenant, Czepiel, & Gutman, 1985) and that problems with retail service may create a negative attitude toward the retail firm which will affect future patronage behavior (Krentler, 1988). For example, although some retailers have instituted (a) personal shoppers, (b) specialized departments offering innovative services, e.g., Carson's Corporate Level and Filene's Corporate Image, or (c) selling incentives to encourage friendly and helpful service, e.g., Macy's New Jersey and Nordstrom's, many customers feel that there is never any help when they need it and too much help when they don't need it (Koepp, 1987). Thus customer service, although generally acknowledged to be important, is often a problem for the customer at the retail level.

One facet of the problem of customer service might be related to the appearance of the customer. Considerable research in the area of clothing and human behavior has revealed that the clothing an individual wears affects the impressions conveyed by the individual (Lennon, 1986; Lennon & Miller, 1984; Workman, 1988), as well as, subsequent behavioral responses to the individual (Davis, 1984; Davis & Lennon, 1983; Hensley, 1981; Mauro, 1984; Rinn, 1976). Thus there is some basis for the notion that dress and appearance of a customer may influence subsequent behavioral responses to the customer.

In the context of field experiments some researchers have investigated and found effects of selected customer characteristics on subsequent salesperson behavior (Stead & Zinkham, 1986; Wise, 1974). These studies provide situation specific evidence that salespersons respond to the clothing of customers. Specifically, well-dressed (high status) people seem to receive better treatment than more poorly-dressed (low status) people.

Since customer service is an interaction, theories of communication and interaction may offer theoretical insights as to why customers are treated as they are. In the GOALS/GRASP theory of communication (Cronkhite & Liska, 1980), the goals of the interactants as well as the traits inferred on the basis of the appearance of the interactants may be used to explain and predict communication. Adapting this theory to customer service, a customer will be perceived as worthy of attention if the salesperson infers traits based on the customer's appearance which tend to match traits that are congruent with relevant goals of the situation.

For example, consider a customer who enters a store with a particular product purchase in mind. Assuming the salesperson is unknown to the customer, the salesperson may observe how the customer acts, consider what the customer says, and may analyze the appearance of the customer. From these observable characteristics the salesperson can attribute characteristics to the customer such as socioeconomic status, intention to purchase, honesty, and similarity to target customer.

At the same time the salesperson has certain goals (e.g., selling merchandise, moving stock, and repricing merchandise) in mind which are likely to be related to the retail context. Related to these goals are traits that the

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salesperson looks for to identify "good" customers, i.e., people who are likely to purchase. During the customer-salesperson interaction, or even before, the salesperson will assess the degree of matching and the customer will be judged as more or less likely to purchase (worthy of attention). It seems reasonable to expect that customers who are judged as more likely to purchase will be given better customer service (attention) in the expectation that they will purchase, while customers judged as less likely to purchase may be ignored so that the salesperson can get on with other tasks related to the goals of the retail situation.

This research focused on the appearance of the customer, goals of the salespeople, and the effects they may have on the customer-salesperson interaction. This project consisted of three parts. Study 1 was designed to elicit qualitative information from salespersons regarding sales training and attitudes toward customer service. Study 2 was designed as a field study consisting of observations of customer-salesperson interactions in their naturally occurring contexts in order to isolate and refine variables for further study. Furthermore we sought to determine the extent to which attitudes toward customer service (from Study 1) were congruent to observed behavior. Study 3 was a field experiment conducted to measure the effects of variables isolated in Study 1 and confirmed in Study 2 on the customer-salesperson interaction in a controlled situation.

Study 1: Questionnaire Survey

Procedure

Subjects for Study 1 were 42 college students enrolled in a lower division general education course. The subjects were currently working or recently had worked as retail salespersons. Some of the subjects had worked as long as 3.5 years and many had worked in a variety of different types of stores. About one-third of these subjects worked at department stores, the remainder worked at specialty stores. Subjects participated as part of an optional course activity and completed a one-page questionnaire which elicited some demographic information. They also responded to six open-ended questions which dealt with their sales training and with inferences they might have made of customers as a function of customer appearance. Although demand characteristics may have affected subjects' self-reports, it was felt that a synopsis of these reports could provide a basis for suggesting variables for further study. For example, clothing and appearances are known to affect conveyed socioeconomic status (Douty, 1963) which in turn may affect salespersons' inferences regarding purchasing ability. Responses were content analyzed with the intent of isolating variables that might be of interest in the field study and field experiment.

Results and Discussion

Subjects indicated that they did base inferences about customers on the customers' appearance (67% — yes, 12% — sometimes, 21% — no). Respondents also reported giving men preferential treatment as compared to women (69% — yes, 10% — sometimes, and 21% — no). However, when asked if well-dressed (high status) people spent more money than more poorly-dressed (low status) people, responses were divided (no — 38%, sometimes — 26%, and yes — 36%). Thus although they reported inferring things about their customers based on customer appearance, the inferences were more related to customer sex than customer attire and were generally related to types of merchandise they thought the customer would desire.

In general, respondents indicated that they were told to approach and greet each customer (95%). However, respondents received very little sales training. A sales approach was taught to only 12 percent of the respondents, dealing with customers was taught to 29 percent of the respondents, and the other 59 percent either had no training, read manuals, or trained on the job. To summarize, salespersons indicated that they (a) made inferences regarding customers based on customer appearance, (b) treated men preferentially as compared to women, (c) did not believe well-dressed (high status) individuals spend more than more poorly-dressed (low status) individuals, (d) were trained to approach and greet each customer, and (e) most received no sales training.

Study 2: Field Study

Procedure

Observatons (n = 34) were made in department and specialty stores selling clothing. Experimenters visited the store during a one-week period during March 1988. For each observation an experimenter entered a department and unobtrusively observed salesperson-customer interactions. Information regarding store type, department type, time of day, sex of customer, approximate age of customer, physical description of customer, and description of the interaction were noted. The dependent variable of interest was simply whether or not the customer was approached.

Results and Discussion

Basic findings were (a) only 53 percent of observed customers were approached (some only after 5 to 10 minutes) and (b) 43 percent of all males observed were approached, and 56 percent of all females observed were approached. Thus salespersons' attitudes as measured in Study 1 were not congruent with actual salesperson behavior in Study 2.

More interesting findings emerged from the analysis of store and department type. Because information had been recorded regarding the departments in which interactions were observed, we were able to determine which departments offered a sales incentive in the form of a commission on sales for their salespersons. In all observations in commissioned departments, 100 percent of the department store customers were approached; however, in non-commissioned departments only 27 percent of the department store customers were approached. Furthermore, in all observations in specialty stores the customer was approached. Of those customers approached in non-commissioned departments, none were estimated to be under 20, half were estimated to be 25-30, and one-third were estimated to be over 45, leading us to speculate that older customers might receive more attention than younger ones.

Because the total number of approached customers was so small, these percentages must be interpreted with caution. However, some tentative conclusions may be offered: (a) salespersons' attitudes and behaviors do not correspond, (b) in general, service was poor — some customers were never approached even though salespeople were in the vicinity, (c) neither clothing nor sex of customer per se seemed to influence the customer-salesperson interaction, (d) age of customer may influence customer service, and (e) the goal of the salesperson seems to influence the customer-salesperson interaction, i.e., if a salesperson is commissioned or if a salesperson works for a specialty store (typically customer service is stressed at specialty stores) then customers are approached. A field experiment was designed based on these results.

Study 3: Field Experiment

Two females served as stimulus persons and posed as customers of two department stores. Both stores are successful and well-known in the Northwest and carry moderate-to-designer priced merchandise. The major difference between the stores was their method of employee payment: Store C (commission plus wage) paid its salespeople an hourly wage plus a commission on sales whereas Store W (wage only) paid its salespeople only an hourly wage. In order to obtain enough subjects (salespeople) for the study, the same two stores in two different cities were used. Dress manipulations were designed to convey high status and low status. The dependent variable for the study was length of time before service was given to the stimulus persons by salespeople.

Subjects

Subjects were 92 female salespersons employed by one of two department stores. Estimations of subjects' ages ranged from 20 to 50 years. All subjects were working in women's apparel departments at the time of the study.

Stimulus Persons

The two stimulus persons represented two different age categories. Stimulus Person 1 was blonde, 24 years of age, and 5'6" tall. Stimulus Person 2 was brunette, 32 years of age, and

5' tall. Although the stimulus persons were not similar in appearance, both were slender and had a pleasant appearance. An obvious difference between them was their age.

High and low status clothing items were selected on the basis of results of a pretest (n = 59) which asked subjects to list such items. For the low status manipulation the models were to appear of low socioeconomic status, but not dirty or as if they were going to shoplift. Therefore both models wore ill-fitting black polyester pants, worn out shoes, out-of-fashion inexpensive sweaters, clean but unfixed hair, either no makeup or makeup that was put on poorly, and carried inexpensive purses. In the high status condition Stimulus Person 1 wore black rayon pants, new black leather shoes, a fashionable teal wool sweater, a black suede and leather jacket, gold accessories, and carried a designer purse. Stimulus Person 2 wore black wool pants, new black leather shoes, a white blouse, a fashionable red wool blazer, a grey wool coat slung over her arm, gold accessories, and carried an expensive leather purse.

Procedure

On two different week days, stimulus persons posed as customers of each of the two stores. The stimulus persons individually walked into women's apparel departments of each store, half the time dressed to convey high social status and half the time dressed to convey low social status. In order to maintain consistency between stores and departments each stimulus person located herself in view of a salesperson and appeared to be needing help with the apparel (i.e., looking at labels, holding apparel up to herself). Through the use of a hidden stopwatch, each stimulus person measured the length of time it took a salesperson in that department to acknowledge her or approach her in a helping manner. The maximum length of time a stimulus person remained in any one department was 10 minutes (600 seconds).

Results and Discussion

In order to examine any difference between the two cities where the data were collected, a one-way analysis of variance was performed on the length of time before service. There were no main effects for city so the data were pooled for subsequent analyses.

A 2 (age of stimulus person) by 2 (store) by 2 (dress) between subjects analysis of variance was performed on the length of time before service. A main effect was found for store, $F(1, 84) = 12.99$, p less than .01; with subjects at Store C providing service significantly faster than subjects at Store W (means = 296.78 seconds and 459.77 seconds, respectively). It may be that because Store C paid its salespeople an hourly wage plus a commission on sales, the incentive produced by the commission type of payment strategy encouraged a service orientation among salespeople.

There was no main effect for dress of stimulus person. Perhaps salespeople in these two stores are exposed to customers dressed in a variety of ways and therefore do not use appearance cues per se to distinguish between which customers to help. However, once these salespeople help customers they may be using customer appearance cues as a means of suggesting appropriate merchandise for the customers.

A main effect was also found for age of stimulus person, $F(1, 84) = 4.75$, $p < .05$; with the older of the two stimulus persons receiving service significantly faster (means = 327.25 and 428.44 seconds, for older and younger, respectively). Although not significant at traditional levels, results indicated a trend toward a two-way interaction between the age and dress of the stimulus person, $F(1, 84) = 3.44$, $p = .067$. Only in the high status dress condition, did the older stimulus person receive service faster than the younger stimulus person (means = 272.86 and 463.91 seconds, respectively). It is possible that salespeople viewed an older individual as a more likely paying customer than a younger individual, especially when appearing of high status.

General Discussion

Study 1 and Study 2 were qualitative, while Study 3 was quantitative. We initially studied customer service in a qualitative manner in order to establish some parameters about it. We gathered information from people acquainted with customer service—the salespeople who deliver it. Much of this information later proved to be extraneous, but initially we did not know what was and what was not relevant or useful information in explaining and understanding customer service.

This information gleaned from salespeople was content analyzed into categories which suggested some new information (salespeople are trained to approach everyone) and confirmed some previously isolated information (customer appearance, sex, and dress may affect customer services). This qualitative analysis suggested that salespeople are trained to approach all customers and yet we suspected that all customers are not approached. We found that very little sales training is received by salespeople.

The field study was designed to observe whether or not salespeople's attitudes as revealed in Study 1 correspond to salespeople's behavior. We focused our observations on customer appearance and whether or not the customers were approached. However, other information was also recorded and later content analyzed regarding store type and department type. In Study 2 neither customer dress or sex per se seemed related to subsequent customer service. Although the salespeople in Study 1 said they were trained to approach all customers (95%), the customer was approached in just slightly over half the observations in Study 2. Because department type had been noted, we discovered that in commissioned departments all observed customers were approached. Thus this field study yielded a new potentially salient variable for our field experiment — sales incentive. The general variable of salesperson's goal had been suggested by theory (Cronkhite & Liska, 1980), but by collecting the qualitative data in the field study we were able to confirm it and to specify a particular goal. Another variable isolated by Study 2 was age of customer.

The field experiment was designed primarily to measure the effects of a salient goal of salespeople, i.e., sales incentive, together with age and dress of customers on customer service. Indeed, the salesperson's goal was found to affect customer service as did age of customer. Also, when appearing to be of high status (as a function of dress) the older customer was approached faster than the younger customer. Thus customer appearance, specifically age and dress, also affected customer service.

These studies were designed to employ qualitative and quantitative approaches to the study of some simple types of customer service, i.e., whether or not the customer was approached and the speed with which the customer was approached. The use of a qualitative approach allowed us to discover new variables and to confirm suspected variables. This approach also allowed the flexibility of adapting to unexpected findings. Using results of the first two qualitative studies we were able to design a controlled field experiment which gathered quantitative information. This quantitative approach which has the advantage of being more objective than the qualitative studies nevertheless yielded information which was congruent with results of the qualitative studies. Using an integrative approach based on qualitative and quantitative methodologies offers researchers the opportunity (a) to better frame or define the area of interest, (b) to reveal and refine the variables of interest, (c) to avoid problems inherent in each approach, and (d) to pinpoint results consistent across both types of research.

Implications

These results may be of concern for Home Economics professionals. Graduates of Home Economics programs are often employed as retail managers and as such often train salespeople. Furthermore some Home Economics professionals who teach in the merchandising area also act as consultants for retailers interested in improving customer service. Results of these three studies imply that to increase customer service Home Economics professionals might make the following suggestions:

- Some type of incentive to encourage customer service could be offered to salespeople. Company and/or store management may wish to consider offering a commission on

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Epistemology and Meaning: A Case for Multi-Methodologies for Social Research in Home Economics

Jean A. Hamilton

The optimal approach to social research in Home Economics is a function of the question the research seeks to address and the methodological constraints imposed by the research environment. The problem of epistemology, therefore, will not be solved by adherence to any one approach to generating knowledge. Examples from the author's research experience and that of others in clothing and textiles are used in illustrating the advantages of multi-methodologies when the research goal is the most authentic and thorough comprehension of the question under investigation.

In an effort to render social inquiry "scientific," early nineteenth century social researchers began borrowing the methodology of the physical and natural sciences, one characterized by objectivity, replicability, and precision in measurement (Williamson, Karp, & Dalphin, 1977). In today's social science academic environment, including social research in Home Economics, this generally means systematically gathering information from a large population and reducing it to some numerical format that can be statistically manipulated. The corollary assumption is that if data are in a numerical format, they are more real and trustworthy. Unfortunately, this bias often leaves important dimensions of the original research question unaddressed.

The intent of this paper is not to argue the merit of qualitative research methodologies *over* quantitative methods; all the categories of established techniques that comprise what we know as research methods in the behavioral sciences have advantages and limitations. What is best is a function of (a) the question the research effort seeks to address and (b) methodological constraints imposed by a particular research environment. Importantly, however, "a full understanding of interaction within . . . any interactional structure, demands the use of more than one method. Without multiple methods assessed against common data bodies, the researcher has no way of judging the reactive and biasing effects of his observations and methods" (Denzin, 1970, p. 474).

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Combined Research Methods: Illustrative Scenarios

In addressing research questions, a quantitative and qualitative approach can be combined, or two or more qualitative approaches may be more appropriate. In some research environments, however, only one method may be useful or possible. The following discussion will demonstrate each of these scenarios in a context relevant to research in Home Economics, with primary focus on research questions in clothing and textiles.

Combining the Questionnaire with Qualitative Methods

In combining a questionnaire with a qualitative strategy, e.g., interviewing, document analysis, case study, participant-observation, and focus-groups, the issue of time frame becomes relevant. The use of these data-gathering techniques can comprise a multi-phase study in which the approach in the second phase is significantly influenced by the findings from the first phase. Littrell's (1980) study of Ghanaian women's preference for wax-dyed textile fabric is a good illustrative case. The research question focused on the extent to which established American clothing selection criteria were applicable in this different cultural system, with careful attention to ensuring that the American categories were not merely assumed to be appropriate.

Prior to administration of the quantitative instrument, Littrell spent two months in Ghana (a) observing fabric production, distribution, consumer use patterns, and market interaction, (b) evaluating government regulation of design standards and economic valuation, and (c) conducting in-depth interviews with key informants regarding design standards, traditional tribal variations and preferences, government control, and fabric use. Based on her findings in the first phase, Littrell then modified the instrument, prior to administering it, to make it culturally appropriate to the Ghanian context. Interestingly, achieving test-retest reliability was frustrated by culture-specific constraints.

By contrast, a questionnaire may be appropriate for the first phase of study, followed by a qualitative technique. In a cross-cultural investigation of body-cathexis (satisfaction) by this researcher, respondents were asked to evaluate relative satisfaction with body parts on a standard five-point Likert-type scale. No difficulty was encountered in soliciting responses to this instrument among women in either the U.S. or Scotland. A companion questionnaire, devised to ask respondents to explain feelings of body-satisfaction, however, was unsuccessful in a pilot administration of the instruments, generating only superficial responses.

The same explanatory questions were successfully addressed when administered to respondents in follow-up in-depth interviews. It appears that feelings of satisfaction with the body, and one's particular life experiences that have generated those feelings, are intimate and private and are sometimes quite hidden, even to the individual who experiences them. Explanations from respondents can only be generated in an environment that is safe, one that is perceived as private and trustworthy. Home Economics research often addresses questions that represent private (intimate) meanings for the respondent. Valid responses may require non-quantitative methods for eliciting those meanings.

Combining Qualitative Methods

In the mid-nineteenth century, a small Midwestern town was classified as a unique American phenomenon known in the sociological literature as an "intentional community." Founded by a German minister with a utopian vision, the town thrived for several de-

cades, supported primarily by the sale of coverlets produced in the town's mill. The designs of the coverlets were unique among nineteenth century American coverlets. Contemporary textile historians (Horn & Wilson, 1989) documented the textile production of this community, focusing on the relationship of community social organization and belief system to the mill's production.

Data were obtained from three sources: (a) A handful of elderly grandchildren of original settlers still live in the town; (b) Some of these people possess coverlets produced in the old mill; (c) The county courthouse and a few families possess some scant historical documents relating to the old community. The researchers combined data from the interviews of the elderly grandchildren with the analyses of extant documents to reconstruct, to the extent possible, the relationship of the producers to the production and the economic, social, and symbolic meanings that production held for the community. Additionally, careful documentation of the extant coverlets was made in order to trace the European roots of the designs and assess their evolution in the New World.

Single Method Qualitative Investigations

The research environment may mediate against questionnaires entirely, presenting the researcher with limited research alternatives. With a colleague in rural Scotland, this researcher developed a questionnaire to assess changes in farming practices and their relationship to changing family structures. A colleague at a Scottish university warned against using a questionnaire at all, explaining that questionnaires were used by the government to collect information from farmers. Because farmers do not trust the government, they would not trust the questionnaire. Further, he suggested that merely asking about family income in the demographic section would result in the questionnaire's being trashed in outrage. A local professional advised that the only way to get information from the targeted population was to gain trust and spend time in face-to-face conversation.

Their advice was sound; after a nearly nonexistent response to the questionnaire, a farmer we had come to know allowed us to use his name in making initial contacts with other farmers in the area. Evening after evening, we visited farm families in their homes and engaged in "idle" conversation for about an hour or so, allowing them ample opportunity to feel us out. Eventually, we moved the conversation to topics of concern to our research and asked if they would object to one of us taking a few notes; none did. The outpouring of data that followed exceeded our greatest expectations; in the early days we were stunned at the breadth and detail of information our informants happily provided on very private subjects, including income.

The research approach was costly; we spent about five hours with each family. About half the time was spent in non-data related social intercourse, but it was time absolutely required in order to obtain data at all. Interviewing has been described as the backbone of social research and is described by Denzin (1970) as "the ultimate flirtation with life" (p. 188). In this case it was the ultimate flirtation with food, as the predictable mid-evening snack break, with the predictable sandwiches, cakes, and biscuits, took a toll on our personal concerns with weight, but refusing was out of the question. Considering the quality of data we were able to amass, the cost of time and subsequent dieting were worth it.

Participant-Observation: A Single Multi-Method Qualitative Strategy

The use of participant-observation in qualitative research represents something of a special category. Often conceived as a single research technique, it is, in fact, a combination of techniques (Daly, 1984; Dobbert, 1982; Edgerton & Langness, 1974). Hamilton and Hamilton's (1989) study of Karen dress was based on two years of traditional participant-observation among the Karen, a tribal ethnic group in Northwest Thailand. Karen females have only two dress styles: the one worn by all unmarried females and the one of married women, changed into during the marriage ceremony and worn for the rest of her life. If a woman never marries, she wears the unmarried style until she dies, always involved in the activities of unmarried females and treated as a child. Once cued, the observer immediately knows how to defer to a woman and can make a correct assumption regarding her responsibility in the community and family. Karen female dress, in fact, becomes a metaphor of the Karen social system and serves to maintain group solidarity and cultural continuity.

The participant-observer "lives intimately as a member of the society" (Edgerton & Langness, 1974, p. 3), sharing the people's day-to-day activities and special occasions, listening to and engaging in focused and casual conversations, and noting variations wrought by seasonal variations and life-cycle evolution. The goal is to understand life and comprehend social meaning as they do, whether or not that meaning is conscious. When the Karen were asked reasons for the style and social use of their dress, they could not provide answers. From their perspective, that's just how things are done. Nevertheless, interaction over a prolonged period demonstrated the metaphorical nature of Karen female dress relative to a cultural group whose survival was threatened by a more dominant and technologically superior state system.

Advantages of Combined Research Strategies for Home Economics Research: The Contribution of Qualitative Methods

As the following discussion summarizes, qualitative methods contribute a variety of outcomes to the research process that are not encouraged to the same degree by quantitative methods. The following points summarized some of these important contributions.

1. Comprehending social meaning: The usefulness of context. Hammersley and Atkinson (1983) suggest that "any account of human behavior requires that we understand the social meanings that inform it" (p. 9). Optimally, behavior needs to be understood in context, because the goal is a comprehension of the way "people experience, interpret, and structure their lives" (Burgess, 1984, p. 3). The less artificial the research environment, the greater the likelihood of discovering contextual meaning. Qualitative research methods vary in their ability to achieve contextual social understanding, but since human behaviors are symbolic actions, "the thing to ask is what their import is: what is it . . . that, in their occurrence and through their agency, is getting said" (Geertz, 1973, p. 10). "What people do, and say, and say they think, has a logical coherence and consistency that relates to the overall social structure of the community" (Lewis, 1985, p. 20) as well as other aspects of their lives. To isolate social behavior from its context is, therefore, to miss the opportunity to construct the fullest possible understanding of that behavior.

2. Categories of reality: The problem of self-fulfilling prophesies. In traditional questionnaire research, it is the researcher who defines the relevant variables for examination and procedures for assessing them; this is done prior to the collection of data. Hence, the questionnaire itself limits the content of the resultant data by imposing the researcher's categories of reality on the respondent. As Littrell's (1980) Ghanaian study demonstrated the risk of ignoring categories of data important to the respondent, or of including irrelevant categories, can be minimized by using some qualitative data gathering procedure prior to final formulation of the questionnaire. Regardless of research method, all researchers influence the content and analysis of data by virtue of the assumptions, hypotheses, and prejudices they necessarily bring to the research process. But the influence of the researcher's reality can be minimized by ensuring that categories that comprise choices on a questionnaire are the relevant ones of the respondents and by training all researchers to play "devil's advocate" with themselves at every stage of the research process.

3. Global perspective. As the research ex-

perience with Scottish farmers demonstrated, the relevancy of qualitative methodology in Home Economics research is obvious. Some groups of people cannot, or will not, provide quantitative data. But to ignore those populations is to ignore the breadth of variation in how families and individuals resolve the problems of living that are the concern of the field. If they are not to be ignored, a commitment must be made to some strategy for gleaning those data. In a time when there is an increasing concern in Home Economics for a more global perspective, this issue becomes even more important if such a goal is to be more than idle words. Tailoring the research method to research environment and the needs, abilities, and realities of the target population, as the examples above demonstrate (Hamilton & Hamilton, 1989; Littrell, 1980), is critical in both cross-class and cross-cultural studies.

4. Implication for theoretical development. According to Williamson et al. (1977), qualitative methods tend to be inductive strategies and are, therefore, more likely to lead the researcher to the discovery of new theoretical relationships; with quantitative methods, though clearly not always the case, the approach tends to be deductive, leading to verification or refutation of some existing theoretical construct. Hence, the goal of most qualitative research tends to be in generating hypotheses rather than actually testing them. Often qualitative research serves as an important first step in exploring ideas, hypotheses, or concepts that can be more systematically tested in a second stage of research.

5. Integration of data collection and data analysis. Qualitative research methods encourage, by their nature, continual reevaluation of previous stages in framing the next. In interviewing, for example, the researchers may discover some important line of questioning, one unconsidered previous to the start of the interviewing process. In this case, the interviewer can make the shifts necessary to accommodate more relevant lines of questioning. Other qualitative techniques—case study, ethnography, document analysis, and focus groups, for example—allow for the same interaction of data collection with data analysis. Douglas and Johnson (1977) addressed the value of this approach in sociological research that "builds its methods as it goes in accord with the demands of the subject matter and the desire to find progressively more general truths about human existence" (p. ix).

Integration requires that the researcher is an active decision maker (Burgess, 1984), one who is intimate with the phenomenon rather than separated from the social phenomena by numerical output. This reliance on the researcher throughout the process is troublesome to some who see the researcher as unscientifically tampering with the research process, but quantitative researchers do their tampering in devising the instrument (experiment) and in choosing strategies for data analysis. It is not possible to extract human judgment from any research process. Pelto and Pelto (1978) note that "if the 'personal factor' in . . . [social research] makes it automatically unscientific, then much of medical science, psychology, geography, and significant parts of all disciplines (including chemistry and physics) are unscientific" (p. 23).

6. "Small is beautiful:" Concern with sample size. Qualitative research is often characterized by small sample size; in the Karen case, a single village. But often this intense examination of one case favors the discovery of fundamental explanatory forms. Of course there will be variation in detail from one instance or case to another, but the "underlying dimensions" (Williamson et al. 1977, p. 22) of forms may be the same, and discoverable only by single intense analysis. If one wants to understand the impact of a depressed farm economy on small towns, a questionnaire administered to a large population of affected parties representing a wide universe can be very useful. But an intensive case study, focusing on only one or two representative communities, can make a qualitatively different sort of contribution to the research goal. If the case study precedes the development of the questionnaire, the questionnaire will more likely include lines of inquiry that more closely represent the reality of the respondents.

Practicality and Prejudice: Mediators Against Combined Research Strategies

A commitment to alternative or complementary methodological strategies is not an easy one to make in the political environment of contemporary academic scholarship. In the now-published cross-cultural study of body-cathexis referred to earlier (Hamilton and Chowdhary, 1989), any reference to the interview data is absent after two journals indicated interest in only the quantitative analysis. The interview data, however, are included in a more recent paper (Hamilton, 1989). Of course, journals are not the only harbour for a prejudice in favor of statistically analyzed data, regardless of appropriateness to the research question or research environment. The breadth of this prejudice is well-known by the untenured qualitative researcher who is advised to do some quick, quantitative research as a hedge against a negative tenure evaluation.

The biases that favor quantitative research are several: it is generally faster, less expensive, and since the numerical output is perceived as objective, it is more likely to be funded by the sorts of outside sources on which Home Economics has traditionally relied. These considerations are of no small consequence to the researcher under constant pressure to generate an increasing number of publications and acquire outside grants.

This is in no way meant to imply that all quantitative research is merely politically expedient or without enormous merit. But the point to this paper is that the value of the research strategy has largely to do with its appropriateness to the question being asked, to whom, and in what context. If we only ask research questions that can be answered in a way that is easily reducible to quantitative processes, then we are choosing not to ask other questions that may be more useful in comprehending the phenomenon under investigation. Not asking those questions for reasons of expediency—in time, money, popularity, or professional advancement—does intellectual harm.

The attitude reflected above about what constitutes valuable data is myopic at best. At worst, it shortchanges scholarship, understanding, and the potential for the optimal advancement for both theoretical and applied contributions by the field or discipline. Marcus and Fisher (1986) noted that recently, "theoretical debates in a number of fields have shifted to the level of method, to problems of epistemology, interpretation, and discursive forms of representation themselves, employed by social thinkers" (p. 9). As is the case with other fields, the problem of epistemology in Home Economics will not be solved by adherence to any one form of accumulating knowledge. The theoretical and applied relevancies of any field are, to an important extent, a function of the breadth and authenticity of that field's knowledge, and a variety of strategies for amassing that knowledge will encourage both.

Continued on page 18

Motivation as a Theory of Needs in Home Economics: Analysis of Alternative Paradigms

David J. Burns and Dale M. Rayman

A theory of human needs developed within the realm of the concept of motivation may provide a better understanding of how individuals and families can improve their quality of life. This paper reviews a number of motivation paradigms and compares their capacity to explain and predict behavior as evidenced in quantitative and qualitative research.

Human needs are forces (innate and/or learned) that motivate or induce an individual to action. The formation of a theory to explain and systematize these needs has been the goal of researchers for many years. Whereas human needs lead to and/or influence most (McClelland, Atkinson, Clarke, & Lowell, 1953; Peters, 1960), if not all (Nuttin, 1984; Stagner & Karwoski, 1952) human behavior, this continued attention appears justified.

A theory of human needs may help home economists to influence quality of life insomuch as it is affected by the number of existing needs that are fulfilled and the manner by which such fulfillment occurs (Gross, Crandall, & Knoll, 1980). Personal interaction is a primary means for fulfilling needs (Parsons et al., 1951), and a theory of human needs applied within a Home Economics framework may be expected to provide an understanding of how individuals and families, through interaction with the external environment, can improve their quality of life.

To provide such insight into human interaction, a theory must describe how needs are manifested by those external interactions. Such a description lies within the realm of the concept of motivation, for "psychologists conceptualize motivation as the dynamic aspect of behavior through which the individual initiates contact — i.e., enters into relation — with the world;" the concept of motivation includes not only external actions but also the identification of human needs, their origins, and the processes involved in their internal and external manifestations (Nuttin, 1984, p. 1). Thus, motivation may provide a solid basis for a theory of needs in Home Economics. A better understanding of the origins and dynamics involved in human interactions with the environment offers a chance to improve interactions and quality of life.

Several motivation paradigms currently exist; the objective of this paper is to investigate the utility of several of the primary motivation paradigms: humanistic, psychoanalytic, stimulus-response, and social learning. Each will be discussed briefly, and examples will be presented. They will be compared on their capacity to explain and predict behavior as evidenced in quantitative and qualitative research.

Humanistic Motivation Paradigm

The humanistic motivation paradigm is based on the premise that human behavior is the result of striving to fulfill one's potential as a human being; that is, human behavior is the result of biological drives to fully develop existing talents and capabilities (Weiner, 1980). Within this framework, human behavior is not affected by an individual's past, nor is it affected in total by an individual's present; it is affected by what that individual might become in the future. The goal of an individual's life is to become a fully functioning person, to reach self-actualization, or to grow and enhance the self.

Although the humanistic motivation paradigm has many proponents (e.g., Jourard and Landsman, 1980; Mahrer, 1978), the most prominent are Maslow's hierarchy of needs model (1954) and Rogers' actualization theory (1951). These theoretical models are intuitively appealing because of their attempts to explain general behavior in terms of the orderly gratification of unfulfilled needs and because of their generally optimistic view of the human condition — man is not a slave of the past but, instead, controls the future (Schultz, 1976). The primary difference between these two theories is that Rogers assumes the existence of only one need or source of motivation (the need for actualization), while Maslow postulates a hierarchy of needs which must be fulfilled, in ascending order, prior to the emergence of self-actualization needs.

Despite their popularity, humanistic motivation theories are limited because their central concept — the existence of a striving for actualization — is an axiom, and as such, is not subject to proof or disproof via quantitative methods (Weiner, 1980). In fact, quantitative research has produced virtually no information as to the existence or source of this need, any interpersonal variation in need strength, or any relationship between it and other psychological constructs (Maddi, 1976). Furthermore, quantitative research has been hindered because of the vague nature of the concepts and principles on which these models are based (Cofer & Appley), 1964; Van Raaij & Wandwossen, 1977). The limited quantitative research which has been attempted found little or limited support for the models (e.g., Alderfer, 1969; Lawler & Suttle, 1972; Mobley & Locke, 1970). For example, support for Maslow's hierarchy of needs model has been observed only in isolated incidents (Davis, 1946; Mathis, 1981; Pellegrin & Coates, 1957), or within a deprived environment (Cofer & Appley, 1964; Porter & Mitchell, 1967).

Rogers (1964), however, was of the opinion that quantitative research is an insufficient basis for testing humanistic theories. Instead, he suggested that research on such theories must be conducted from a phenomenological viewpoint using qualitative research techniques. Unfortunately, little qualitative research has been conducted by individuals other than the

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originators or proponents of these theories, hence the validity of these theories has yet to be established.

With the exception of a deprived environmental setting, this paradigm is not presently supported by quantitative research; in addition, it has not been the recipient of adequate qualitative research. In light of this, it seems apparent that the humanistic motivation paradigm is not sufficient at present as a single basis for a theory of needs without additional supportive qualitative research.

Psychoanalytic Motivation Paradigm

As does the humanistic motivation paradigm, the psychoanalytic motivation paradigm views human behavior as the result of innate forces. Unconscious innate forces, or instincts, comprise the basic element of personality (the id) (Schultz, 1976); these instincts arise from the stimulation of existing internal needs (Freud, 1938), which, in turn, represent the motivating force leading to human behavior. Behavior, then, is the result of instinctual drives tempered by the environment via defense (regulation) mechanisms. Unlike the humanistic paradigm focus, behavior in this framework is not motivated by what a person may become; instead, it is driven to a large part by an individual's past through the development of defense mechanisms or internalized restrictions resulting from societal and parental control during early childhood (Freud, 1894).

Freud's psychoanalytic theory (1938) is the most well-known theory within this motivation paradigm. Unlike alternative theories dealing with motivation, it addresses all of the central concepts of personality, thought, and action. A primary strength of this theory, when compared to the humanistic paradigm, is its greater ability to explain the existence of differences in motivation between individuals. However, because the central motivational constructs of instinct and repression are both postulated to be unconscious and because their existence has been only inferred from patient behavior and verified via inference from additional patient behavior, the results of such qualitative research have been merely an exercise in circular logic (Arkes & Garske, 1982).

Quantitative testing of Freud's psychoanalytic theory has also proven difficult, primarily because of the use of vague, inferred concepts which cannot directly be measured or observed (Mischel, 1973; Watchel, 1973). Operationalization has been virtually impossible and questions remain as to its appropriateness (Madison, 1961). As a result, the psychoanalytic theory of Freud, as presently conceptualized, does not enjoy the unequivocal support of empirical testing. Zeller (1950a, 1950b) attempted rigorous studies of the concept of repression, the cornerstone of this theory (Freud, 1914). These studies and subsequent studies (e.g., Abhorn, 1953; Holmes, 1972; Holmes & Schallow, 1969) have produced conflicting and inconclusive results.

The psychoanalytic paradigm, as presently formulated, appears to be unsuitable or inappropriate to provide accurate predictions of behavior. If one accepts the contention of Hunt (1976) that prediction is an essential component of scientific explanation, one would have to agree that this paradigm fails to explain human behavior; it appears to be insufficient as a basis for a theory of needs.

Stimulus-Response Paradigm

As do the previously discussed paradigms, the stimulus-response paradigm also offers great intuitive appeal because of the inherent rationality of its resulting theories. Contrary to the previous paradigms, however, the impact of the present external social and physical environment is a primary determinant of the nature of behavior. Also called neobehaviorism, the stimulus-response framework is based on the (behaviorist) position that all evidence in psychology must consist of publicly observable actions (Skinner, 1953); nevertheless, this paradigm also postulates the existence of unobservable processes (drives arising from biological needs) (Brody, 1983).

The models of Hull (1943) and Spence (1961) are representative of those developed under this paradigm. Inherent to both theories is the notion that behavioral motivation (drive) emanating from stimulated innate needs is general in nature: that is, it is not directed toward any specific behavior. Such drives are then related to particular activities through the process of reinforcement; for example, a drive emanating from a lack of food intake is related by individuals to the intake of food only after they experience the consequences of the reduction of the hunger that follow eating. The repeated reduction of the hunger drive through the process of eating will result in the formation of a routine response (learning). It should be noted that Hull (1952) later conditioned his stand on the general nature of drives because of evidence to the contrary (Arkes & Garske, 1982) by stating that drives were only sometimes of a general nature. Spence's theory, though similar to and based on Hull's, focuses solely on anxiety as a drive (Kausler & Trapp, 1959).

Because the stimulus-response paradigm is based on the behaviorist requirement of observable behavior, models developed within this framework, unlike those resulting from the humanistic and psychoanalytic paradigms, must be concrete and quantitatively testable. Repeated quantitative tests on the Hull and Spence models, however, have produced inconclusive results (Bolles, 1975), and questions remain as to the actual existence of the stimulus-response structure's primary construct — the drive (Bolles, 1975) and its effect on behavior (Brown & Jacobs, 1949). An additional criticism of theories developed within the stimulus-response framework is that the degree of importance ascribed to the external environment relegates man to a level of relative inability to act independently of that environment.

Although virtually no operational confusion exists in empirical testing of the stimulus-response theories as it does with the psychoanalytical theories, the results were mixed at best. The stimulus-response paradigm is also unable to provide accurate predictions of behavior. Thus, this paradigm appears insufficient as an adequate single basis for a theory of needs.

Social Learning Motivation Paradigm

The social learning paradigm has received considerable attention in recent years. Although based on the behaviorist framework, this approach does not view man simply as a pawn of the environment. It places a greater emphasis on cognition, in that behavior is determined by information processing through anticipation of reinforcement and not by reinforcement itself. By so doing, this paradigm rejects the notion of the existence of drives (Arkes & Garske, 1982). In fact, the primary determinants of behavior (including needs) are those which are learned; innate factors only set limits on behavior and the learning process (Weiner, 1980). It likewise varies from the humanistic approach by virtue of its empirical origins and by its rejection of the existence of an innate need for actualization.

The expectancy-value theories of Rotter (1954) and Fishbein (1967) exemplify the social learning paradigm. The central theme of these theories is that motivation to undertake a certain behavior is a function of the expected outcome of that behavior and the value to the individual of that outcome (Van Raaij & Wandwossen, 1977); hence behavior is driven by the empirical law of effect (Rotter, 1982). Behavior, therefore, can be explained by means of four variables: the psychological situation, or the environmental situation to which an individual is responding; behavioral potential, or the probability that a certain behavior will occur; expectancy, or the perceived probability that a behavior in a given situation will lead to reinforcement; and reinforcement value, or the strength of the reinforcement (Rotter & Hochreich, 1975).

Unlike most existing motivation theories, a specific feature of the expectancy value theories is that they have the potential to incorporate the effect of emotion (Korman, 1974). This is critical because, as Weiner (1986) noted, a motivation theory must include such an acknowledgement. Although thoroughly integrating the concept of emotion into expectancy value theories is a challenge to current social learning theorists (Feather, 1982; Rotter, 1982), emotional responses are regarded as similar to other learned behaviors and can be treated as such (Rotter, 1982).

Social learning theories were primarily de-

veloped in laboratory settings, so attention to precise operationalizations to aid empirical testing in both laboratory and natural settings has been a critical issue. Unlike that of the stimulus-response theories, empirical testing of the social learning theories has generally produced confirmatory results (Arkes & Garske, 1982; Rotter, Chance, & Phares, 1972; Stokes, 1982). The major shortcoming of theories developed under this paradigm is their reliance upon cognitive variables, such as expectancy, which often cannot be precisely observed (Wilkins, 1977). Therefore, at least at present, the social learning motivation paradigm is not sufficient as a single basis for a theory of needs, but similar to the humanistic motivation paradigm, it appears to have merit for future study.

Summary

Since motivation consists not only of external actions but also the identification of human needs, their origins, and the processes involved in their internal and external manifestations, it seems clear that motivation may provide a solid basis for a theory of needs in Home Economics. In terms of predictive value, none of the popular motivation paradigms presented is sufficient. However, two of the paradigms may show promise and warrant additional study: the humanistic and the social learning paradigm.

A theory of needs is important to home economists for it is one means through which they can influence quality of life by providing utility for research on and application to (a) family economic stability and security, (b) energy and environment, (c) food, nutrition, and health, and (d) family strengths and social environment — the four primary thrusts in Home Economics (U.S. Department of Agriculture, 1981). Understanding resource use, level of living, and level of well-being — three of the channels through which these thrusts affect family and individuals (North Central Regional Committee on Home Economics Research Evaluation, 1987) may be facilitated by such a theory. Further examination and use of the humanistic and/or the social learning motivation paradigms as a theory of needs is strongly encouraged as a means of increasing our understanding of these critical areas currently being addressed by Home Economics researchers and practitioners.

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sales to their salespeople.

- In this research most salespeople were trained to approach customers, but did not. Thus it might be advantageous to provide feedback and reinforcement for the salespeople as they improve in providing customer service.
- It is a good strategy for salespeople to infer from a customer's clothing the types of merchandise in which the customer is interested. However, beyond this salespeople need to be sensitized to the fact that it is quite easy and all too common to prejudge a customer's desire or willingness to purchase as a function of the customer's age and clothing.

In general, since so many stores have the same merchandise offerings, retailers may find themselves flourishing due to the encouragement, reinforcement, and good pay offered to sales people whose service satisfies their customers (Russell, 1987).

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Toward an Explanation of the Interrelationship Among Universal Human Needs, Values, and Goals: An Ecological Perspective

Margaret Conery Clifford

The overall goal of this paper is to develop a framework to explain the interrelationship among universal human needs, values, and goals. The author draws from the theories of Abraham Maslow, Nicholas Rescher, and David Kantor and William Lehr to define, classify, and demonstrate the interrlationship among these concepts. An ecological perspective is used for the purpose of arriving at a deeper understanding of the human condition.

Environmental situations affect the human condition and reinforce human and environmental interdependence. Although there is a growing acknowledgement that the world is more than a supportive resource for human consumption, warnings of environmental crisis are broadcast daily (e.g., depletion of the protective ozone layer, pollution of ground water, overconsumption of unrenewable resources, and overpopulation). These conditions have developed as a result of transactions by human beings as they strive to meet needs, realize values, and accomplish goals.

The purpose of this paper is to consider the role of humans in the ecological system and to develop a framework that shows the relationships among human needs, values, and goals. To define, classify, and demonstrate the interrelationship among these concepts the author draws from the theories of Abraham Maslow (Human Needs), Nicholas Rescher (Values), and David Kantor and William Lehr (Goals).

Transactional Processes

By definition a transaction is a communicative action involving two parties or things that reciprocally affect or influence each other. Interdependence is implied. As a result of various transactions with their environment, individuals, families, and organizations develop specific approaches to meet needs. Over time these approaches form complex value patterns. Values motivate (energize) human beings to decide on a course of action to reach goals, and the future of humanity is shaped by those decisions and subsequent actions. (Paolucci, Hall, & Axinn, 1977).

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Classification of Human Needs

Abraham Maslow (1954) hypothesized that humans are motivated toward goal-directed behavior according to a hierarchical structure of needs: physiological, safety, love, esteem, and self-actualization. He believed that although needs exist simultaneously, the greatest part of one's time and energy is directed toward fulfilling the most basic yet unsatisfied need (Clifford, 1981). Only when the lower needs have been more or less satisfied do the higher needs become active (Maslow, 1968). Maslow felt that by satisfying these higher needs humans would become all that they are capable of becoming.

For the purpose of this paper Maslow's five levels of needs have been consolidated into three categories:

1. Physical/Security Needs — When the organism is dominated by the physical needs (basic biological needs) all other needs may be pushed into the background. If basic physical needs are met, the security needs (safety and protection against the dangers of the environment) become more prominent and may dictate a preference for familiar rather than unfamiliar things and for undisturbed routine or rhythm, the security of an orderly, predictable world.
2. Psycho-Social Needs — The psychosocial (relatedness) needs expressed in transactions with other persons include the needs for belongingness, love, and esteem. When the physical and safety needs are met fairly well, the individual experiences the need for a close, emotionally satisfying relationship with another person.
3. Self-actualization/Spiritual Needs—The clear emergence of these needs usually rests upon prior satisfaction of lower-level needs. Self-actualization refers to doing what one is fitted for, the fulfillment of one's capabilities, and acceptance of one's own intrinsic nature. A self-actualizing person may endure hunger, physical danger, and other forms of deprivation to satisfy this need.

According to Maslow and other existential phenomenologists, such as Carl Rogers (1951), behavior and becoming is the result of the interaction between environment and individuals as they see and interpret themselves through the developing self-concept (Mead, 1976). Throughout development, environmental influences interact with the genetic nature of the individual. As individuals attempt to meet needs, transactional feedback processes are initiated, and a personal values framework is developed.

Human Values Classification

Various fields of study have defined values in different ways to fit a particular frame of reference. This paper focuses on values as conceptions of benefit (e.g., good, profit, advantage, gain, avail, desideratum) that influence the selection and appraisal of actions and events. The author's definition of values is derived from Nicholas Rescher's supposition that "a value is invariably bound up with a benefit" (Rescher, 1982, p. 16) and from Clyde Kluckhohn's definition of a value as

> *a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available means and ends of action (Kluckhohn, in Rescher, 1982, p.2).*

Rescher (1982) classified values according to the types of benefit at issue and proposed that the notion of benefit corresponds with that of human needs. Because we have a relatively reliable view of human needs and interests, he concluded that we also have a plausible survey of potential benefits. These can be projected into a corresponding classification of values (see Figure 1).

Figure 1. Classification of Values by the Nature of Benefit

Value Classification	Value Benefits
1. Physical	health, comfort
2. Material/Economic	security, productiveness
3. Sentimental	love, acceptance
4. Social	courtesy, neighborliness
5. Professional	recognition & success
6. Intellectual	intelligence, clarity, competence
7. Moral/Political	honesty, fairness, justice
8. Spiritual	peace of mind, wisdom
9. Aesthetic	beauty, symmetry, balance

adapted from Rescher (1982, p. 16)

Rescher grouped values according to the generic qualitative nature of the benefit they involve. He illustrated these benefits in the examples below (the numbers following each statement correspond to the values enumerated in Figure 1): being in good standing with ourselves (8), or with our group (4), or with our professional colleagues (5), having welfare of mind (6), or of body (1), enjoying pleasantness in the condition of labor (2), or of life (7), or in the attractiveness of the environment (9) (adapted from Rescher, 1982, p. 16). Types of values including their generic benefits can be further classified according to universal human goals.

Universal Human Goals

As explained by David Kantor and William Lehr (1975), all human beings, in whichever way they attempt to realize them, seek certain goals:

> *(1) affect, that is, intimacy and nurturance—that sense of loving and being loved by someone in our world; (2) power, the freedom to decide what we want, and the ability to get it—whether it be money, goods, or skills; (3) meaning, or some kind of philosophical framework that provides us with explanations of reality and helps us define our identity—so that we glean a sense of who and what we are, and perhaps who and what man is (Kantor & Lehr, 1975, p.38).*

Kantor and Lehr (1975) conceptualized a model for goal-seeking activity that is six dimensional: the three target dimensions or goals—affect, power, and meaning—and the three access dimensions (resource channels)—space, time, and energy. According to Kantor and Lehr, all goal-seeking activity is related in some way to an attempt to gain affect, power, and/or meaning in life. The access dimensions of space, time, and energy are the physical media through which humans mark off pathways for attaining the targets they seek. Space, time, and energy, as resource channels, significantly influence resource exchange and goal-seeking activity for human beings. Without space there can be no place for an exchange event; without time no sequence and therefore no informational processing; without energy, no vitality, no feedback, no exchange (Kantor & Lehr, 1975). Life is a continual series of choices regarding how to regulate time, space, and energy to meet basic survival (physical/security), relational (psycho-social), and growth (self-actualization/spiritual) needs, to realize values, and access the targets of affect, power, and meaning in life. Figure 2 illustrates a conceptual framework which shows types of needs, types of values (including value benefits), and universal human goals. Time, space, and energy are resource channels or means of accessing goals through transactional processes that include meeting needs and realizing values.

Human Values and the Ecology of Choice

How individuals choose from available resources and regulate time, space, and energy to meet needs depend on their ability to organize incoming events and to change in response to differing environmental conditions (Paolucci et al., 1977). Value orientations underlie the choices made by humans.

Humans are dependent on all components of their environment to satisfy needs and desires (Bubolz, Eicher, & Sontag, 1979). Though the needs of most animals are met through instinct, homo sapiens (wise beings) can reason, remember, and make choices based on thinking and reasoning (Paolucci, Faiola, Thompson, & Kiser, 1978). This choice- making ability gives the human a certain dignity as a self-determined, goal-directed being.

The Ecological Perspective in Human Economics

In his essay, "Economics: It's Effect on the Life Systems of the World," Thomas Berry, a cultural historian, wrote, "Only now do we begin to consider that there is an economics of the human as a species as well as an economics of the earth as a functional community" (Berry, in Lonegran & Richard, 1987, p.9). The dual aspects of cost and benefit provide a key for an evaluation of values. From a holistic point of view, what is at issue is not simply a cost-benefit situation with regard to one fixed value for one person, but rather a complex value economy that embraces a constellation of values. As humans strive to meet personal needs, personal values serve as a guide. But if humans are to survive and thrive, a proper balance among the different sorts of value benefits is essential so that universal human and environmental needs can be served. Berry's view supports the relationship between human needs, human values, and universal human goals.

Imbalance and crisis in the system occur when human values and human needs conflict. Crisis also occurs when persons or organizations regulate time, space, and energy in an effort to meet immediate needs but fail to realize the long-term needs of the system and the interrelationships among needs, values and goals. In these ways false values may develop. "A false value—like a false friend—is false in the sense of deception: it seems to be what it is not" (Rescher, 1982, p.139). False values misguide, and humans who live by them desire what only appears to meet needs. Specific values directly influence the way individuals or groups exchange human and en-

Figure 2. Integrative Framework of Universal Needs, Values, Goals, and Resource Channels

Human Needs Classification	Corresponding Values: Domains	Corresponding Values: Benefits	Universal Human Goals
Physical/Security Needs—the basic biological and physical needs for air, water, sunshine, food, clothing, shelter, and safety.	Physical Values (1)	Health Comfort	POWER—the freedom to decide what we want and the ability to get it whether it be money, goods, or skills.
	Material/ Economic Values (2)	Economic Security Productiveness	
Psycho-Social Needs—for personal interaction, the company of others, self-esteem, and the esteem of others.	Sentimental Values (3)	Love Acceptance	AFFECT—intimacy and nurturance; the sense of loving and being loved.
	Social Values (4)	Courtesy Togetherness Neighborliness	
	Professional Values (5)	Recognition Success	
Self-Actualization/Spiritual Needs—the need to understand the mysteries of human existence, the natural environment, and our place in it.	Intellectural Values (6)	Intelligence Competence	MEANING—some kind of philosophical framework that provides us with explanations of reality and helps us define our identity so that we can glean a sense of who and what we are and who and what man is.
	Moral/Political Values (7)	Honesty Fairness Justice	
	Spiritual Values (8)	Peace of Mind Wisdom	
	Aesthetic Values (9)	Beauty Symmetry Balance	
Resource Channels: Time Space Energy			

Adapted from Maslow (1954); Rescher (1982); Kantor and Lehr (1975)

vironmental resources to access goals (affect, power, and meaning). But from an "echo" system point of view (Boulding, 1985), human and environmental resources also influence value formation. Boulding's play on words emphasizes the interdependent nature of the relationships among human/environmental resources and human values, needs, and goals.

Thomas Berry's study of the dynamics of the planet earth and the role fulfilled by human beings within the dynamics of the universe led him to the following conclusion:

> *In the design of nature there exists a mutually enhancing relationship. Our difficulties arise from our efforts to make the earth subservient to our phenomenal ego rather than to discover our true grandeur by fulfilling our role within the larger scheme of things (Berry in Lonergan & Richards, 1987, p.105).*

The needs of human beings and all other species are intrinsically connected. This is evidenced in the natural environment by relationships as basic as the exchange of carbon dioxide and oxygen between plants and animals. It is through a delicately balanced intercommunion and functional exchange of needed resources that any species continues to exist. How human beings function to meet needs depends on the ability of individuals to perceive stimuli from the environment and make choices from available resources. Values come into play in all stages of the act of choice (Paolucci et al., 1977). Valuing as a process structures the relationship between individuals and their environment.

The Coming Ecological Age

An ecological perspective emphasizes a rationale that is not only technical and economic but also social and spiritual. It promotes self-actualization but necessitates self-transcendence. The coming "ecological age" envisioned by Thomas Berry contrasts markedly with an individualistic and self-aggrandizing world view symptomatic of the industrial era. The prevailing conceptualizations of an age dominated by technical and economic rationality (Toffler, 1980) include (a) the assumption that humans have unlimited needs or wants and (b) the belief that if you do or have something good more of the same is better. Too much emphasis on these modes of rationality has resulted in more and more isolationism and in people rushing madly about trying to satisfy their wants and desires, meet deadlines, and save time, space, and/or energy. Much of this activity does not help to access the goals of affect, power, or meaning in life. Such frantic hyperactivity goes against the natural flow and violates the harmony in nature.

> *Of many wheels I view, wheel without wheel, with cogs tyrannic, moving by compulsion each other, not as those in Eden, which wheel within wheel, in freedom revolve in harmony and peace (Blake, in Erdman, 1982, p.144).*

William Blake's poetic insight highlights the importance of a world of humans who recognize the interdependent nature of all human and environmental systems, a world in which human values and human needs motivate not by compulsion (tyrannically or conflictually) but rather in harmony, integration, and peace. Fritjof Capra (1983) in his book, *The Turning Point*, presented his vision of a new reality. Capra suggested that we examine the complex web of social and ecological relations. For a future that will work, Capra called for a transvaluation of value patterns—a paradigm shift that will result in a profound transformation of our social institutions and ideas (Capra, 1983).

Conclusion

The purpose of this paper was to pose a framework of the ecological interrelationship between human need systems, human value systems, and universal human goals. These systems and their hierarchically arranged patterns underlie the transactional processes that occur between individuals and the environment that surrounds them (Paolucci et al., 1977). Human needs and human values are significant concepts for research in Home Economics/Human Ecology. By categorizing human needs and human values within the three specific goal domains of affect, power, and meaning, values and needs can be identified for each domain. Further conceptualization and research through quantitative and qualitative analysis are needed to test how well this structure represents the relationship between needs and values held by specific groups of people.

Relationships among domains of values and needs in different cultures can be compared to determine similarities and differences within and between cultures. In addition, domain analysis can be conducted to assess compatibilities and contradictions between and within each domain. From these analyses, the impact of values on motivation and behavior might be predicted and interpreted more effectively.

Research is needed to identify transactional processes that work for human beings as well as their environment. Awareness of the interrelationship between need systems and value systems may lead to more effective and more prudent patterns of accessing universal goals. Faulty patterns may be recognized and systems of access readjusted in families as well as organizations so that all members can more effectively exchange resources to achieve the goals of affect, power, and meaning in life.

The challenge lies before us to further conceptualize, formulate hypotheses, and develop research methods appropriate for this topic. Further development will expand our understanding of the human condition and the critical issue of our social responsibility as effective stewards of our environments.

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Home Economics Name Study

Frances Shipley

It is important that the name of a profession provides an easily recognizable and meaningful identity. In the past twenty years, much debate has focused on the name *Home Economics*, and some Home Economics units in colleges and universities have changed their names.

Available research does not indicate if professionals believe the new names are more functional or more preferred. As the field of Home Economics prepares for the twenty-first century, it is important to know how professionals in the field perceive the function of the profession's name and the name Home Economics. In 1983-84 Kappa Omicron Phi, Home Economics Honor Society, completed a national study to determine the active membership's belief about the function of the name of an academic unit and to identify the most preferred name for that unit. It should be noted that the motivating reason for conducting this research was the philosophical belief that through participation in research, students would value research and gain knowledge of the research process.

Kappa Omicron Phi members participating in the study included 52 active student chapters, 60 Alumni Chapter-At-Large (ACAL) members and 17 members of local alumni chapters. An instrument adapted by Sandra Linck and reported in the Summer 1982 *Journal of Home Economics* was used for the project (Linck, 1982). Five hundred sixty-one instruments were analyzed for the purpose of this report.

Population Characteristics

Demographic information indicated that 184 or 33 percent of the respondents were in Food and Nutrition-related majors; 122 or 22 percent were in the Home Economics Education major; and 55 or 10 percent were Fashion Merchandising majors. Individuals in these three majors accounted for 64 percent of the respondents. The remaining 35 percent of the respondents reported majors in Child and Family, Clothing and Textiles, Family Economics, Housing and Interior Design, and General Home Economics.

The greatest number of respondents were from units identified as Home Economics or had Home Economics as part of the unit name. This group accounted for 520 or 93 percent of the respondents. Twenty-four or 4 percent of the respondents were from units identified as Family and Consumer Studies or a derivation of that name, while only fourteen or 2.5 percent were from units identified as Human Ecology.

The respondents were primarily from small colleges and universities. Fifty percent of the respondents were from Home Economics units having 200 or fewer students. Only 10 percent of 58 respondents were from units of 400 or more majors.

College students, sophomores through seniors, made up 72 percent of the respondents, 23 percent were active professionals, and 3.9 percent were currently not employed in the profession. Forty-eight percent of those participating were 19 to 21 years of age, 26 percent were age 22 to 30 and 23 percent were age 31 and over.

Name Function

Respondents completed a forced choice instrument. This required them to compare each of thirteen different functions of the name of an

Table 1—Means of Thirteen Functions

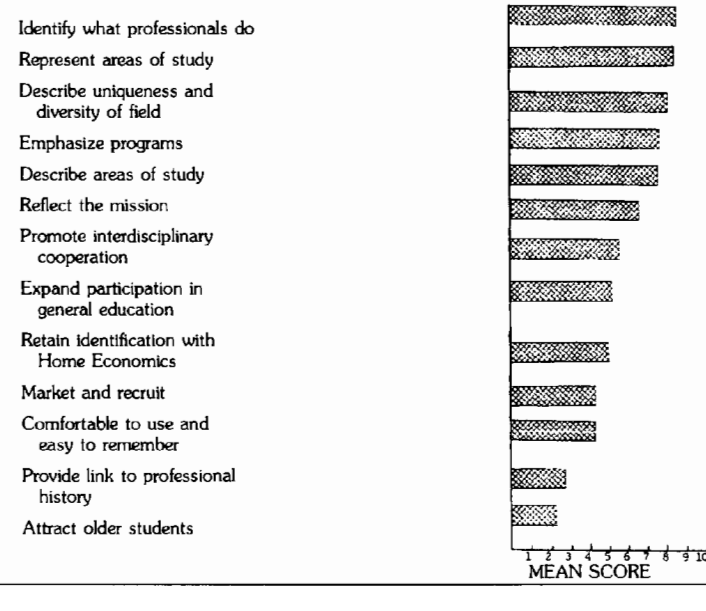

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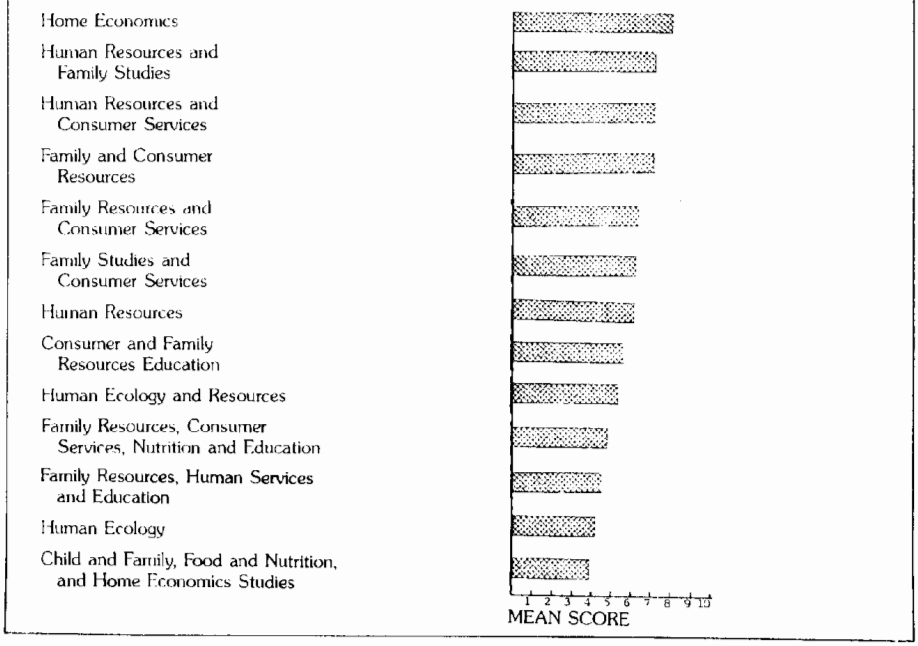
Table 2—Means of Thirteen Names



academic unit with all the functions identified and select in each instance the function they deemed most important. The function most frequently chosen (mean of 8.6) was that the name should "readily identify what professionals do." This was closely followed by "represent the areas of study in this department" with a mean of 8.5 and "describe the uniqueness and diversity of our field" with a mean of 8.2. The mean scores of these three functions differed only .40 (Table 1).

Preferred Name

Each participant then used an identical process to identify the most preferred name for the academic unit. The most frequently chosen preferred name, having a mean score of 8.4, was Home Economics. Human Resources and Family Studies had the second highest with a mean of 7.4, followed by Human Resources and Consumer Services with a mean of 7.1. The least frequent name chosen was Child and Family, Food and Nutrition, and Home Economics Studies, with a mean score of 4. Human Ecology was next to the least frequent choice by this group of respondents with a mean of 4.3. Although the name Home Economics was most frequently chosen, only 33 percent of the population chose this as the most preferred name. The remaining 67 percent of those participating chose other names as the most preferred (Table 2).

Significant Findings

Chi-square analysis was used to identify significant differences in choices from that likely in a normal distribution. This analysis indicated that the major of the respondent was a significant factor in the name chosen. The chi-square score was 164.97 and was significant to the .001 level. The only group of majors who did not choose Home Economics most frequently was Family Economics majors. These individuals most frequently chose Human Resources and Consumer Services as the preferred name. It is important to note that the only group of majors that had over 50 percent of the respondents choose Home Economics as the preferred name was Home Economics Education majors.

The current name of the unit with which the respondent was associated was a significant factor in the name chosen, with a chi-square score of 67.22 at the .05 level of significance. The majority of the respondents chose their current name most frequently.

A significant chi-square was in the current status of the respondent and the most important function of the name. A chi-square score of 106.55 at the .001 level of significance was obtained. An analysis of chi-square frequencies indicated that active professionals most frequently chose "retain identification with home economics" and "reflect the mission" as the most important name functions. Neither of these functions were included in the four functions most frequently chosen by the total number of respondents.

The fourth significant chi-square was in the comparison of age to the function chosen. The age by function chi-square score of 91.03 was significant at the .01 level. Participants age 31 to 50 most frequently chose the function "emphasize programs." Those age 50 and over chose the function "retain identification with home economics" as most important. The most frequent choice of those under 30 was "identify what professionals do."

Conclusions

The three name functions chosen most frequently speak to the need to establish identity for the field. Because of the nature of the instrument used to collect the data, the choice of name function to name chosen could not be analyzed statistically. It would be helpful to know if there is a relationship between these two variables.

Data from the survey indicate that most individuals are from units using Home Economics as the unit name and that Home Economics was selected as the most preferred name. However, the significant chi-square scores for current unit name by preferred name could be interpreted as indicating that those individuals within units using a name other than Home Economics are satisfied with that name.

The significant chi-square score for major by preferred name would seem to support the belief that individuals in more specialized majors have less preference for the name Home Economics.

The name Home Economics was most frequently chosen as the preferred name; however, the fact remains that the majority of the respondents chose one of the other twelve names as the most preferred. This finding seems to reflect the current lack on consensus among those within the field of Home Economics about their professional name.

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