DOCUMENT RESUME

ED 043 773 24 VT 011 879

AUTHOR Gorman, Anna M.
TITLE Report of the National Research Conference on Consumer and Homemaking Education (Columbus, Ohio, June 2-5, 1970). Leadership Training Series No. 31.
INSTITUTION Ohio State Univ., Columbus. Center for Vocational and Technical Education.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Bureau of Research.
BUREAU NO BR-7-0158
PUB DATE Oct 70
GRANT OEG-3-7-000158-2037
NOTE 155p.
AVAILABLE FROM The Center for Vocational and Technical Education, The Ohio State University, 1900 Kenny Road, Columbus, Ohio 43210

EDRS PRICE EDRS Price MF-$0.75 HC-$7.85
DESCRIPTORS *Conference Reports, Consumer Economics, *Consumer Education, Curriculum Development, *Educational Research, *Homemaking Education, Occupational Home Economics, Research Design, Research Methodology, *Research Needs, Research Problems, Teacher Education

ABSTRACT

To determine priorities for critical problems facing consumer and homemaking education and plan research projects which focus on these critical problems, a 5-day conference was attended by 107 vocational-technical education specialists and educators. Conference sessions were planned to (1) identify critical research problem areas and prepare a priority list, (2) describe research strategies, methodologies, and institutional-state resources to contribute to the solution of these problems, (3) determine lines of coordination for completion of research projects, and (4) disseminate conference proceedings. Activities included panel discussions and reactions, group work, and these presentations: (1) "The Challenge of Being One" by A.J. Miller, (2) "What's Wrong (Right) with Evaluation" by J. Walker, (3) "Simulation Materials and Techniques: Instructional Tools for Vocational Education Leadership Preparation" by D.L. Ward, (4) "The DELPHI Technique: A Tool for Inquiry," by K.E. Gray, (5) "Developing a Research Problem" by F.C. Pratzner, and (6) "Differentiated Staffing for Vocational and Technical Education in the Community Junior College" by J.P. Arnold. (SB)

Leadership Training Series No. 31

PROCEEDINGS OF THE NATIONAL RESEARCH CONFERENCE ON CONSUMER AND HOMEMAKING EDUCATION

Columbus, Ohio
June 2-5, 1970

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION

THE OHIO STATE UNIVERSITY
1900 Kenny Rd., Columbus, Ohio, 43210

The Center for Vocational and Technical Education has been established as an independent unit on The Ohio State University campus with a grant from the Division of Comprehensive and Vocational Education Research, U. S. Office of Education. It serves a catalytic role in establishing consortia to focus on relevant problems in vocational and technical education. The Center is comprehensive in its commitment and responsibility, multidisciplinary in its approach, and interinstitutional in its program.

The major objectives of The Center follow:

1. To provide continuing reappraisal of the role and function of vocational and technical education in our democratic society;

2. To stimulate and strengthen state, regional, and national programs of applied research and development directed toward the solution of pressing problems in vocational and technical education;

3. To encourage the development of research to improve vocational and technical education in institutions of higher education and other appropriate settings;

4. To conduct research studies directed toward the development of new knowledge and new applications of existing knowledge in vocational and technical education;

5. To upgrade vocational education leadership (state supervisors, teacher educators, research specialists, and others) through an advanced study and inservice education program;

6. To provide a national information retrieval, storage, and dissemination system for vocational and technical education linked with the Educational Resources Information Center located in the U. S. Office of Education.

LEADERSHIP TRAINING SERIES NO. 31

PROCEEDINGS OF
THE NATIONAL RESEARCH CONFERENCE ON CONSUMER AND HOMEMAKING EDUCATION

ANNA M. GORMAN

The Center for Vocational and Technical Education
The Ohio State University
1900 Kenny Road
Columbus, Ohio 43210

OCTOBER 1970

INTERIM REPORT

PROJECT NO. 7-0158

GRANT NO. OEG-3-7-000158-2037

The material in this publication was prepared pursuant to a grant with the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official Office of Education position or policy.

This publication has been prepared for distribution to selected agencies and individuals on a complimentary basis as permitted by funding under the terms of the federal grant. Additional copies have been produced from local funds for distribution on a cost recovery basis to assure wider dissemination of the document.

U.S. DEPARTMENT OF
HEALTH, EDUCATION AND WELFARE

Office of Education
Bureau of Research

PREFACE

This publication is the report of the National Research Conference on Consumer and Homemaking Education which was held to assist individuals in implementing the charge of Part F in the Vocational Education Amendments of 1968. In fulfilling the obligations and opportunities inherent in consumer and homemaking education, research and development plays a viable role. It was the purpose of this conference to bring to bear a wide range of talents and resources in the identification of national-level research and development priority problems, and to identify ways and means through which the professional community could impact on these problems.

In addition to this publication, individuals will be interested in reading the publications which were developed concurrent with plans for the conference, *Bibliography of Research on Consumer and Homemaking Education* and the publication following the conference, *Review and Synthesis of the Bibliography on Consumer and Homemaking Education*.

We acknowledge the following persons for their contributions in completing this report: Anna M. Gorman, project director, and A. J. Miller, coordinator for development and training, The Center for Vocational and Technical Education. We appreciate the efforts of the following persons who served as reviewers for this publication: Beverly Crabtree, chairman of home economics education, University of Missouri; and Gwendolyn Newkirk, associate professor of home economics education, University of Minnesota. William Hull and Frank Pratzner, research specialists at The Center, also gave invaluable assistance as reviewers.

Robert E. Taylor
Director
The Center for Vocational
and Technical Education

INTRODUCTION

With the passage of the Vocational Act of 1963 and the Vocational Education Amendments of 1968, many new challenges have emerged for vocational educators. Traditional programs have been given new directional emphases. Specific proportions or allocations of funds have been designated for helping individuals who have learning and occupational problems. Programs are to be held accountable for the products they produce and this involves the evaluation of student learning. These and many other challenges have led to the need for a concerted national effort in fundamental and applied research which focuses on critical problems inherent within these challenges.

CONFERENCE OBJECTIVES

Critical problems and issues challenge Consumer and Homemaking Education today and these require research for their solution. A national research conference was held to: 1) determine priorities for the critical problems facing Consumer and Homemaking Education and 2) plan research projects which focus on these critical problem areas. More specifically the objectives for the research conference were:

1. To identify critical research problem areas in Consumer and Homemaking Education that are of national significance.

2. To identify a priority list of researchable problems.

3. To describe research strategies, methodologies, and institutional-state resources to contribute to the solution of critical problem areas.

4. To determine lines of coordination for completion of research projects.

5. To disseminate the conference proceedings, including the proposed research projects, and assist in the dissemination of the completed project proposals.

The program for the research conference is contained in Appendix A.

CONTENTS

PART I

CONFERENCE OBJECTIVES 1 AND 2:

To identify critical research problem areas in Consumer and Homemaking Education that are of national significance.

To identify a priority list of researchable problems.

PART I

PRE-CONFERENCE ACTIVITIES

A tentative list of critical research problem areas in Consumer and Homemaking Education was developed by use of the DELPHI Technique (see Gray paper for description of the DELPHI Technique). Eighteen individuals were selected to serve as experts in developing the list (Appendix B). The experts represented, at the least, seven areas: business education, consumer and family economics, distributive education, economic education, home economics, home economics education, and vocational education.

Four questionnaires were developed by the project director to implement the concepts of the DELPHI Technique. The sequential-type questionnaires were completed from February to May 1970, by the experts (Appendix C).

CONFERENCE ACTIVITIES

PRIORITY RESEARCH PROBLEM LIST

Participants (Appendix D) received the tentative list of critical research problems (pp. 139-141) on Consumer and Homemaking Education in the registration packets. This list formed the background for the development of a finalized list by the conference participants.

SUMMARY OF COMMENTS RELATING TO THE "REAL WORLD OF THE CONSUMER"

Three people were responsible for leading a discussion of the "Real World of the Consumer." The purpose of the discussion was to jar the participants into thinking and deciding upon priority problems that, in fact, were "real for people" and not just academic and/or administratively interesting. A summary of their comments follows.

Based upon data from 12 nutrition aides who work with 450 families in Mahoning County, Ohio, Converse concluded that the problems encountered by families living in poverty as they relate to nutrition and food include: first, there is a lack of availability of stores for purchasing of food. This problem was pivotal to the development of other needs, for example, the need for transportation and the need for more food stamps and/or money because

of higher prices associated with independent grocery store ownership. Second, food and money for food running out before the end of the month is another problem area. One of the educational problems is helping these families to do grocery list planning to include food to fill up the family as well as properly nourish them. Another educational problem is helping these families to know what is the best buy in the neighborhood store.

Other problems associated with rural poverty families have to do with the language or educational barrier. They lack general education competencies such as use of the English language and mathematics. How is it possible for them to know what is a good buy without these basic skills?

There are many more immediate concerns caused by lack of modern conveniences facing these individuals. They do not have water in their houses. Water has to be carried for dishes and bathing, and many children stay home from school rather than attend when they know they are not as clean as the other children. It is much easier to buy prepared food because of lack of water and refrigeration, and it is difficult to buy in quantity because of these lacks.

Converse suggested the use of aides was of great assistance to her and to these families "for there are not enough of us (home economists) to help those in need." She said an aide, in order to be successful must be sincere, tactful, know when to go away when not wanted, and know how to give suggestions. She found that most families responded to the aide, if she (the aide) can adjust to their way.

Rosenfield gave a general description of the level of poverty in the United States and of the inadequacy of funding under the present system of defining poverty.

Before adequate legislation could be passed (legislators are trying to find answers to the poverty problem), the following questions must be answered:

1. How do welfare families spend food money?

2. What do we know about our social programs?

3. How do families cope with their problems? What are their choices?

4. Do work incentives work? Do families need work incentives?

5. How do you help children escape poverty?

Rosenfield stressed three interrelated problems of families living in poverty. They do not have enough money; there is

inadequate housing, and transportation is nonexistent. While there were many training programs there was not enough documentation of their impact. We have a tendency to "blame the poor for being poor." Rosenfield concluded that neither work alone nor money alone was an escape from poverty.

Hendricks discussed what disadvantaged people wanted most, barriers to their getting them, and research needed.

She felt that people living in poverty want most:

a. A job they are able to perform. They want to earn their own way to fulfill their concept of being a worthy human being.

b. Independence. They need transportation before they can take advantage of day care centers, employment, and clinics. Before they can become economically independent, they need to know how to wisely budget the money they have; they need to have special considerations given to them, such as checks every two weeks while they are learning to budget money.

c. A place to live.

Among the barriers to attaining the above goals were:

1. Middle class standards
2. Cultural standards
3. Communication
4. Television advertisement
5. Role concept
6. Time for learning
7. Poor image

Hendricks concluded that research on each of the following problem areas was needed:

1. Kind of jobs that fit their capabilities.
2. How to strengthen role concepts.
3. Type of teacher these people will accept.
4. Type of instruction for them (low income people themselves).

5. Type of instruction for teachers of people with low income including internships and/or scholarships.

SUMMARY OF "PANEL DISCUSSION OF THE TENTATIVE LIST OF PRIORITY RESEARCH PROBLEMS"

Four members of the DELPHI team of experts served as reactors to: 1) review for the participants the rationale used in making decisions regarding priority research problems on Consumer and Homemaking Education; and 2) react to the tentative list developed by sharpening up of problem statements, commenting on unresolved research problem areas, and relating to parallel research studies from other fields which should be done. The tentative list of priority research problems is in Appendix C.

Allen suggested a background of social and economic problems of society which give rise to educational programs. The National Vocational Education Advisory Panel recommendations gave rise to the wage-earning aspect of home economics education in 1963 and the consumer education, disadvantaged, and dual-role emphases in 1968. She characterized home economics education as a process where learnings are applied, practical, useful, continuous.

The problem areas endorsed by Allen as being of prime importance were as follows:

> The development of programs to impact on three major problems of our society: upgrading of household workers (two million of them); the development of day care centers for children (staffing and management); and adult programs in home economics education to assist welfare families in child care and resource management.
>
> Curriculum research and/or revision to take into account the changing role of women in relation to the home and family (i.e., the dual-role). Such research should also take into account the inclusion of high school boys in home economics classes.
>
> From Questionnaire No. 2 (Appendix C). Action research to find and/or develop ways of instituting curriculum changes at a more rapid pace. In today's world, it takes too long for the "best we know to do" to be universally done.

Bymers expressed concern that of the top 27 priority research problems derived by use of the DELPHI Technique, 15 or 16 fell into "breaking, packaging, and standardization" techniques rather than being of a substantive nature.

Bymers then discussed some priorities which she believed were pertinent for the group. These were as follows:

1. New look at occupants' right-to-shelter. We need to explore ways disadvantaged families can achieve equity in shelter.

2. Investment in housing, a social investment in health.

3. Perception of money. How do people perceive money?

4. Point-of-purchase consumer information. How do you get information to the point-of-purchase? What is the delivery system?

5. How to "sell" entrance into household services without stigma attached.

6. How to expedite curriculum change.

7. How to make use of cooperative techniques in solving problems.

Hurt stated that we need to concentrate our research efforts on focal points in home economics education. We need to be sure that we have agreement on acceptable definitions of the terms we are using. Among the list of problem areas suggested by the panel of experts, some can definitely be classified as problems in "consumer and homemaking education," but others are problems in "occupational home economics," some "consumer education," some "family economics," and some are "personal economics" problems. If we were discussing only problems in consumer and homemaking education, we need to think in terms of problems related to instruction and curriculum in this particular aspect of the home economics field. Problems in the substantive areas would be appropriate for research by those in the subject matter content areas and not by home economics educators. A team approach could also be taken with home economics educators and subject matter content researchers selecting for study a problem which related to both fields and each selecting the aspect of a problem area appropriate to his particular field.

Consumer education is an important part of consumer and homemaking education programs today. Research is needed on how to teach so people become better consumers. She stated that the problem of placement of content at different developmental levels is an important one. We need to define our terms here too. Are we teaching consumer education or consumer buying?

In thinking of problems in consumer and homemaking education which need research, we need to look at the total scope of the

program. How to teach nutrition education so people change their eating habits needs as much research as consumer education. What concepts are most important to teach in preparing for the dual-role also needs study. Our legislation asked us to do more about encouraging professional leadership. What factors contribute toward professional leadership development is a problem not on the list, but does need study.

Hurt remarked that another issue we need to resolve as we think together is whether we want to identify research and/or developmental problems. How much attention should be given to basic research studies? To developmental studies?

Further research is needed to find out what is the relationship between competence in home economics and occupational competence in home economics and occupational competency. One study on the relationship between home environment and success on the job was conducted by Marguerite Scruggs at Iowa State University. We need to build on that study to learn to what extent home economics education can make a difference.

She said another study needed is the identification of the basic competencies in homemaking and family life which, if students would attain by the time they graduate from high school, they would have some assurance of success in establishing and maintaining a home and family. If we had such a list identified, we could develop various strategies for teaching so we could be sure students had acquired the desired competencies.

What to include in a curriculum and how to teach so disadvantaged individuals can find a better life needed much further study.

As we look ahead to the time when we have fewer socioeconomically disadvantaged individuals and families in our society, we need to consider the contribution which can be made by home economics. At the present time our services are much in demand but what will we be able to offer when most Americans are in the middle class? Or are affluent? Research is needed to help us be ready for expected changes in society so we can continue to make a worthwhile contribution.

Warmke endorsed the following related problems:

a. Develop a comprehensively coherent conceptual framework which demonstrates how personal economic decision-making is related to aggregate economic activity and vice versa.

b. Develop curriculum guides to implement the conceptual framework indicated in letter a.

c. Develop a selected bibliography of study materials that can be used by both teachers and students to implement the teaching of the conceptual framework indicated in letter a.

d. Develop student materials to accompany the curriculum guides indicated in letter b.

e. After sufficient teacher and student materials and strategies have been developed, conduct experimental research to compare the relative effectiveness of the various materials and approaches.

Warmke reported that the National Personal Economics Committee had addressed itself to sub points a, b, c, and d (items listed in paragraph above). The materials developed as a part of the National Personal Economics Project are available through the Joint Council on Economic Education.

Warmke indicated a need for testing instruments on consumer competencies. He discussed a new test developed by the Psychological Corporation under the sponsorship of the Joint Council on Economic Education and stressed that an important feature of the instrument was that it related personal economic decision-making to the total economy and vice versa.

Warmke enumerated three individual economic roles that might be examined as part of the home economics curriculum, via worker, consumer, and citizen. He stated that as a worker an individual is engaged in earning or receiving an income; the major activities of the consumer as a user of income include spending, borrowing, saving, and investing. As a citizen the individual influences collective decision-making and, therefore, influences the regulation and allocation of public versus private goods. He stated that these roles and activities of the individual could form the content areas for personal economics which, in turn, could be analyzed through a decision-making process that would include: 1) identifying the activities an individual might choose to undertake, 2) examining the cost-benefit relationship of each individual consumer decision, and 3) determining the effects of the whole system on individual actions and the effects of the individual actions on the whole system.

Warmke closed his presentation by discussing a *Study Materials Report* prepared as a part of the National Personal Economics Project. The report is to supplement curriculum guides prepared for home economics, business education, and the social studies. The committee, Warmke stated, examined some 1700 individual study materials. Less than one out of 10 of the materials examined related individual consumer decision-making to the total economy. He stressed the need for materials which go beyond buymanship.

SUMMARY OF DISCUSSION FOR
FINALIZED PRIORITY PROBLEM LIST

Eight small groups met after the panel discussion to: 1) evaluate the tentative priority research problem areas (Appendix C, pp. 139-141) in terms of their own insights in Consumer and Homemaking Education, and 2) suggest changes with the involved rationales in the priority of the problems.

Working Notes Summary. At least three groups were concerned with the need for definitions, for example, research, researchable problem, consumer and homemaking education. Three groups were concerned with the type of research which was most pertinent to the needs--pure, and/or experimental, and/or developmental. It was noted that some groups were concerned with keeping the wage-earning aspect of home economics separate from consumer and homemaking education, unless related to the dual-role concept.

One group suggested that it was necessary to identify pertinent research criteria before identifying needs. Most groups determined that the parameters for the groups' recommendations included the scope of mandates or provisions in the 1968 Vocational Amendments especially under Part F, Consumer and Homemaking Education.

Agreements and Decisions Summary. The agreements and decisions related to the "Tentative List of Priority Problem Areas" developed by the experts using the DELPHI Technique were noted first.

The first problem area was reacted to by at least four of the groups. The original statement of the problem area follows.

1. Comparative studies (in consumer and homemaking education) to determine:

    a. Effective ways of reaching out-of-school groups and poverty groups (methods, course patterns, facilities, etc.).

    b. Difference in trained and untrained workers (evaluation).

One group wanted to know in what ways do we define the people included. This same group was in general agreement that studies are needed in this problem area, but they suggested that consideration be given to a broader scope. Another group restated the problem area as "Methods of working with poverty groups." The three subcategories they suggested were: 1) comparative study of methods, 2) profile study of low income groups, and 3) study of behavioral

changes resulting from methods used. Another group wanted "in-school" added to the statement. The fourth group reacted by changing the wording to read, "Comparative studies in consumer and homemaking education to determine effective ways of reaching out-of-school groups and poverty groups (methods, course patterns, facilities, etc.).

The priority problem listed as number 2 (p. 139) was reacted to by at least three groups as noted in the agreements and decisions section. The original statement of the problem area follows.

> 2. Identification of (consumer education) competencies which should be taught in the elementary school, the junior high, high school.

One group suggested that consideration be given to developing a list of competencies in a hierarchy without identification of school level. Another group suggested that the problem area should be written as, "Identification of (consumer education) competencies which should be taught at appropriate level of competency." Another group suggested the following wording--"Identification of (consumer education) competencies which are appropriate for and of concern to students K thru adulthood."

Number 3 (p. 139) on the Tentative List received only one written reaction from the recorders. The original statement of the problem area follows.

> 3. The development of programs to impact on three major problems of our society: upgrading of household workers (two million of them), the development of day care centers for children (staffing and management), and adult programs in home economics education to assist welfare families in child care and resource management.

It was suggested that the problem area statement be changed by deleting the word "welfare" so that the last part of the statement would read "adult programs in home economics education to assist families in child care and resource management."

The priority problem area listed as number 4 (p. 139) received three written comments from recorders. The original statement of the problem area follows.

> 4. What changes in consumer behavior can be attributed to instruction in educational programs?

One group considered this a high priority item. The question raised by this group was, "In what ways can we measure the impact of instruction?" Another group decided that number 4 would be a

longitudinal study which would present a wide range of uncontrolled variables which would jeopardize its validity. Another group decided number 4 should be given further consideration.

Some of the groups agreed with number 5 (p. 124) as it was stated. The original statement of the problem area follows.

5. Determine tasks in teaching home economics (homemaking--consumer education) which can be performed by aides--persons with less than B.S. degree working under supervising professional teacher; identify competencies needed by aides; identify competencies teachers need to work with aides.

One group suggested the concepts of: 1) teacher competencies as a team teacher, 2) paraprofessional as well as classroom specialist-generalists needed to be involved in the problem area statement. This group also suggested this problem area should include "specific sensitizing methods to promote empathy for needs of those different from themselves." One group thought this item should be omitted because evidence is lacking in establishing a difference in effectiveness of strategies.

Number 6 (p. 139) on the Tentative List had three written reactions. The original statement of the problem area follows.

6. Test effectiveness of various methods of sensitizing home economics teachers to the needs, goals, aspirations, practices, and attitudes of persons different from themselves.

One group wanted it stated as "ways of understanding people different from oneself." Another group agreed with it as it was stated. Another group thought this item should be omitted because evidence is lacking in establishing a difference in effectiveness of strategies.

The remaining six priority problem areas on the Tentative List were ranked second in priority by the experts using the DELPHI Technique. The groups either did not react to these items, or they wished to react to the entire list of priority problem areas, or they wanted to create their own list of priority problems.

Three groups endorsed problem area number 50 (p. 117) from Questionnaire Number 2. The original statement of the problem area follows.

50. Using something like the Flanagan Critical Incident Technique, determine critical areas of decision-making in consumer behavior. What sorts of things cause significant successes and failures in the activities of consumers? In middle socioeconomic homes, in lower socioeconomic homes, in rural and urban ghetto homes?

Two groups endorsed priority problem area number 21 (p. 113). Other priority problem areas being endorsed by at least one group were number 20 (p. 113) if combined with numbers 55, 30, 31, and 40 (pp. 115-117).

At least two groups wrote that a priority problem was evaluation of curriculums already developed (by demonstration, by testing) to see what is effective where. A group suggested a priority problem as, "ways to get coordinated effort and maximum use of resources from other people in the schools as well as community agencies, businesses, etc." One group specified we need research relating to the "most effective in-service education in order to effect change."

One group structured a different approach to use in arriving at priority research problems. This approach outline follows.

Research problems need to follow a sequential development of priorities. The following recommendations may not be mutually exclusive nor are they intended to be limiting.

Recommendations of criteria to develop research model:

1. Develop conceptual structure of consumer and homemaking education.

2. Teacher education and content specialists work together to delineate the content.

3. Establish curricular models for various school systems.

4. Develop assessment instruments.

5. Explore curricular adaptations for various socioeconomic groups.

6. Explore process of increasing change procedure.

Suggestions for implementing the above criteria were:

1. Establish a conceptual structure of research in Consumer and Homemaking Education.

2. Select research components within the structure by various institutions and agencies according to own interests and abilities.

3. Select research areas from any point on the continuum.

4. One central group, such as The Center for Vocational and Technical Education, serve as a disseminating agent for all aspects of the program.

Conflicting Ideas Summary. One central conflict was trying to establish the interrelationship of the concepts of "consumer and homemaking education" and "home economics education." Ideas on what constitutes defensible research on Consumer and Homemaking Education were not shared in common.

SUMMARY OF SELECTED SMALL GROUP MEETINGS

One member from each of the eight groups met at the close of the afternoon session. Their task was to synthesize the group reports into a list of priority research problems on Consumer and Homemaking Education. Their recommendation to the Coordinator at the conclusion of their meeting was to adjust the next day's program to include time for the same groups to meet again and using Questionnaire Number 2 (pp. 111-119), reorganize the priority research problem areas into broad categories, eliminating or adding any research problems in the process.

See Appendix E (pp. 153-158) for the final revision of the group deliberations.

Participants interested in research focusing on a specific category met together and discussed feasible studies. The specific categories were: curriculum development, occupational related, and teacher education. Appendix F has the names of participants and their research interest area.

SELECTION OF RESEARCH PROBLEM AREAS AND PROJECTS

Participants were invited to the conference because of their involvement in Consumer and Homemaking Education activities. They also were invited because of the type of expertise and/or position they have (leadership, administration, and/or research). Within this framework, discussion as to allocation of resources needed for conducting research projects and considerations in the selection of research projects would be most purposeful. Even though it was realized by the conference planners that a firm commitment

of resources for specific research projects could not be made at the conference, most of the considerations necessary in making these decisions would be presented at the conference and indications of interest to the priority research problem areas could be noted.

A panel responded to the topic of "Decision-Making: Considerations in Allocation of Resources and Selection of Research Projects." Summary papers of the three presentations follow.

NATIONAL RESEARCH CONFERENCE ON
CONSUMER AND HOMEMAKING EDUCATION

June 3, 1970

RUTH HOVERMALE

I am representing a state-supported institution, serving a land-grant function for resident instruction and research in home economics with a strong liberal arts orientation. What I have to say works in my institution; the ideas should be applicable to other situations. An administrator needs to consider three key areas in allocating resources for research; they are: 1) personnel, 2) budget, and 3) communication.

PERSONNEL

1. Differential staffing--persons with less than bachelor's degrees; undergraduate students; part-time personnel; state department employees--secondary teachers; examine all personnel to extend the scarce resources we now have.

2. Released time--review responsibilities and see what can be delegated to other individuals--even the administrator. The administrator may need to take on additional responsibilities.

3. Working environment--researchers need a place to work--ideally space needs to be allocated for research; if space is not available the immediate environment can be made to be more conducive to research.

4. Cooperation between institutions provides stimulation for researchers and makes it possible to broaden the base of research.

5. Cooperation within institutions--home economics education and other subject-matter areas within home economics; home economics and other disciplines on campus; researchable problems need the cooperative efforts of all personnel. The problems you have been discussing at this conference are concerns of all home economists not just home economics education.

6. Graduate students--cooperative research between institutions; when are we going to have graduate students stop doing "bits and pieces" of research when a part of the whole would be more meaningful?

7. Research Coordinating Units--need to determine what is appropriate for RCU and local institutions.

BUDGET

1. Such money is available on many campuses to begin research--is money available to home economists as well as faculty from other disciplines?

2. Federal funds are allocated to each state--do you know what is being allocated to your state?

3. Need to have projects "in your hip pocket"--if money is available, project is ready to move. Funds may not become available until the end of FY. Initial grants used for setting up project; implementation comes later. Once funds are allocated to an institution, it may be easier to get additional funds.

4. State Department of Education may be able to provide support for a part-time research assistant and supply funds for summer employment.

5. State appropriation for research may have relatively few "strings attached."

COMMUNICATION

1. Every administrator needs to be a politician--needs to know the way the "wind is blowing"; needs to be aware of the educational structure within your state.

2. Administrator needs to keep abreast of what is being done locally, regionally, nationally; needs to exchange ideas with all concerned.

3. The Association of Administrators of Home Economics (land-grant colleges and state universities) has underwritten the cost of a National Long-Range Projection for Research in Home Economics. The study was made to identify research areas of greatest import, project personnel needed and examine ways of maximizing personnel potential. The printed report of the study will be available this fall. Each member institution will receive copies for distribution.

4. There is a need to bridge the communication gap between the high school teacher and the college instructor. May I urge you to make plans for each faculty member who teaches your majors to visit a public school this fall.

NATIONAL RESEARCH CONFERENCE ON
CONSUMER AND HOMEMAKING EDUCATION

June 3, 1970

HAROLD BINKLEY

We have a Department of Vocational Education, in the College of Education, at the University of Kentucky. The Department includes preservice and in-service teacher education in the service areas of agriculture, business, distribution, home economics, and trade and industrial education. We also have an Instructional Materials Laboratory with nine specialists and the Research Coordinating Unit with five professional staff members.

AREAS FOR DISCUSSION

-- How faculty loads vary for those doing research.

-- How budgets are planned to include graduate assistants.

-- How contracts are provided for state-needed research projects.

-- How travel budgets are included for researchers.

-- How assistance is given in preparing research proposals.

TEACHER EDUCATION

The teaching load of staff members may vary depending on the kind and amount of research to be done. Faculty members in the "Regular Series" may program and devote one-third to one-half of their time to research. Faculty appointed to "Special Title Series--Student Teaching" are not required to do research; however many do.

Faculty load may vary depending on the Service Area due to the State Department's desire for certain amount of effort to be devoted to research. For years we had the understanding that the equivalent of one-half time of a qualified staff member would be devoted to research jointly agreed upon between the State Office (State Supervisor), and the home economics staff at the University.

BUDGETS FOR GRADUATE ASSISTANTS

What budget?

Teacher education	2 or 3 assistants
RCU	4 to 6 assistants
Special research projects	1 or more

CONTRACTS FOR STATE-NEEDED RESEARCH PROJECTS

Two types have good possibilities here.

1. Direct contracts between the State Department of Education and the Department of Home Economics Education in which the Department of Home Economics Education agrees to do a research project of a specified scope, in a set time, at a set cost. Money is transferred to the University account number or the State Department agrees to support the Department of Home Economics Education for an additional given number of dollars.

2. Contract for research with and thru the State RCU. Proposals are drawn up for specific research proposals with budget attached. The proposal is submitted to the State RCU which evaluates the proposal and recommends approval to the State Director of Vocational Education. For the last three years, the Bureau of Vocational Education, State Department of Education has set aside $40,000 against which special research proposals have been submitted.

RESEARCH NEEDED EQUIPMENT

We have been able to secure research equipment for the RCU through joint purchase by the University and the Bureau of Vocational Education. Large research projects have included purchase of certain equipment in budgets.

Vocational personnel have available for their use all of the equipment of the research and statistical laboratory of the College, located in the same building.

TRAVEL BUDGETS

-- Teacher education budgets.

-- Research Coordinating Unit budgets.

-- Budgets for special research projects include the travel (both in and out of state) necessary or desirable for the researchers to attend pertinent research conferences and activities.

ASSISTANCE PROVIDED RESEARCHERS

The staff in the RCU provides assistance to any and all researchers whether teacher education, state staff, individual researchers in the design and management of research proposals and projects whether funded through the RCU or otherwise. This staff provides assistance to any individual or agency in the state desiring to do research related to Vocational Education. Their assistance can and does include assistance from the conception, design, and proposal writing through the writing of the final report and dissemination.

ALLOCATION OF RESOURCES

A State Advisory Committee of the State Research Coordination Unit evaluates proposals for research and development projects and recommends their approval or disapproval to the State Director of Vocational Education.

-- What findings from research can make the greatest difference in the lives of needy individuals? (Use of illustration from agriculture in the difference of corn yield.)

-- Cost-benefit analysis.

Decide who is going to do "what" and not everyone can select her "thing" to do.

Involve people in other areas of Vocational Education.

NATIONAL RESEARCH CONFERENCE ON CONSUMER AND HOMEMAKING EDUCATION

June 3, 1970

CLAYTON OMWIG

AREAS FOR DISCUSSION

1. Some background on Research Coordinating Units (RCU's).
2. How a total State system can go about setting priorities.
3. The assistance an RCU can be to the researcher and consumer.
4. Funding outlook.

RESEARCH COORDINATING UNITS

WHAT IS AN RCU?

a. Research and Development arm of State program.

b. To facilitate desirable changes in vocational education.

c. Predicated on involvement of all.

d. Staff--human resources, educational resources, manpower, training, and information services.

e. Next year--planning, evaluation, exemplary program, information services, training.

LEGISLATIVE MANDATE

a. Vocational Act of 1963--direct funding from Bureau of Research. RCU not mentioned in 1965.

b. Vocational Amendments, 1968--specifically mentioned RCU's. Seventy-five percent through department funds.

STIMULATE RESEARCH

a. With and among agencies and universities, etc.

b. Difficult--not too much interest exists (faculty loads, etc.).

COORDINATE

-- Avoid unnecessary duplication.

-- Formulate long-range and annual research plans. Must consider:

a. Information for decision-makers--people, jobs, training.

b. Program development and improvement.

SETTING PRIORITIES

If adequate funds are available, then we can do many things. If funds are limited, we must look at internal needs of State.

HOW?

a. State Plan priorities.

b. 68 Amendments priorities.

c. Priorities as seen by administrators.

d. Priorities as seen by division heads and institutions of higher education.

e. Priorities as seen by State Research Advisory Council.

f. Priorities as seen by coordinating committees.

g. Priorities as seen by RCU staff.

h. Priorities as seen by Washington (USOE).

USOE has set of five.

1. Reading.

2. Early childhood education.

3. Educational systems and how to best use financial and manpower resources.

4. Basic research (10 percent).

5. Vocational education.

Vocational Education priorities from Washington.

1. Program and administration--considerations to make vocational education more effective.

2. Learning environments.

3. Exemplary instructional systems.

WHAT?

1. Interested in quick payoff.

   a. Some good research not carried to practitioners. See what is good--add additional investment--get it to where the practitioner can use it.

   b. Combine pieces of research. Look at related research--again add additional money, if needed, get to the practitioners.

   c. Look at good programs that exist in the military, business and industry, other state programs, special programs, etc. Pick up what is good and demonstrate the materials or techniques.

2. Programmatic research--where we (RCU) place the priority. Let the Centers (Ohio and North Carolina) do most of the pure or basic, plus some university people.

3. Demonstration and innovative programs. Effect of seeing it in action (in own state). RCU furnish seed money--can pay minimum amounts of "extra costs."

RCU ASSISTANCE

Provide assistance through some funding and microfiche for literature reviews.

PROJECT DEVELOPMENT

Be very selective.

a. Funds are limited.

b. See what will have the greatest impact on the program.

c. See what is of urgency to the State program.

   1. Evaluation.

   2. Follow-up.

   3. Information for planning.

PART II

CONFERENCE OBJECTIVE 3:

To describe research strategies, methodologies, and institutional-state resources to contribute to the solution of critical problem areas.

PART II

PRE-CONFERENCE ACTIVITIES

A visit to The Center for Vocational and Technical Education was arranged by the planners. Specialists in Research and Development and Information were contacted prior to the conference. They were asked to explain a project, or an idea, or a system which they were responsible for implementing. The criteria for selection were: 1) its use in the conference as a part of the design; and 2) the generality of its application for leadership, administrative, and research personnel.

A Research and Development Specialist at The Center for Vocational and Technical Education took one of the research priority problem areas and stated this problem in researchable terms by delineating the variables. He then selected a possible research study, which when completed, might have contributions to make toward the partial solution of the priority problem. Suggested project methodology, statistical design, and possible outcomes were organized by the specialist.

CONFERENCE ACTIVITIES

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION

The facility which houses the administrative staff, research and development staff, and the ERIC Clearinghouse for Vocational and Technical Education was seen by the conference participants. Special attention was given to the library which serves the staff members, the video tape recording studio, and the retrieval system for vocational education information.

Miller presented a paper titled "The Challenge of Being One." This presentation can be found on pages 29-31.

ERIC AS A BIBLIOGRAPHICAL RESOURCE

The *Bibliography of Research on Consumer and Homemaking Education*, which was prepared for the conference participants, used as its source the ERIC system. Explanation of the system was made to the participants and two microfiche from the Bibliography were presented to each participant.

The basic information presented by Magisos is contained in the *Bibliography*, Bibliography Series No. 6, VT 010 860, ERIC Clearinghouse on Vocational and Technical Education, The Center for Vocational and Technical Education, The Ohio State University.

CIPP MODEL FOR EVALUATION

The concepts involved in the CIPP Model are being applied in the management of Center activities and research projects. Some of the concepts were also involved in the planning for and evaluation of the conference. An explanation of the basic concepts and some examples of implementation of the ideas were presented to the group. The paper presented by Walker is on pages 32-38.

SIMULATION PACKAGES IN LEADERSHIP DEVELOPMENT

A research project in the State Leadership Task Force has as an objective the development of simulated materials to aid state leadership personnel in decision-making. The group received information related to the effectiveness of simulated materials and the present availability of simulated leadership material. The paper presented by Ward is on pages 39-49.

MICRO-SUPERVISION

A project, completed at The Center, tested the feasibility of partial training of vocational-technical teachers as supervisors and teacher educators. Learning how to conduct a conference with beginning teachers was achieved by use of a micro-supervision technique. Explanation was given of the technique, the critique forms used for evaluation, and plans for dissemination of the idea. Cotrell and Chase made this presentation and an overview of the report of the study can be found in the *Third Annual National Vocational-Technical Teacher Education Proceedings Micro-Teaching and Video Recording*, Leadership Series No. 25, VT 010 228, The Center for Vocational and Technical Education, The Ohio State University. A more detailed research report is in the process of being published.

DELPHI TECHNIQUE

The tentative list of research priority problem areas in Consumer and Homemaking Education was developed for the conference by use of the DELPHI Technique. Further explanation and an example of using the technique in a dissertation study were given to the group by Gray and is included on pages 50-57.

"THE CHALLENGE OF BEING ONE"

June 3, 1970

A. J. MILLER

My role this afternoon is to try to challenge you to be "one." Now, this challenge might be interpreted in several different ways. For example, if the word "one" were interpreted as indicating pre-eminence, we might talk about the Ohio State football team. Each year Woody Hayes challenges the team to be one--number one. Sometimes they make it, but most of the time they don't.

If the word "one" were used to refer to an individual unit or thing, we might look at organizational examples of Vocational Education some years back. Then, most everyone knew that each traditional service area was a unique and mutually exclusive entity which dealt with problems mostly unique to that service area. Being "one," in that sense of the word, is not my challenge for you today.

The "one" that I wish to define this afternoon is the "one" that denotes a sameness in kind and quality; a oneness that might define a group of vocational education researchers, regardless of their vocational background or occupational experience, who are interested in a common educational research problem affecting a clientele for whom they have a mutual concern.

This concern for "oneness" is only one of a number of the concerns for vocational and technical education expressed by both the 88th and 90th Congress.

In 1963, the 88th Congress gave attention to some of the fundamental problems of vocational education for the first time since 1917. They were motivated by high unemployment among the youth of our country. Another factor motivating Congress' concern was the importance of formal preparation for employment in an increasingly technical and sophisticated economy. The Vocational Education Act of 1963 addressed itself to these challenges.

The authors of the Vocational Education Act of 1963 recognized the need for flexibility in order to meet the demands of changing society and institutions. Therefore, the act included an evaluation system. This evaluation system required the appointment of a National Vocational Education Advisory Council to appraise the results of the act each five years and to recommend administrative and legislative improvements. In 1966, the first National Vocational Education Advisory Council was appointed. Based upon the report of the National Advisory Council, the original Vocational Education Act of 1963 was amended and updated.

The Vocational Education Act of 1963 introduced two new basic purposes in Vocational Education: first, Vocational Education was to serve the occupational needs of all the people in the community through unified programs rather than to train people in separate programs of selected occupational categories. Secondly, a new group was to be served: the persons who could not succeed in a regular vocational education program because of educational, socio-economic, and other obstacles. So far, there is little evidence that either of these major purposes has been accomplished to any significant degree.

If we look at the various recommendations of the National Advisory Council and try to synthesize these recommendations into one broad encompassing guide for Vocational Education, it is clear that this guide must be "the development of a unified system of Vocational Education for the United States." That is, we must strive to achieve a "oneness" of purpose in meeting the training needs of people.

Let us look for a moment at some of the characteristics of a unified system of Vocational Education that should be achieved through "oneness" of purpose.

1. Occupational preparation should begin in the elementary schools with a realistic picture of the world of work. Its fundamental purposes would be to familiarize the student with his world and to provide him with the intellectual tools and rational habits of thought to play a satisfying role in it.

2. In junior high school, economic orientation and occupational preparation should reach a more sophisticated stage with study by all students of the economic and industrial system by which goods and services are produced and distributed. The objectives would be exposure to the full range of occupational choices which would be available at a later point and full knowledge of the relative advantages and requirements of each.

3. Occupational preparation should become more specific in the high school, though preparation should not be limited to a specific occupation. Instruction should not be overly narrow, but be built around families of occupations or industries which promise expanding opportunities. All students outside the college prep curriculum should acquire an entry-level job skill, but they should also be prepared for post-high school vocational and technical education. Care should be taken that pursuit of a vocationally oriented curriculum in high school does not block the upward progress of the competent student who later decides to pursue a college degree.

4. Vocational preparation should be used to make general education concrete and understandable. Curriculum material should be prepared for both general and vocational education to emphasize these relationships.

5. Some formal post-secondary occupational preparation for all should be a goal for the near future. Fourteen years of free public education with a terminal occupational emphasis should be a current goal.

6. After initial preparation for employment, many will want to bolster an upward occupational climb with part-time and/or full-time courses in programs as adults. These should be available as part of the regular public school system.

7. Occupational preparation need not, and should not, be limited to the classroom, the school shop, or to the laboratory. Greater emphasis must be given to on-the-job training and utilization of training situations in business and industry.

8. The school must work with employers to build a bridge between school and work. The school must accept the responsibility of student placement and follow-up.

9. A full range of remedial programs must be provided by the public school system to meet the needs of all students who have problems in succeeding in regular vocational programs.

Part F of the 1968 Amendments addresses one specific area of Vocational Education--that is, problems which relate to the needs of people concerning preparation for the roles of a homemaker, a homemaker-wage earner, and as a consumer, with special attention given to the socially and culturally deprived.

The education and training needs of the wage-earner and the consumer transcend traditional vocational service areas as do the special educational needs of the socially and culturally deprived. The challenge of being "one" is the challenge given to this group to address the problems from the professional vantage point of one group--educational experts--dedicated to the identification of appropriate research problems for systematic solution.

It is indeed heartening to welcome you to The Center this afternoon, a group of national leaders from a variety of vocational service areas and substantive backgrounds. The diversity of your vocational backgrounds, administrative positions, and professional expertise are adding a unique vigor to this research planning conference.

"WHAT'S WRONG (RIGHT) WITH EVALUATION?"

June 3, 1970

JERRY WALKER

Allow me to make some positive points about evaluation by trying to present and then react to some of the negative things which have contributed to evaluation's being as ineffective as we find it in American education today.

First, I will try to point out some of the more conspicuous barriers to effective evaluation, then attempt a definition and last, try to convert some of the initial negative remarks into a more positive vein by suggesting means of circumventing some of the barriers.

What then, are some of these barriers to effective evaluation?

EVALUATION IS THREATENING

It is threatening because, if effective, it necessarily embodies the concept of accountability. Among the various definitions of evaluation and among the various functions it is to perform, one clear premise which emerges is that evaluation is a means for assessing the extent to which any education program, project or activity meets its own specifications (internal validity). To determine if specifications are met, they first must be stated; they are stated in the form of demonstrable objectives. In spite of the lip service to the contrary, we really don't like to set forth, in measurable terms, the outcomes of our intentions and efforts. Yet, good evaluation forces us to and it lets us know if we have not made it.

EVALUATION VERSUS RESEARCH

In particular, the relationship between evaluation and research is consistently misunderstood. They differ, I think, primarily in the extent to which evaluation is targeted to the information needs of specified decision-makers. The activities (i.e., evaluation and research) may be identical, the purposes differ. Excellent research is often very poor evaluation. Good evaluation may be very poor research (in the case of decision-makers who do not have the time to be very choosy about the quality of information they need).

DECISION-MAKERS ARE BETTER REACTORS THAN THEY ARE ACTORS (PLANNERS)

It is the unusual decision-maker who can specify his information needs completely and accurately in advance or who can specify the type, priorities and weights of the criteria which he will employ in making his decision. Most, however, are able to tell the evaluator, post facto, what they did not want and what was missing in terms of the information provided by the evaluator. Thus, the evaluator is forced to pursue a "shotgun" approach where he blasts all the information that he can obtain from any and all sources in the general direction of a decision-maker (if he is fortunate enough to know who the decision-makers are) in the hopes that some of the information will meet some of the requirements and criteria of some of the decision-makers some of the time. It is not very effective or efficient; it is necessary.

IT SERVES MULTI- AND OFTEN CONTRADICTORY PURPOSES

For example, a single evaluation effort may be perceived by:

Role	Purpose
Project Director	Superfluous, platitudinous window dressing to appease funding sources.
Project Functionary	An honest assessment and critique of the relative strengths and weaknesses of the project, the reasons for either, and the recommendations for improvement.
Evaluator	A careful and conscientious reporting of the information required by pertinent decision-makers.
Funding Sources	Answers to the Questions: Is this project making a difference? Is it accomplishing what it set out to do?
Clients (Students/ Parents)	Another extravagant and unimportant waste of tax dollars.

EVALUATION IS EXPENSIVE

It is expensive in terms of time, monetary and personnel resources. People do not fully appreciate the precious commodity which is information. For some reason we tend to think that it

is in abundance, that it is at our finger tips and that to obtain it requires little planning and even fewer resources. Quantitatively, this is probably right; information is in abundance, it is literally at our finger tips and it is inexpensive. But, if the information is to be pertinent, then it becomes very precious and very expensive in direct proportion to the specificity and uniqueness of the decision-makers' needs and criteria.

EVALUATION AS AN EVENT RATHER THAN A PROCESS

Evaluation is often considered as simply an additional step in the life of an educational program or project--usually a last step. This is true for two reasons I think. One is the limited definition of evaluation as the act of making a judgment or selecting among sets of alternatives. To define evaluation as (just) decision-making ignores the process of obtaining the information on which decisions are based. The other reason for ignoring the continuous process which must characterize good evaluation is the traditional (but unnecessary) emphasis placed on "end of project" outcomes. This emphasis is placed because of the traditions of experimental design demanding pretesting and post-testing, because of the nature of school years or semesters which "end" and then start again (as if learning did), because of the fiscal year cycles which also end and renew, and because of the artificial division of labor between project functionaries and evaluators--a division of labor which causes project personnel to say in effect, "We're through now; let's call in the evaluators.

These are but a few of the reasons for ineffective evaluation; many other reasons exist as generalizations and countless reasons could be documented where evaluation has failed in specific instances and circumstances. But even the few reasons cited here should be sufficient to support the growing belief that the theory and practices of educational evaluation are in need of improvement through changes which are at least as widespread and pronounced as evaluation's ineffectiveness. To me, this means that truly radical change is necessary.

Now in the brief space available here, we cannot solve the problems besetting evaluation.[1] We can't even list them. We can, however, try to turn the few negative points that have been made into positive statements--statements which capture the challenge and potential which sound evaluation holds for us as evaluators, educators, administrators, and most importantly, the challenge and potential it holds for increasing the range of opportunities for the children to and for whom we are all responsible.

---

[1]Space, as a matter of fact, is not the reason; it's simply a convenient excuse. The reason, as we'll discuss, is bound up in our ignorance of what the stuff we call evaluation is, ought to and can be.

A DEFINITION

Let's first attempt to define evaluation--a prescriptive or "ought to be" definition rather than the dismal descriptive one we've already outlined. Then, looking at each of the reasons cited for ineffective evaluation, perhaps a few strategies to solve or circumvent these barriers can be suggested.

By paraphrasing Daniel Stufflebeam, evaluation can be defined as the process of obtaining and providing useful information for making educational decisions.[2] This definition is essentially consistent with those offered by Phi Delta Kappa, The UCLA Center for the Study of Evaluation, Robert Stake, and many others. There is little need to parrot the several slightly different definitions of evaluation and there is little reason to quarrel with Stufflebeam's because it includes the three key concepts which I think must characterize evaluation, namely, that (1) useful information is obtained and provided for (2) educational decision-makers through the (3) continuous evaluation process. Keeping this definition in mind, we can return to the barriers to evaluation which were discussed earlier.

Threatening: If the decision-makers within an educational program would consider evaluation primarily as a tool which will serve their ends and not those of an amorphous "they" out there somewhere, it would not be threatening. And the amorphous "theys" (often holders of federal, state and local purse strings) should see evaluation as an integral part of any educational program instead of a means for adding mass and additional spikes to the "big sticks" which often represent their philosophy of motivation. Evaluation ought to provide information for planning decisions (What should be done?); structuring decisions (How to do it?); implementing decisions (Are we doing it?); and recycling decisions (Did we do it?). Most of these decisions are internal to an educational program and if the program is to be successful (a necessary but not sufficient condition for which is continued funding), then the decisions must be sound and they must be rational (i.e., must be made on the basis of timely and pertinent information). Nothing threatening should come from an evaluation system which provides this information. No business or industry could survive without an information system to serve these kinds of decisions, yet educational managers (who deal in products of infinitely more worth than any business) resist such a system.

Evaluation and Research: There is no simple answer to the long and often heated debate between researchers and evaluators but if a basic understanding could be reached and agreed upon, the confusion would lessen; the cooperation would increase. I

[2]Director, Evaluation Center, The Ohio State University.

think the principal lesson that evaluators could learn from research is the need and tools for obtaining quality information (e.g., objective, replicable, valid, reliable, etc.). The educational researcher, on the other hand, should come to the realization that the production of knowledge is a means and that to be concerned with "knowledge for what (or whom) is not a prostitutionalization of self or discipline.[3]

Reactive Decision-Makers: In the first place, this "charge" is not unique to decision-makers. For all of us, our hindsight is a lot clearer than our foresight. But the fact that decision-makers are not exempt from this human frailty is critical to the evaluator who, by definition, must provide information meeting the needs and criteria of the decision-maker. One possible strategy to reduce (not solve) this problem is to send "trial balloons" up before substantial resources are committed to the collection of information. A useful device might be a topic or sentence outline of the final report which the decision-maker will ultimately receive. A list of questions to be answered could be reviewed by the decision-makers. Several meetings between evaluator and decision-makers with successive iterations of the information requirements should be conducted.

Obviously, the evaluator has the responsibility to tactfully but persistently prod the decision-maker to make him aware of the criticality of specifying his information needs as clearly and completely as possible. Another approach, already mentioned briefly, is the "shotgun" approach which following the rule of thumb "When in doubt (about what information you want), ask it." We see this manifest in voluminous questionnaires and other instruments and subsequently in the evaluation reports. The trouble with the shotgun approach is that since resources are always limited, the quality of the information is sacrificed for quantity (e.g., "and now a chapter on the anecdotal comments of the conferees. . . !"). Also, it is nearly axiomatic that the length of a report is inversely proportionate to the probabilities of it ever being read.

EVALUATION FOR MULTI-PURPOSE, AS A PROCESS, AND AS BEING EXPENSIVE

I think that a few summary remarks about evaluation should address themselves to the three additional examples of barriers to effective evaluation: that it is perceived (1) as serving multi- contradictory purposes, (2) as a discrete event, and (3) as being expensive. It would be foolish to defend evaluation from these charges because they are glaringly true. The first

---

[3]RE: Theme of 1970 American Education Research Association Annual Convention: "Knowledge for What?"

two are true because of our confusion about what evaluation is and how it is to be used. And we are confused because of the historic framework from which modern evaluation theory has emerged--a history which has seen evaluation equated with psychometric measurement, with assessment, with judgment of any sort, with descriptions of outcomes, and with (just) decision-making.

As for its expense, one can only counter with the question as to worth of knowing what needs to be done, how to do it, if it is being done and whether it was accomplished. We cannot safely or effectively walk across the street or rocket to the moon without this knowledge; how can we educate the nation's children without it?

EVALUATION DEFINED

0	TARGETED	0	COMMUNICATIVE	0	INQUIRY
1	DEVELOPMENTAL	1	BASIC	1	ASSESSMENT
2	INTELLIGIBLE	2	SYSTEMATIC	2	FEEDBACK
3	OPERATIONAL	3	PROGRAMMATIC	3	RESEARCH
4	LINEAR	4	MULTI-LEVELED	4	VALUING
5	FUNCTIONAL	5	APPLIED	5	MEASUREMENT
6	CREDIBLE	6	STANDARDIZED	6	RECYCLING
7	RATIONAL	7	CUMULATIVE	7	TESTING
8	CONTINUOUS	8	CONGRUENT	8	DECISION-MAKING
9	LOGICAL	9	MONITORED	9	JUDGMENT

Dial-a-definition code: Select any three digit number and then find a definition for evaluation by reading from left to right across the three columns. For example, "546" becomes "functional, multi-leveled recycling."

J. Walker, Evaluator:
The Center for
Vocational and Technical Education

"SIMULATION MATERIALS AND TECHNIQUES: INSTRUCTIONAL TOOLS FOR VOCATIONAL EDUCATION LEADERSHIP PREPARATION"

June 3, 1970

DARRELL L. WARD

Leaders of vocational education today have a tough job! Not to take anything away from our past leaders and their accomplishments, but--they had it good when compared with the complex problems besetting vocational education leadership today. Never has vocational education been called upon to do so much with--comparatively--so little. Today's leaders are called to provide, in fact demanded, to execute leadership for poorly defined, little understood, and highly desired accomplishments. A Herculean effort will be required. The job cannot be done with our present capabilities, resources and postures of action. New methods, increased efficiency, and greater effectiveness will be required.

Many inputs will be required to accomplish the tasks ahead. As in the past, many of these inputs will be conceived, borne and reared by the innovative local leader who "gets the job done down where the rubber hits the road." However, state and national leadership must and is moving to provide assistance, training, and resources commensurate with the job to be done. Legislative action, the funding and implementation of the Educational Professional Development Act's vocational education fellowships, is one example. The programmatic and continuing effort of The Center for Research and Leadership Development in Vocational and Technical Education, The Ohio State University, to produce materials and provide training for Vocational Education leaders is another example of help at hand. Progress being made by other R and D institutions and operating agencies shows bright promise on the horizon. Certainly, the activity at this meeting is indicative of the need, desire, and importance of increased and improved preparation for present and potential vocational education leadership personnel.

Training materials which utilize simulation techniques to prepare people to use new leadership tools and for teaching leadership skills are emerging as one vital and meaningful hope in our arsenal of resources with which the problem may be attacked. The area of simulation training is not new. But, judging by the recent burst of activity in this field and the proliferation of publications lauding its potential and presenting its methods, it has recently been given new life.

Many definitions of simulation exist. They are almost as numerous as are writers on the subject. Seemingly the area is becoming very popular. A definition that I find acceptable has been presented by Weem in an article titled "Simulation as a Method of Instruction in Science Education." His definition states--"simulation is an imitation of real circumstances aimed at providing a learning environment." Weem further states that, "simulation is a technique by which the essential features of some object or process are abstracted and recombined in a model which represents the original and can be manipulated for the purpose of study or instruction."[1] Perhaps the most often quoted definition of simulation is that of Professor Harold Geutzkow of Northwestern University. His definition is that "simulation is an operating representation of central features of reality."[2]

In spite of how you or I or others might define simulation, simulations are useful teaching tools. The quality that distinguishes them from other pedagogical techniques, that gives them their particular power, may not be immediately apparent. Simulations are often the only means available to duplicate processes in a neutral context. This, I think, has tremendous meaning for us in education and in particular vocational education as we move into comprehensive vocational education planning and cost accountability for our programs of occupational preparation. An eclectic definition which I would like to propose is this. Simulation is an operating representation of the central features of a real circumstance aimed at providing the learner with a relatively safe, simplified, and germane learning environment (see Figure 1). Too often the real world about which we must learn is too remote, too complex, or too unsafe to be effectively utilized as a teaching and learning situation. If the real world does not exhibit these characteristics to a prohibitive degree, it is often the best place to learn, i.e., our successful on-farm projects in vocational agriculture, cooperative work experience in distributive education, and the on-the-job training of many vocational education programs and complimentary educational endeavors.

However, when the characteristics, remote, dangerous, and/or complex, are present, simulations can draw from the real world the central features of an actual circumstance, place them in an operating representation or model and thus provide the learner a relatively safe, simplified, and relevant learning environment. Please note--a simulation is nothing without the learner.

---

[1]Richard D. Weem, "Simulation as a Method of Instruction," *Science Education*.

[2]H. Geutzkow, ed., *Simulation in International Relations: Developments for Research and Teaching*, Englewood Cliffs, New Jersey: Prentice Hall, 1963, p. 25.

SIMULATION DEFINED: An operating representation of the central features of a real circumstance aimed at providing the learner a relatively safe, simplified, and germane learning environment.

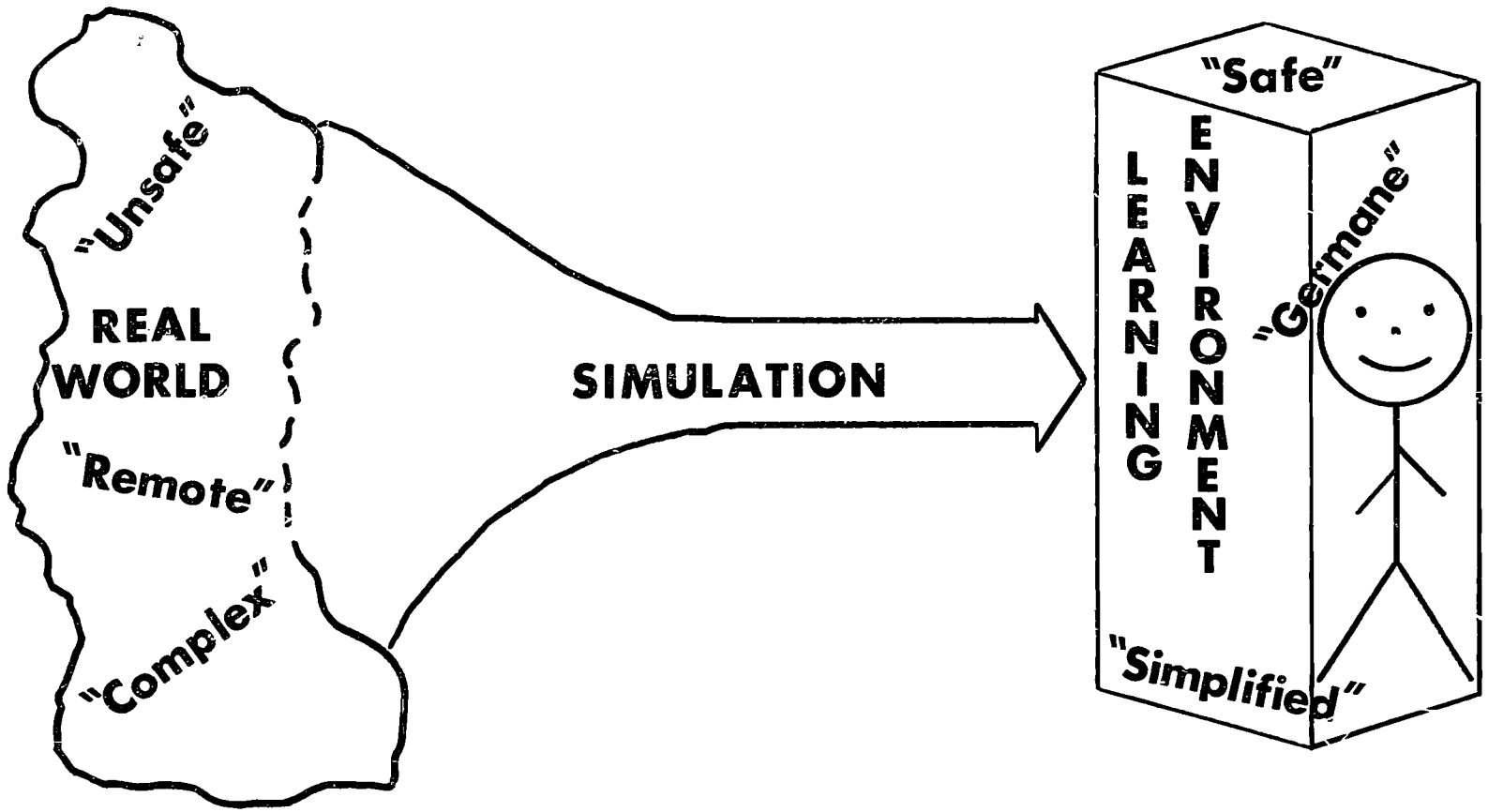


FIGURE 1. EDUCATIONAL SIMULATION DEFINED

Simulation merely provides a learning environment. Placing the learner in the environment along with a high degree of involvement in an action program is the job of both the teacher and the learner himself.

To further illustrate what seem to be valid reasons for using simulations in preference to some other teaching method, I would like to provide some examples of where simulations have been used or have particularly great potential. Actual war is too dangerous, and too late to put the learner into it for basic and combat training. Thus the military has long used war games to prepare soldiers for military battle. The link trainer of early military pilot training, and now our very complex pilot and stewardess training simulations as typified by United Airlines' tremendous training station at Denver, Colorado are other examples. There seems to be no end to the complexity of the simulations which are now being used to prepare personnel in the aviation field. Those of you who have seen the movie, Airport, will recognize it, as are most movies, as one big simulation. The medical field also makes extensive use of simulated conditions in training doctors, nurses and paraprofessional personnel.

Concepts too remote to the learner can also be taught using simulations. Our elementary teachers have, for years, used variations of simple simulations to acquaint learners with life in other countries. The problems faced by the ghetto child or adult are often too remote, too unfamiliar, too repulsive, to our white, middle class backgrounds for us to fully understand and take effective action to assist correction of the problem. Extensive work is now being done to prepare simulation materials for use in training teachers, counselors, and administrators to work more effectively with the ghetto individual. Some of the most laudible work is being done by the University Council for Educational Administration located at The Ohio State University where they are preparing a number of simulation "packages" in this area.[3]

---

[3] A package implies a mix of materials which may include: 1) introductory materials to simulation itself; 2) introductory materials to the simulation exercise, instructional objectives and modified behaviors of the training package; 3) background data to acquaint the student with the actual situation he is dealing with including written text, films, slides, tapes, and records; 4) student exercises to be dealt with by the learner; 5) an instructor's guide for using the materials; and 6) student working papers for use in completing the exercises. Note: This general composition of a simulation package also holds true, in most instances, for the simulation packages developed and under development by The Center for Vocational and Technical Education, The Ohio State University.

Some processes are so complex that their underlying structure can be grasped only when trivial details and irrelevant disturbances are eliminated from their study. The complexity of many concepts and skills necessary to be learned defy study and understanding in their natural setting. A prime example, and of crucial import in today's vocational education picture, is the state and local planning process of vocational education. Planning skills, techniques, and concepts are, to say the least, difficult to understand till seen in a working or actual situation and till observed and manipulated throughout an entire planning cycle. The Center is deeply involved at the present time in developing simulation materials to be used in preparing individuals to participate in the planning process.[4]

The necessity to learn planning in the context of a complete planning cycle brings us to another critical and extremely important feature of simulations. A primary reason for developing simulation is that simulations give us the possibility to compress time--so that perhaps a one hour long decision-making cycle would present one month, one year, or perhaps a number of years in the real world. The simulation game or exercise allows participants to experiment with different strategies and it forces them to live with the consequences of their decisions, not in two months or in two years but almost immediately.

Thus, processes dangerous, remote, or complex can be learned through simulation. In addition, the learnings that take place from simulations often differ qualitatively from the output of other teaching methods. These differences arise out of the structure of simulation and the atmosphere generated among those who participate in simulation exercises.

There are some general characteristics of simulations, particularly those used in education which should probably be noted. Ones which seem important to mention include:

1. By their nature simulations promote a high degree of involvement, not only of the learner, but of the instructional staff.

2. The consequences of one's decisions can be immediately observed.

---

[4]Center simulation publications which focus on the planning process are *Supervision and Decision-Making Skills in Vocational Education* and *Simulation Training in Planning Vocational Education Programs and Facilities* listed as bibliographical entries 6 and 7. An additional package is currently being pilot tested and other simulation packages are planned.

3. The consequences of decisions arise within one's self, generally by one's self and must be immediately dealt with.

4. Simulations alter behavior rather than verbal intentions since action with the simulation is based upon behavior rather than verbal intentions.

5. Simulations are self-judging, avoiding reactions to authority by the participant. They are generally open-ended with no right decision which must be arrived at.

When simulation exercises are constructed in an open-ended fashion, that is, when there is no absolutely correct answer to any one exercise, they become especially well suited for use as discussion promoting devices. They are exceptionally adaptable to the workshop situation and promote the type of discussion where an individual can truly learn from his peers.

Simulation materials are found in a variety of forms and degrees of complexity, from the relatively simple in-basket and role playing approaches to highly complex gaming and computerized packages. Elaborate gaming and simulation techniques have been developed for use in industry and the private sector. Public education has been slow in moving into the area of simulation. However, it does seem that at present a tremendous amount of steam is being generated in this regard and educators are moving rapidly to provide materials which utilize simulation techniques for teacher education and administrator development.

To conclude this general discussion of what simulation is, I would like to emphasize that the simulation techniques or methods are nothing more than another teaching tool. The materials will be no better than the instructor that uses them--and I would caution that some preparation for effectively using simulation materials should be obtained by the instructor. A second caution should be assumed without my mentioning it. Any simulation material, whether it is developed by The Center for Vocational and Technical Education, The University Council for Educational Administration, or any other individual or organization, will have to be adapted to the situation in which the trainer finds himself involved.

It seems appropriate to discuss briefly a few of the simulation materials that are available. There are many commercial productions of simulation games and simulation materials which I will not mention, but I will indicate at least two primary sources in the area of education. The University Council for Educational Administration, whose headquarters are on The Ohio State University campus, has developed extensive materials in educational administration which use simulation techniques. UCEA generally

follows a pattern of contracting with member teacher educators and teacher education institutions throughout the country to develop these materials. They currently have materials which simulate the roles of principal, superintendent, assistant superintendent, finance officer, community college president, curriculum director, guidance director, and others in secondary and post-secondary education. There is also a set of materials, connected with UCEA, but handled through the University of Nebraska, School of Education, which is specifically designed to acquaint the secondary school principal with some of the problems and the potentials of vocational education. The other source which I will discuss is, of course, our own work at The Center for Research and Leadership Development in Vocational and Technical Education at The Ohio State University.

The Center began its work in the development of simulation materials approximately two years ago as a result of earlier research and development efforts. Products were developed which seemingly had great applicability for improvement of various processes in the states, but were not generally used for a variety of reasons. One, of course, was communication-dissemination patterns. Another was that state and local vocational education leadership did not know how to effectively utilize the tools that were developed. Promising research findings and development efforts were and are not being implemented due to difficulties encountered in their use and in preparing individuals to use the newly developed tools and innovations. The purpose of The Center's work in simulation training has been to develop, test, and disseminate including "training for use" vocational education leadership training materials which utilize simulation techniques and which facilitate the preparation of leadership personnel to use the results of research and development findings.

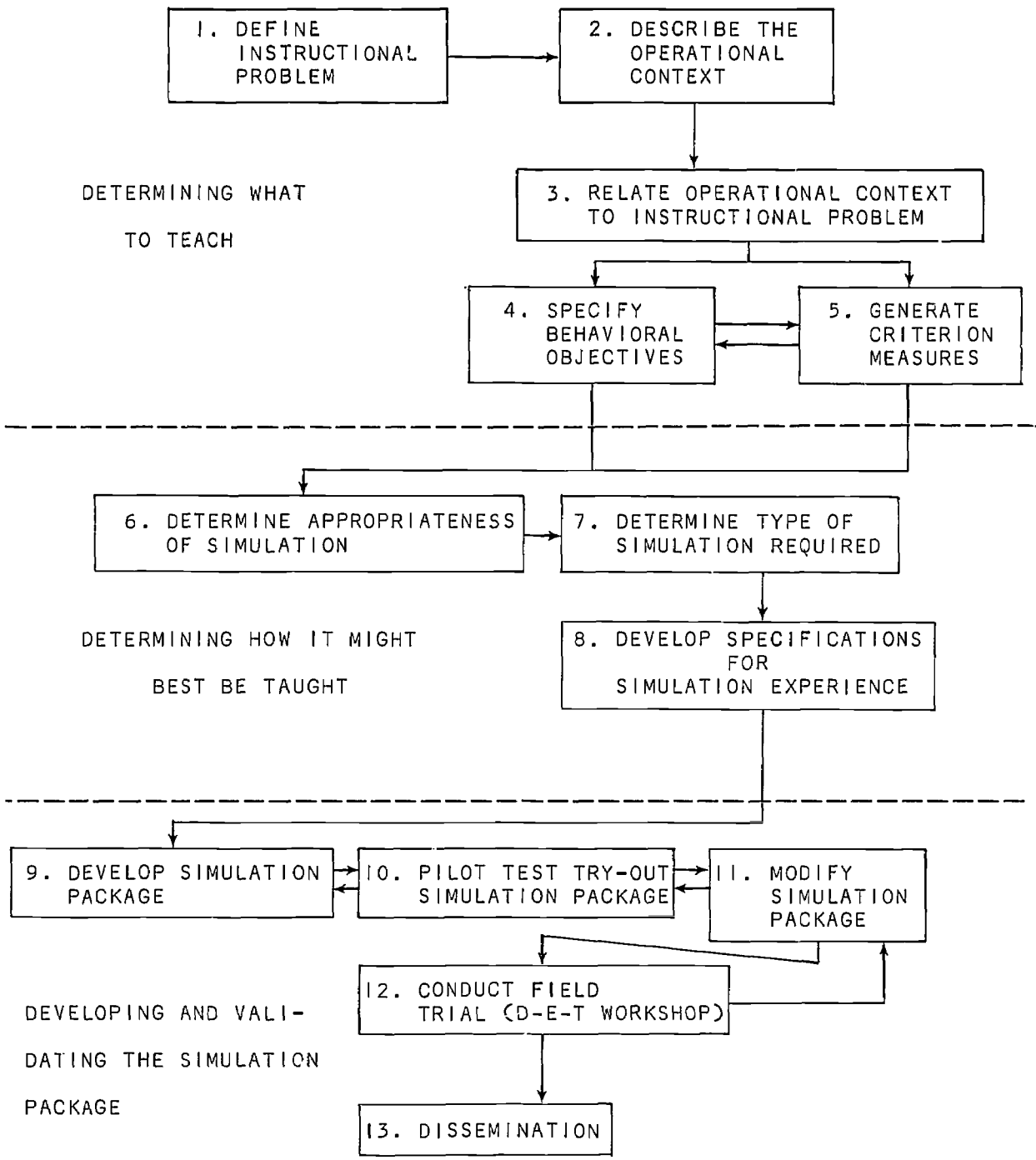
The development, testing, evaluation, modification and implementation of simulation materials at The Center is a straightforward yet complex process. As perhaps a typical procedure followed in developing simulation materials, The Center's process is worthy of description. Figure 2 outlines this process. The figure is an adaptation of the steps in the design of an instructional simulation system as illustrated in Twelker's article, "Designing Simulation Materials."[5] Our process closely parallels the procedure used by Twelker in the Teaching Research Division, Oregon State System of Higher Education.

The first three steps involve defining the instructional problem, describing the operational situation and relating that

---

[5]Paul A. Twelker, "Designing Simulation Systems," *Educational Technology*, October 1969, pp. 64-70.

FIGURE 2
STEPS IN THE DESIGN OF AN INSTRUCTIONAL SIMULATION SYSTEM



situation to the instructional problem. Those steps are for the most part not unlike other recommended procedures of developing institutional materials. Steps four and five involve the specification of behavioral objectives and determination of criterion by which to measure if the objectives are met. Steps 4 and 5 are crucial and often neglected in development work, especially step 5. Behavioral objectives have at least, become a standard to which we give lip service. Not so with criterion measures. All too often we specify objectives to be reached without any consideration for how we will measure their attainment or even check our progress toward their attainment. Writers of our simulation materials must develop criteria which they will accept as valid measurements of objective attainment.

Steps 6, 7, and 8 move from general instructional material development to simulation development. All instructional problems certainly are not best solved through simulation techniques. Only those problems with basis in the real world and for which models or representations can be developed, can be simulated. The type of simulation required must be determined and the experiences to be simulated identified and described.

Steps 9-11 follow a logical sequence of development, testing, modification and dissemination. The package is developed and tried out in a controlled pilot test. After evaluation and improvement more extensive field trials, generally taking the form of a demonstration-evaluation-training for use workshop, takes place.[6] After further modification, if needed, our materials are disseminated and made available to the field.

The Center has completed two projects which have resulted in simulation training packages for use with the vocational education leadership personnel. These materials are adaptable to both in-service and preservice activities and will be made available to individuals and institutions in the states who can utilize them in their personnel development programs.

The two packages of materials currently available are: *Research 51, Supervision and Decision-Making Skills in Vocational Education: A Training Program Utilizing Simulation Techniques;*

---

[6] Demonstration-Evaluation-Training for Use Workshops are arranged for by The Center's Dissemination Specialist. The periodic meetings are designed to demonstrate the use of Center products to potential user groups. Simulation materials particularly rely upon the training for use component of the workshops. It is felt that due to difficulties sometimes encountered in their use, individuals wishing to use simulation materials should be prepared to effectively use them.

and *Research 52, Simulation Training in Planning Vocational Education on Programs and Facilities*. These have previously been noted and a bibliographical reference provided. Research 51 emphasizes the personal and technical skills involved in supervision and Research 52 focuses upon skills needed by leadership personnel in the planning of vocational education programs with the emphasis upon facility planning.

A third simulation package is currently being pilot tested and should be completed and available for use by late fall of this year. It will focus upon the state planning function in vocational education. The current materials have been designed primarily for state leadership personnel of vocational education. However, the materials for the most part are usable in their current form for secondary and post-secondary vocational education administrator training and with normal adaptive processes should be quite readily usable with a large number of population groups. The Center anticipates the funding and initiation this fall of a project which will develop at least two additional packages of simulation materials.

In reference to publications R-51 and R-52, the materials in their present booklet form are not usable as classroom documents. Teacher educators or personnel development specialists who will be conducting in-service or preservice training using these materials will find it necessary to reproduce portions of the publications in classroom quantities. These would include the student exercises, data bank, and the working papers. Permission to reproduce is of course not needed since the material is under public domain.

In conclusion, simulation is a proven instructional method and tool which exhibits great promise for vocational education applications. Utilization of the materials presently available and under development can provide a valuable assist in the development of vocational education leadership. The Center invites your use, critique, evaluation, and feedback regarding our materials.

A SELECTED AND LIMITED BIBLIOGRAPHY OF REFERENCE MATERIALS ON SIMULATION

1. Boocock, Sarane S., and Schild, E. O., eds. *Simulation Games in Learning*. Beverly Hills, California: Sage Pub., Inc., 1968.

2. Cherryholmes, C. H. "Some Current Research on Effectiveness of Educational Simulation: Implications for Alternative Strategies." *American Behavioral Scientist*. 10 (2), 1966, p. 4.

3. Crawford, Jack, and Twelker, Paul A. "The Design of Instructional Simulation Systems." In Paul A. Twelker, ed., *Instructional Simulation: A Research Development and Dissemination Activity*. Monmouth, Oregon: Teaching Research Division, Oregon State System of Higher Education, February 1969. (U.S. Office of Education Final Report, Project No. 7-1-045.)

4. Cruickshank, D. R. "Simulation: New Direction in Teacher Preparation." *Phi Delta Kappan*. 1966, 23-24.

5. Guetzkow, H., ed. *Simulation in Social Science: Readings*. Englewood Cliffs, N. J.: Prentice Hall, 1962.

6. Meckley, Richard F.; Valentine, Ivan E.; and McCoy, Zane. "Simulation Training in Planning Vocational Education Program and Facilities." The Center for Vocational and Technical Education, The Ohio State University, 1970.

7. Rice, Dick C., and Meckley, Richard F. "Supervision and Decision-Making Skills in Vocational Education: A Training Program Utilizing Simulation Techniques." The Center for Vocational and Technical Education, The Ohio State University, 1970.

8. School of Education. "Madison Public Schools-Administration of Vocational Education." University of Nebraska. Lincoln, Nebraska, 1969.

9. Swan, Howard A., and Johnson, Jim. "Simulation Exercises." *Creative Educational Materials*. DeKalb, Illinois, 1968.

10. University Council for Educational Administration. "Madison Simulation Materials; Elementary and Secondary Principalship, Superintendency, Community College Presidency and other roles." The Ohio State University, Columbus, Ohio, 1969.

11. Ward, Darrell L., and Scott, W. Wayne. "Simulation Training in State Vocational Education Planning." The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio. Research in progress.

"THE DELPHI TECHNIQUE: A TOOL FOR INQUIRY"

June 3, 1970

KENNEY E. GRAY

The DELPHI Technique is a means of securing expert convergent opinion without bringing the experts together in face-to-face confrontation. This convergent opinion of experts is usually gained through the use of successive questionnaires and feedback with each round of questions being designed to produce more carefully considered group opinions. The DELPHI Technique in its simplest form:

> . . .eliminates committee activity among the experts altogether and replaces it with a carefully designed program of individual interrogations (usually best conducted by a questionnaire) interspersed with information input and opinion feedback.[1]

Helmer and his colleagues at the Rand Corporation developed the DELPHI Technique in the early 1950's to obtain group opinions about urgent defense problems. The technique has also been used for predicting long-range developments in a scientific-technological area including defense, automation, and space research. It is used in identifying both majority and minority opinions as a basis for formulating goals and setting priorities.[2] An understanding of the DELPHI Technique can be enhanced by reviewing an example of the use of the technique. Helmer cited the following example in an effort to describe the procedure:

> When inquiring into the future of automation, each member of a panel of experts in this field was asked to estimate the year when a machine would become available that would comprehend standard IQ tests and score above 150 (where "comprehend" was interpreted behavioristically as the ability to respond to printed questions possibly accompanied by diagrams). The initial responses consisted of a set of estimates spread over a sizeable time-interval,

---

[1]Olaf Helmer, "The DELPHI Technique and Educational Innovations," *Inventing Education for the Future*, by Werner Z. Hirsch and colleagues. San Francisco: Chandler Publishing Company, 1967, p. 76.

[2]John Pfeiffer, *New Look at Education: Systems Analysis in Our Schools and Colleges*, New York City: The Odyssey Press, 1968, pp. 152-153.

from 1975 to 2100. A follow-up questionnaire fed back to the respondents a summary of the distribution of these responses by stating the median and--as an indication of the spread of opinions--the interquartile range. . .The respondent was then asked to reconsider his previous answer and revise it if he desired. If his new response lay outside the interquartile range, he was asked to state his reason for thinking that the answer should be that much lower, or that much higher, than the majority judgment of the group.

In the next round, responses (now spread over a smaller interval) were again summarized, and the respondents were given a concise summary of reasons presented in support of extreme positions. They were then asked to revise their second-round responses, taking the proffered reasons into consideration and giving them whatever weight they thought was justified. A respondent whose answer still remained outside the interquartile range was required to state why he was unpersuaded by the opposing argument. In a fourth, and final round these criticisms of the reasons previously offered were resubmitted to the respondents, and they were given a last chance to revise their estimates. The median of these final responses could then be taken as representing the nearest thing to group consensus. In the case of the high-IQ machine, this median turned out to be the year 1990, with a final interquartile range from 1985 to 2000.[3]

APPLICATION OF THE DELPHI TECHNIQUE

The DELPHI Technique was first used in the early 1950's as a forecasting technique for predicting future events. More recently, it has been accepted as a planning process in both the hard and soft sciences. A brief review of some uses of the DELPHI Technique follows.

Helmer, a principal proponent of the DELPHI Technique, has used the procedure to conduct an extensive world-of-tomorrow survey to predict long-range developments in science, automation,

---

[3]Olaf Helmer, "Analysis of the Future: The DELPHI Method," paper prepared for *Revista Italiana di Administrazione Industriale*, Santa Monica, California: The Rand Corporation, 1967, pp. 7-8.

space research, and other areas. The focus of this research was to identify major inventions and scientific breakthroughs in the next 50 years. However, it will not be known for two or three generations whether the "experts' predictions about scientific breakthroughs jibe with actual developments."[4] Although there was no way of validating the forecasts short of waiting to see what really happened, the results were considered to be of interest to those who were concerned about future developments in each of the fields.

The Institute of Government and Public Affairs at the University of California in Los Angeles used the DELPHI Technique in an effort to identify changes in American education. Adelson, Alkin, Carey, and Helmer described the work as follows:

> Whatever the validity of the formal results, the behavioral results of the procedure are very instructive. The principal one is that the participants in the exercise found it very difficult, in some cases painful, to make the required choices, to forego "desirables" for "more desirables." It should be remarked that these were all people with a vital and informed relation to the field. They were people familiar enough with the decision process in one setting or another that one might have thought them to be adept at and comfortable with the need to decide. And perhaps they were. But they were operating on a new scale, and since they took the exercise seriously, and felt a degree of responsibility for the quality of the intended result, there was much soul searching and argument. There was also ready capitulation by some of the participants who appeared to feel either that their opinions were not worth much, or else that the information available did not justify very deep involvement. Unless they had strong objectives or objection, these people let the others decide for them. Nevertheless, the authors got the impression that the procedure was looked on by almost all the participants as potentially very useful in educational planning at all levels.*[5]

---

[4]Pfeiffer, *op. cit.*, pp. 153-154.

*Emphasis added.

[5]Marvin Adelson, "Planning Education for the Future: Comments on a Pilot Study, *American Behavioral Scientist*, Vol. 10, No. 7, March 1967, p. 27.

An application of the DELPHI Technique worthy of note is that conducted by Helmer where weighted opinions for the different experts participating in a study were considered. The variation in relative trustworthiness of different experts and the lack of an objective measurement of the same encouraged an experiment to test the degree of reliance that may be placed on the experts' self-appraisal of their relative competence.

In his discussion Helmer said this experiment:

> . . .was used in November, 1965, when 20 members of the faculty of the Graduate School of Business Administration at the University of California (Los Angeles) made forecasts of 10 economic and business indices for the last quarter of 1965 and for the entire year 1966 (20 answers altogether). The procedure was as follows: In addition to going through four rounds of DELPHI arguments, the respondents were asked to rank their relative competence with regard to the estimation to each of the 10 indices. Then, instead of using for each index the median of all 20 final responses as the group consensus, and thus as the group's prediction for 1966, we took only the responses of those individuals who had ranked themselves relatively most highly competent for that particular index, and then used the median of just these forecasts as the group consensus. It subsequently turned out that this select median, compared to the median of all responses, was closer to the true value in 13-1/2 out of the 20 cases.[6]

EDUCATION AND THE DELPHI TECHNIQUE

One of the larger studies in education utilizing the DELPHI Technique was conducted by Cyphert and Gant to clarify the opinions of clientele concerning goals for the University of Virginia's Curry Memorial School of Education. The survey involved 421 respondents from seven categories including: 1) faculty and student leaders in the College of Education; 2) university administrative leadership; 3) leadership in educational associations; 4) officers of supporting organizations including PTA, School Boards Association, and State Boards of Education; 5) members of Education Committees of the Virginia Legislature and United States Congress;

---

[6]Olaf Helmer, "Analysis of the Future: The DELPHI Method," *op. cit.*, pp. 7-8.

6) other leaders including newspaper editors, labor union officials, farm and chamber of commerce officials, and leaders of the N.A.A.C.P.; and 7) selected teacher educators of national reputation from across the nation.

The study consisted of four questionnaires beginning with initial inputs from the respondents followed by individual and group feedback with each of the succeeding questionnaires. Cyphert and Gant cited several generalizations concerning the DELPHI Technique in action. The following were relevant to this study: 1) Prospective participants in a study must be made to feel that their responses are valid so that they will take part; 2) Participants in the study expressed considerable interest in the DELPHI Technique and requested information on the technique as well as the outcomes of the study; 3) "The differences in agreement within a group were greater than the differences in agreement between the groups"; 4) There is considerable administrative work and problems associated with the technique including individual records for each respondent to determine changes and prior ratings, synthesizing free responses into communicable generalizations, preparation and mailing of several generations of questionnaires, and the tabulation of data; 5) "The hypothesis that the technique can be used to mold opinion as well as to collect it was supported" through the use of bogus items in the questionnaire; 6) "Written comments by the respondents were often returned with the questionnaire"; and 7) "It is apparent that virtually all (99 percent) of the respondents' change in opinion from their initial rating of the items occurred on Questionnaire III which informed them of the initial 'consensus' reached by the total group."[7]

Other studies presently under way which utilize the DELPHI Technique are a study to identify guidelines for developing a community college teacher preparation program by Daniel B. Dunham of Oregon State University, and a study to identify competencies needed by principals of intercity schools conducted by Eugene Emmons of The Ohio State University.

PLANNING COMPETENCY STUDY

A dissertation study conducted by Kenney E. Gray at The Ohio State University has utilized the DELPHI Technique as the methodology for collecting the data. The study titled "Competencies Needed by Personnel Engaged in Program Planning in State Divisions of Vocational-Technical Education" has as its central purpose the

---

[7]Frederick R. Cyphert and Walter L. Gant, "The DELPHI Technique: A Tool for Collecting Opinions in Teacher Education," pp. 6-15 (Xeroxed).

identification of competencies needed by personnel engaged in program planning in state divisions of vocational-technical education. The conceptual base for the study was the "systems approach" to program planning developed by Arnold. The DELPHI Technique was used to identify and rate the importance of competencies needed in the planning process.

DATA COLLECTION STRATEGY

A variation of the DELPHI Technique proposed by Pfeiffer was applied to the framework for planning designed by Arnold.[8] This application provided the mechanism for identifying the competencies required in state level program planning. A description of the application of the Pfeiffer variation of the DELPHI Technique to the Arnold planning model follows.

A panel of 20 practitioners included seven chiefs of planning in state divisions of vocational education, seven state directors or assistant commissioners for vocational education, and six educational planners outside the state division of vocational education. The panel was asked to identify competencies needed by state-level personnel charged with designating the planning steps of the Arnold planning model. Three successive mailed questionnaires were used to provide individual consideration and input followed by individual and group feedback of responses.

The first questionnaire provided respondents with a description and paradigm of the Arnold framework for planning. Each respondent was requested to list the competencies required in program planning to accomplish each program planning level--socio-economic planning as related to vocational education: vocational education program planning, and vocational education resources planning--as described in the paradigm in Figure 2. This procedure was field-tested with a group of vocational educators at The Center for Vocational and Technical Education prior to its use.

The response to Questionnaire I, which included over 600 individual competency statements, made it necessary to develop a single composite list of the competencies. This was accomplished by typing each competency statement suggested by the respondents on color-coded index cards, sorting cards into steps within each planning level, and grouping like statements within a step (cell) into a single statement to avoid duplication.

Questionnaire II consisted of a composite list of the competencies grouped by steps into each planning level of the paradigm.

---

[8] Pfeiffer, *op. cit.*, pp. 152-153.

Each respondent was asked to rate the importance of each competency to a state level program planner charged with performing the specific step of the planning process in which the competency was listed. The ratings were recorded on a four-point scale as follows:

4	3	2	1
Essential	Important	Useful	Unimportant

In addition, the respondents were asked to list any additional competencies which they felt should be included.

Questionnaire III consisted of the composite list of competencies rated in Questionnaire II, a summary of the group's ratings of the importance of each competency, an indication of the majority opinion--if any, and a notation of the respondents' rating of each competency in Questionnaire II. Majority opinion was defined as the single integral of the ratings scale with 50 percent (10 of 20 ratings) or more of the ratings OR the two adjacent intervals on the rating scale with 75 percent (15 of 20 ratings) or more of the ratings. If both definitions were met in the rating of a single competency, the integral with 50 percent or more of the ratings was selected as the majority opinion. Majority opinion was indicated by the parentheses around a single integral or two adjacent integrals in the summary rating. Questionnaires were customized for the individual respondent with the red dot above the interval indicating his previous rating of each competency.

In Questionnaire III respondents were asked to reconsider each rating with respect to revising it after considering the responses of other experts. If the revised rating was outside the majority opinion, each was asked to specify his reasons for remaining outside the majority opinion. In addition, the respondents were asked to give an initial rating of the six new competencies suggested in Questionnaire II.

The analysis of the data in Questionnaire III consisted of: 1) a frequency count to determine the competency statements which achieved the majority opinion in a single integral or two adjacent integrals of the rating scale, 2) computing a group mean rating for each competency statement, and 3) calculating the percentage of respondents constituting the majority opinion rating for each competency. This series of questionnaires yielded a total of 147 competency statements which the DELPHI panel described as being needed for the state level planner within state divisions of vocational and technical education.

ALTERNATIVE METHODOLOGIES

Several alternative methodologies were considered for this investigation other than the one selected--the DELPHI Technique. Some of the alternative approaches included case study, job analysis, jury, and review of the literature. The DELPHI Technique was selected over these alternatives because of the need to: 1) gain the expertise of several educational and manpower planning agencies in a relatively short time; 2) be attuned to the most recent legislative requirements for planning, and to current and emerging socioeconomic needs to be served; 3) secure the benefit of individual and group judgments; and 4) be concerned with the specific operational context of state divisions of vocational education. In addition, the power of the DELPHI method:

> . . .seems to lie in the fact that it creates some of the most important elements of an ideal debate. It provides an impersonal anonymous setting where opinions can be expressed in clear terms and considered before the voicing of criticisms and counter-opinions, a setting in which ideas can be modified on the basis of reason rather than prestige and/or a desire to climb on the bandwagon.[9]

SUMMARY

The foregoing discussion provides an indication of some of the many ways that the DELPHI Technique may be adapted to various uses. The resourcefulness of the DELPHI Technique varies considerably among the various situations and settings, but as the studies discussed indicate, it can be an important tool in bringing about improvements in public education.

---

[9]John Pfeiffer, *New Look at Education: Systems Analysis in Our Schools and Colleges*, New York City: The Odyssey Press, 1968, pp. 152-153.

MOVING FROM RESEARCH PROBLEMS TO POSSIBLE PROJECTS

Pratzner presented a paper "Developing a Researchable Problem" to the participants. This paper can be found in pages 59-68. Arnold illustrated the concepts presented by Pratzner by explaining the differentiated staffing project being conducted by Center staff. The explanation of this project is on pages 69-78. General discussion, led by Swope, followed the presentation of these papers.

"DEVELOPING A RESEARCH PROBLEM"

June 3, 1970

FRANK C. PRATZNER

INTRODUCTION

THE NATURE OF RESEARCH

Research is the process of systematically searching for answers to specific and pressing problems. In general, it is also a process by which facts and propositions related to the nature of reality are discovered and then tested for their truth or falsity. The process of research is often compared to the "scientific method" or to the "problem-solving method" of thinking as these have been variously described. In general, the steps in the research process would probably include at least the following steps: (8,1)

1. Identifying a felt need or a problem area
2. Gathering available and related information
3. Defining the specific workable problem
4. Deducing appropriate objectives, questions or hypotheses from the problem
5. Collecting new evidence to answer the questions or test the hypotheses
6. Arriving at concluding beliefs regarding each question or hypothesis, and speculating on their general value.

Each of the speciality areas in vocational, technical, practical arts education provides an almost unlimited supply of pressing and important problems. School administrators, teachers and counselors, at all levels, have no difficulty enumerating many significant problems and needs related to their particular daily responsibilities. Very often the most difficult task in planning to do something about a felt need or a particular problem is to distinguish between a broad problem area on the one hand, and a workable or researchable problem on the other. It is to this very difficult task that my comments and illustrations are addressed.

BROAD PROBLEM AREAS

A problem area is a very broad problem felt to be significant by the researcher and practitioner. Ordinarily the problem area represents the identification of a general problem which is broad in scope and, therefore, too complex or ill-defined to study or do something about. The statement of a problem area frequently

suggests many different and varied activities to different people and all approaches to the problem area may be equally feasible. The variety of implications, variables, and alternative ways of looking at the problem, usually indicate that a problem area must be restricted to a much smaller, more clearly defined unit before a possible approach to obtaining any sort of solution through a specific study or set of activities becomes clear.

WORKABLE PROBLEMS

Thus, a "workable" problem is identified when the problem area has been sufficiently limited to be practical, and when it can be stated with sufficient precision to permit its solution by gathering relevant evidence or by following predetermined activities. Someone reading a "workable," operationally defined problem should be able to determine: a) what you plan to investigate in a study, and b) infer the basic methodology you plan to use in investigating the problem.

OBJECTIVE OF PRESENTATION

It is the purpose of this presentation to attempt to identify and describe some of the things one might do or the procedures one might follow to obtain a "workable" problem. In other words, how does one get from a broad problem area to a workable problem description?

I have attempted to group my suggestions for deriving workable problems around several major points. I think the suggestions and points I intend to make are generally applicable to problem areas and not restricted to any one type or particular kind of problem area.

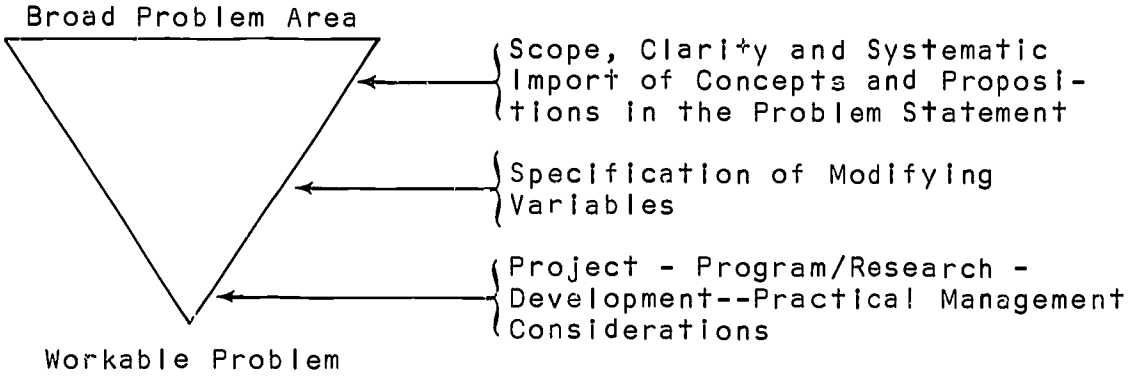
The first important set of things we will consider in deriving workable problems concerns the language of the broad problem area statement. That is, the scope, clarity and systematic import of the concepts, definitions and propositions included in a problem statement can provide clues for the problem's restriction and clarification.

This discussion will lead to a consideration and description of the notion of modifying variables and to how the identification of relevant variables can often affect the workability of a problem.

Some brief attention will be given to several approaches to the management of activities. Programmatic (development) approaches will be compared to project (research) approaches, and finally, some of the practical considerations of conducting R & D activities will be discussed as they affect problem clarification.

FIGURE 1

CONSIDERATIONS FOR THE DERIVATION OF WORKABLE PROBLEMS



THE LANGUAGE OF THE PROBLEM AREA STATEMENT

Scope

The words, concepts or definitions used in the statement of problems are more or less abstract depending primarily upon their SCOPE. Scope refers to the inclusiveness of the class of situations to which a concept applies. The less that is selected from the ongoing phenomena to which it refers, the more abstract or vague the concept. As concepts become more abstract, they acquire wider scope and apply to a greater number and variety of phenomena (5). Thus the concepts shown on the left in Figure 2 are examples of highly abstract concepts (i.e., vague generalities) each referring to a wide scope of reference. Less abstract concepts and words deal with a more limited range of situations and are closer to actual measurement procedures. Examples of somewhat less abstract concepts are shown on the right in Figure 2.

FIGURE 2

SCOPE AND LEVEL OF ABSTRACTION OF CONCEPTS

More Abstract	⟶	Less Abstract
Teacher Competencies	⟶	Instructional Duties Performed
Teaching Effectiveness	⟶	Better Utilization of Talents
Professionally Qualified Teachers	⟶	Certified--Degreed

Clarity

The precision with which concepts specify or connote particular sets of phenomena is an indication of the CLARITY of the concepts. Clarity is greatly affected by whether concepts or words are part of the everyday vocabulary: those which are have difficulty acquiring specialized meanings, or their specialized meanings are often obscures (5,33). The greater the degree of clarity of a concept, (a) the closer it is to being operationally defined, and (b) the better its chances for being objectively measured.

The concepts on the right in Figure 2 are not only less abstract than those on the left, they also indicate somewhat different degrees of clarity. Thus, for example, reference to certified teachers is a way of operationally defining "professionally qualified" teachers and is amenable to objective determination.

Systematic Import

The notion of systematic import is more difficult to discuss without consideration of propositions and theories. It refers to the degree of incorporation of concepts in propositions and theories, or to the contribution which concepts make to explanations and predictions. In education, concepts such as "behavior," "goals" and "intelligence," while they frequently are not operationally defined, are widely used concepts having considerable explanatory utility in a variety of contexts.

Usually a review of the literature related to a particular problem area will provide a basis for a qualitative assessment of systematic import and is a useful mechanism for reformulating initial ideas and for forming new ones (5). Seldom, if ever, does a researchable problem stand by itself. It grows from dissatisfaction with present practice, lack of or conflicts in theory, and builds upon prior research. It is an extension of what others have done or are currently undertaking.

> Science is a systematically cumulated body of knowledge. Theories interrelate individual findings, making their implications more general and permitting greater generalization and transfer to new situations. (The review of literature should) indicate the ways in which the current theory in the field is being built upon or the way in which it's being tested (4,28).

Thus the review of literature permits the researcher to accumulate pertinent information about a problem area as the basis for: a) deriving a specific significant researchable problem; b) identifying the important variables in the problem that must be studied; c) revealing relevant theories, generalizations and propositions which provide clues to possible outcomes of the

research; and d) suggesting the kinds of methods and instruments previously used with similar problems (8,7).

Various learning theories, theories of vocational choice and theories of work adjustment are examples of theories upon which research has been based. Regardless of the problem area, the identification or development of principles and propositions provides a foundation upon which systematic investigation can proceed (8,7). Thus, when the task is one of attempting to delimit a broad problem area statement to a workable or manageable problem, one would attempt to:

A. Reduce the level of abstraction of concepts, words or definitions by using concepts with a more limited scope of reference and those which deal with a more limited range of situations.

B. Substitute concepts which are closer to being operationally defined and objectively measured.

C. Review the related literature to discover the theories, generalities and propositions which might lead to new insights or provide clues to possible methods and procedures.

MODIFYING VARIABLES

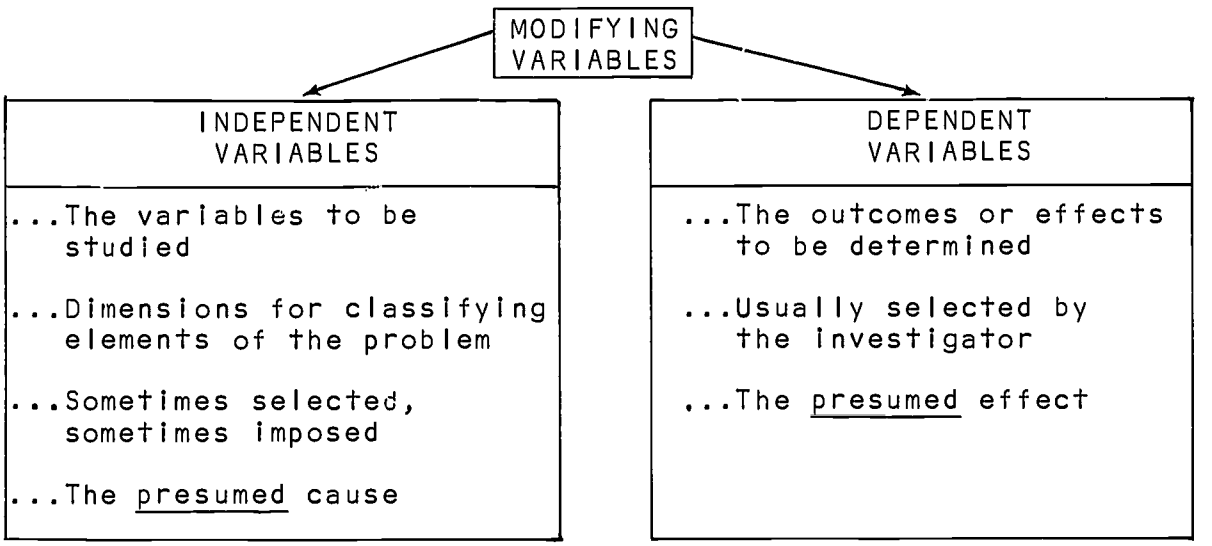
An extremely important and special type or set of concepts for the researcher are those concepts called VARIABLES. Variables are concepts which imply or take on two or more degrees or values. The concept "sex" is a variable which takes on the values of male and female. "Age" is a variable which can take on many different values. Concepts which do not directly imply two or more values (i.e., constants) can often be converted into variables. This can be done by focusing on, or including with a concept, a particular property or characteristic (8,38). "School" can be converted to a variable if the phrase "type of. . ." is added in order to point out the public-private characteristic of schools. Others which might also be used in different situations are degree of. . . and strength of. . .

INDEPENDENT AND DEPENDENT VARIABLES

While the simple notion of attempting to view concepts as variables can be of great assistance in restricting, delimiting and further clarifying a problem area, an additional distinction between INDEPENDENT and DEPENDENT (i.e., modifying) variables is an even more powerful tool.

FIGURE 3

TWO TYPES OF MODIFYING VARIABLES



Independent variables are the variables which the researcher is interested in studying and learning more about. They are the dimensions for classifying the elements of the research problem and are sometimes selected by the investigator and sometimes imposed by other considerations. Independent variables are those presumed to be the cause-and-effect, relational situation.

Dependent variables, on the other hand, are the outcomes or effects to be determined by the researcher. They are usually selected by the investigator because knowledge about them would tend to alleviate or shed light on the original problem. Dependent variables are the presumed effect in a cause-effect relationship. That is, the values which a dependent variable can take on will be dependent upon the values of the independent variable(s).

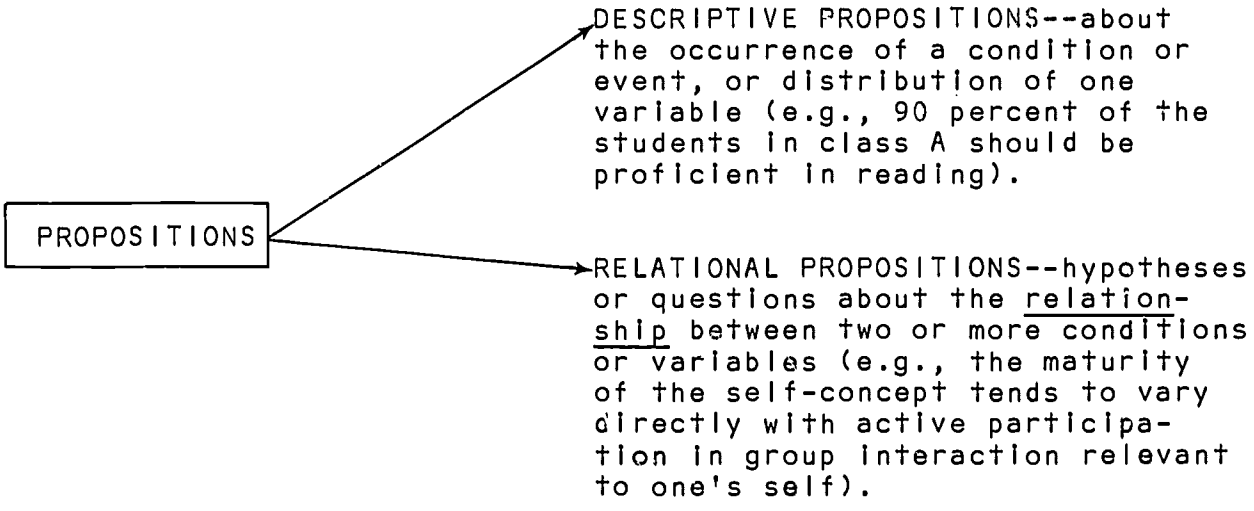
Propositions

Another important devise useful for delimiting broad problem areas is the use of propositions. Propositions are statements about the nature of reality which can be judged true or false (8,37). They are made up of concepts, definitions and variables and can be of two broad types (Figure 4). They can be descriptive statements about the occurrence of a condition, or event, or about the distribution of one particular variable. In a descriptive proposition, no attempt is made to get at possible relationships among variables. Propositions can also be of the relational sort (and most frequently are in the behavioral sciences). Relational propositions are usually hypotheses or questions, about the

relationship between two or more concepts or variables, which can either be empirically tested or objectively answered. Thus, a proposition stating the relationship between some three aspects of a high school instructional program (i.e., three independent variables) to some specific aspect of consumer behavior (the dependent variable) would be a workable, operationally defined problem.

FIGURE 4

TYPES OF PROPOSITIONS



KINDS OF R & D ACTIVITIES

Figure 5 shows that the kinds or types of propositions one is able to or would like to state have a bearing on the kind of research undertaken and on many additional practical considerations.

John Hemphill (3) has pointed out that the basic difference between program research, on the one hand, and project research, on the other, is the commitment made at the outset to the attainment of prespecified outcomes (or objectives) in the case of a program, and to the execution of a set of preplanned activities in the case of a project. In a program, one commits his resources to achievement of a new state of affairs which is considered more desirable than the present one. One organizes the components, tasks and activities to get from the present to a desired state of affairs. Program success is thus measured in terms of attainment of predetermined outcomes and is not dependent upon a predetermined plan (3,6). In fact, (a) because the program plan is so flexible, (b) can benefit from feedback at many different

points, and (c) planning is a continuous activity, this type of activity is usually characterized as development.

FIGURE 5

KINDS OF R & D ACTIVITIES

DESCRIPTIVE PROPOSITIONS	RELATIONAL PROPOSITIONS
·occurrence, frequency distribution of a condition or event ·outcomes--desirable future state	·questions to be answered--hypotheses to be tested ·preplanned activities
PROGRAM (development)	PROJECT (research)

In a project, one commits his resources to the execution of a planned set of activities. What happens as a result of carrying out the set of activities if NOT the measure of project effectiveness: in fact, project outcomes are often not predictable or at least are difficult to anticipate or judge in advance (3,6). Instead, project success is measured in terms of the quality of the execution of a predetermined plan: that is, the efficiency and accuracy with which the project plan is carried out.

I think the main points for making the distinction between programs and projects are that: a) The two types of research involve quite different activities and procedures; b) They can sometimes be detected early in the problem development process because of the two different kinds of propositions associated with the two types of activities; and c) This knowledge can aid the process of problem delimitation. This sort of information must also be viewed in the light of such practical considerations as: a) the amount of time an investigator can devote to a given project, b) the funds and facilities required and available, and c) the investigator's training and special competency.

SUMMARY

Let me now briefly summarize with what I think are the main guides for attempting to delimit a broad problem area statement to a workable or manageable problem. One would attempt to:

A. Reduce the level of abstraction of concepts, words or definitions by using concepts with a more limited scope of reference and those which deal with a more limited range of situations.

B. Substitute concepts which are closer to being operationally defined and objectively measured.

C. Review the related literature to discover the theories, generalities and propositions which might lead to new insights or provide clues to possible methods and procedures.

D. Identify the concepts in the broad problem statement which are variables or construct variables of key concepts. Identify those which are the independent and presumed causal variables and those which are the dependent, outcome variables.

E. Use propositional statements where possible--relational propositions (i.e., hypotheses and questions) between two or more variables and descriptive propositions for single variables will operationally define parts of the problem.

F. Determine whether the problem is more amenable to study in the context of a program or of a project. Programs are more likely to be based upon descriptive propositions; projects on relational propositions. Each type of activity requires a different approach and provides a different set of guides for delimitation.

SELECTED BIBLIOGRAPHY

1. Good, C. V., and Scates, D. E. *Methods of Research*. New York: Appleton-Century-Crofts, Inc., 1954.

2. Hayakawa, S. I. *Language in Thought and Action*. New York: Harcourt, Brace and World, 1949.

3. Hemphill, J. K. "Management and Operation of Educational Laboratories." *Journal of Research and Development in Education*. 3:65-80, Winter 1970.

4. Krathwohl, D. R. *How to Prepare a Research Proposal*. New York: Syracuse University Bookstore, 1965.

5. Phillips, B. S. *Social Research Strategy and Tactics*. New York: The Macmillan Co., 1966.

6. Rummel, F. J. *An Introduction to Research Procedures in Education*. New York: Harper and Row, Publishers, 1964.

7. Schutz, R. E. "The Nature of Educational Development." *Journal of Research and Development in Education*. 3:39-64, Winter 1970.

8. *Technical Report 2*. "Selecting and Developing a Research Problem." Minneapolis: Minnesota Research Coordination Unit, University of Minnesota, 1967.

"DIFFERENTIATED STAFFING FOR VOCATIONAL AND TECHNICAL EDUCATION IN THE COMMUNITY JUNIOR COLLEGE"

June 4, 1970

JOSEPH P. ARNOLD

The purpose of this brief presentation is to acquaint you with the differentiated staffing effort at The Center and particularly with the research phase in which we are now engaged. Although I will make no attempt to assign secondary importance to the substantive and the critical aspects of differentiated staffing itself, I intend for our discussion of this presentation a few minutes hence to center around development of the problem as presented by Dr. Pratzner.

Systematic expansion and development of vocational education programs, as mandated by the Vocational Education Amendments of 1968, cannot take place without the dedicated services of adequate numbers of professionally qualified teachers. Current estimates of recruitment and preparation levels for vocational teachers indicate that program expansion will be severely retarded by a continued shortage of these persons.

With no large-scale relief through the preparation and recruitment of competent vocational teachers in sight, how can we better utilize the talents of the limited numbers of available teachers to optimize their teaching effectiveness? How can we retain the best teachers in teaching? One potential answer to both questions is to apply differentiated staffing to vocational and technical education. Under differentiated staffing each teacher's roles and responsibilities are assigned on the basis of his ability to perform effectively. All teaching and supporting roles and tasks are assigned or distributed to positions on a hierarchy of teaching and paraprofessional positions.

Allen (1967) claims both students and teachers are losing out because of the present system of staffing. The few excellent teachers spend large amounts of time and energy on routine and marginally professional activities which persons of lesser experience and ability could perform effectively; mediocre teachers meanwhile are handling portions of instruction in which they are largely ineffective. Hence, the best teacher, lacking professional challenge, financial remuneration, and status appropriate for his professional ability, moves on to an administrative or a business or industrial position completely outside of education. Thus, an appropriate differentiation of teaching roles and responsibility would increase the effectiveness of instruction by having teachers

assigned those functions and responsibilities for which they are best suited.

Weissman (1969) implies the following advantages of differentiated staffing: 1) eliminates automatic promotion of teachers, 2) provides for teachers who want limited professional responsibility, 3) encourages young teacher talent to grow, 4) provides flexibility and better use of teacher talent and physical facilities, 5) reduces teacher dropout problems, and 6) allows more efficient in-service education of teachers. Although these advantages are by no means totally peculiar to differentiated staffing, each appears most likely to occur through the application of a well-designed differentiated staffing pattern.

ESTABLISHING THE PLAN

The Center for Vocational and Technical Education at The Ohio State University has begun the development of a differentiated staffing pattern for vocational and technical education initially for post-high school institutions. The initial effort is scheduled over a two-year period, during which the pattern as now developed will be refined through research and then piloted in a school setting. Subsequent research, refinement, and trial of the model in other schools will then be given consideration.

The Center effort is aimed primarily at the definition and establishment of a workable hierarchical staffing structure, or general model, and the devising of an operational plan for its application. Future reports and materials emanating from the Center effort will be aimed at providing local vocational education institutions with a pattern which will specify criteria for hiring staff and for establishing the operational relationships necessary for success under a differentiated staffing arrangement.

Arrangements for piloting are being made with a public community college. The absence of certification constraints and the large amount of contemporary vocational and technical program development in the community colleges were the reasons for piloting in a post-high school institution. It is expected that comprehensive and vocational high schools will be utilized in subsequent pilot trials in order to test the feasibility of the project for application to all levels of vocational education.

THE PROPOSED MODEL

The project staff has developed a model patterned after the work of Allen and Wagschal (1969) and others who have recommended a hierarchical structure of teaching positions based on teaching functions. Figure 1 shows three actual "teacher levels," Master,

Senior, and Associate Teachers. Two levels of aides are the Occupational Specialist and the Clerical-Maintenance Aide, both to be defined as support staff for vocational teachers. Job descriptions which differentiate among the levels will be developed from the relatively limited amount of available data and from new research.

FIGURE 1

A CLASSIFICATION MODEL FOR STUDY
AND APPLICATION OF DIFFERENTIATED STAFFING
TO VOCATIONAL AND TECHNICAL EDUCATION

	Roles and Responsibilities		Traits and Experiences	
	I Substantive/ Technical	II Pedagogical	III Personal Traits	IV Experience Patterns
Master Teacher				
Senior Teacher				
Associate Teacher				
Occupational Specialist				
Clerical-Maintenance Aide				

Horizontal categories I through IV suggest the comprehensiveness of the job to be done. Columns I and II, Roles and Responsibilities, or performance elements, include essentially all tasks and behaviors which staff in the five levels are expected to exhibit or perform; columns III and IV consist essentially of all significant traits and suggested experience elements which persons at each of the five levels should possess for use in describing what staff in the five levels are expected to be or to have done.

The anticipated approach for research and development for each column in the classification model is summarized as follows:

Column I--The many occupational program areas and disciplines encompassed by vocational education and the many levels and emphases within each suggest that the detailed development of teacher tasks and roles relating to each substantive area is nearly impossible at this point in time. A short-range plan will be utilized developing teaching roles in those occupational areas to be taught in the pilot institution for application to the model.

Task lists developed for U.S. Air Force occupations (Christal, no date) are being studied for alignment with the civilian occupational sector and subsequent application as a base for occupational curricula in the pilot school. As each curriculum is completed, key teachers in the pilot school, qualified specialists, and Center project staff will translate the curriculum to teaching roles and tasks for application to the model in Column I. Assignment and distribution of the teaching roles to the proposed model will be accomplished within the research framework as devised for assignment of roles in Column II.

Column II--The pedagogical tasks and responsibilities of the vocational teacher have had some attention in research to date but are by no means available for ready adaptation to differentiated staffing. U.S. Air Force developed task lists and other Center research on teacher tasks will serve as the primary data base for differentiation of professional tasks already identified as the most significant to vocational teaching. The tasks will be assigned to the appropriate level(s) in the differentiated staffing hierarchy by a group of experienced vocational teachers and administrators. Later, periodic assessments during the pilot year will attempt to measure the extent to which these tasks are performed at the assigned levels and will be used to reassign tasks as experience dictates.

Column III--A great deal of research has been conducted which focuses on the personal characteristics and traits desired in teachers. In efforts to define "good teaching," many personal attributes are considered to have relevance. Staff recruitment and appraisal of teaching performance invariably include assessments of such characteristics. Existing teacher appraisal systems will be reviewed and adapted for use in the plan.

Research to be performed during the pilot year(s) will involve rating of personal characteristics in relation to the five positions in the hierarchy. These ratings will focus on development of a personal characteristics profile for each level for potential use as a criterion in hiring and evaluation. Eventual application to assess teacher progress will be coordinated with and must have the support of teachers and administrators in the pilot school.

Column IV--A suggested set of experience standards has been developed for the five levels. These minimums are subject to refinement through review by teaching and administrative staffs in the pilot institution. They are intended for utlimate use as a policy guide in hiring and promotion rather than as specific requirements. Three experience categories in which minimums are suggested are: a) occupational, b) academic, and c) teaching. The experience patterns will aim at balance across the three categories with academic degrees as only one of several criteria for promotion. Actual performance elements, as developed in Columns I and II, will be the main bases for promotion.

PURPOSES OF THE CURRENT RESEARCH

The main purposes of the research currently in process are: a) identify and empirically validate the tasks performed by teachers at different levels in a proposed differentiated staffing system, b) empirically validate teacher levels in terms of the tasks they perform, and c) correlate selected teacher traits and experiences with teachers of different levels in a differentiated system.

Questions to be examined by the research are:

a. Are there differences between teachers of different levels (i.e., Master, Senior, Associate, Occupational Specialist) in the percentage of time spent on different pedagogical and substantive/technical tasks?

b. Are there differences between teachers of different levels in the importance of different pedagogical and substantive/technical tasks?

c. Are there differences between teachers of different levels in their satisfaction with their job performance?

d. Are there differences between teachers of different levels in instructional performance as determined by student ratings of teaching effectiveness?

e. Are there differences between levels of teachers in selected, relevant personality traits and characteristics?

f. Are there differences between levels of teachers in selected aspects of their education, teaching and/or work experiences?

DIFFERENTIATING AMONG THE LEVELS

Functional and natural boundaries which tend to separate the five proposed levels in the hierarchy are not obvious. If the proposed hierarchy can exist only through the imposition of differences in assignment which do not follow function, the system cannot operate meaningfully.

Allen and Wagschal (1969) suggest four differing functions or roles of teachers as initial support of a vocational education staffing hierarchy: a) the anticipator, b) the shaper of concepts, c) the illustrator, and d) the doer. The anticipator describes predominantly the role of the master teacher; he evaluates needs and builds curricula which tend to anticipate changes and needs on the local educational scene. The senior teacher tends to function as a shaper of concepts; he works within a given conceptual mission to adapt and adjust ideas and content to fit the school setting and local student population. The associate teacher is primarily an illustrator; he starts with given courses and prescribed activities; through embellishment and enrichment he makes the activities palatable to the students. The lower levels, particularly the associate teacher and the aides, are doers to a greater extent than are staff in the higher positions.

PRELIMINARY JOB DESCRIPTIONS

Although one prime objective of this research is to produce a defensible, functional description of the roles, responsibilities, and requirements for success at each staff level, a tentative description of each of the five levels is in order.

Master Teacher, Program Leader, Coordinating Teacher--This top instructional position is likely to involve a minimum of 50 percent classroom or other regularly scheduled teaching duties. The master teacher will function as an instructional leader, and will be the guiding force in the planning, initiation, and implementation of new or innovative instructional activities. He may, in some settings, assume the duties of a department chairman, but only if this role does not displace his primary interest and function which is to give direction and effectiveness to instruction in his area. Some responsibility for student advisement is necessary. He will have regular duties which focus on planning and supervising the progress of staff within his area of competency. The salary maximum for the master teacher should overlap administrative salaries in his school system. A 12-month contract is recommended for the master teacher.

Senior Teacher--This professional is a subject matter or occupational specialist and resource person who can be highly effective in nearly any teaching situation within his area. He

cooperates with and assists the master teacher in committee work of various kinds, but is still assigned an 80 to 100 percent teaching load. He qualified for complete supervisory responsibility for student teachers or interns assigned to his area and maintains close student contact by assuming significant amounts of responsibility for student program advisement. He may assume some responsibility for planning and coordination of work assignments for paraprofessionals. His salary maximum should overlap the minimum for master teacher and be commensurate with or beyond the salaries of competent, experienced teachers in similar but nondifferentiated positions. A 12-month contract, coordinated with a plan for adding to industrial or business experience in his field, is recommended for the senior teacher.

Associate Teacher--New teachers, with and without degree preparation, would enter the school system or institution at this level. Although interns and student teachers also will occupy this level, they will be given teaching assignments and duties which are not necessarily as comprehensive as those of the full-time, newly employed teacher. The associate teacher will be provided with a planned sequence of supervised efforts and activities to focus on promotion to senior teacher. Although the associate teacher will perform many of the same activities as the senior teacher, course responsibilities will be more closely supervised and will be parceled out to him as he gains confidence and proves his capability. A great deal of flexibility must be provided in establishing any minimum salary for this individual. Some of the inexperienced vocational teachers hired in at the associate teacher level will have experience and maturity which may justify initial salaries which overlap those of senior teachers. A nine or 10-month contract and a summer plan for improving occupational competence is recommended.

Occupational Specialist--This individual is an "instructional aide" in a true sense in that he will be assigned demonstration and laboratory supervision of students and other more routine tasks closely allied with actual teaching. Duties involving student contact will be under the supervision of an associate, senior or master teacher who may or may not be present. The occupational specialist works closely with equipment and hence may be assigned responsibilities for service of laboratory or special classroom instruments and apparatus. Qualified college students and other part-timers may perform satisfactorily in this job. A great deal of salary flexibility may be indicated to help obtain the peculiar abilities needed as support for the various vocational teaching situations.

Clerical-Maintenance Aide--This position may be filled by one individual for both functions or as separate positions for clerical and for maintenance functions as the size of a department or division dictates. Clerical duties include taking attendance,

recording grades, and other recordkeeping otherwise done by instructional staff. The maintenance assignments may include all routine and selected aspects of special maintenance, repair, and related activities. Associate and senior teachers should have primary responsibility for work assignments and supervision of the C-M aides.

TEACHER PREPARATION

The vocational teachers and administrators in the pilot community college are to play key roles in the development and initial trial of the plan. Initiation of the plan must have strong support from all professional staff affected by it.

A new or rapidly expanding school often hires key teachers at least one semester or term prior to the day classes begin. Presuming that a community college with the described plan for advance hiring of staff can be located and convinced to cooperate, preservice and in-service meetings and individual conferences with the teachers will be conducted.

Several days will be needed for the preservice orientation to facilitate operation under differentiated staffing during the initial pilot year. System monitoring and orientation and classification of special operational relationships will require well planned in-service work with the pilot school's staff throughout the trial year(s).

ANTICIPATED PROBLEMS

Several problem areas are rather prominent in this stage of the study. Assuming that the proposed pattern or hierarchy can be refined into a form acceptable to the administrators and teaching staff of the pilot school and that details in the form of roles, responsibilities, content, and procedures can be applied in the initial trial, the probability of a successful trial and ultimate implementation are contingent upon the solution of other problems. Some of the contingent problems which govern the success of a trial are as follows:

1. Evaluation: Personnel satisfaction and performance ratings throughout an extended pilot period are needed to provide evidence for continuation and refinement of the staffing pattern. Delineation of the roles, responsibilities, traits, and experience patterns as classified in Figure 1 will contain the criteria for evaluation. Through coordination with other research efforts and additional funding, a suitable teacher appraisal system

will be developed. Without systematic, well-planned staff evaluation, the differentiated staffing plan could revert to a single salary schedule and lose any possible effectiveness relative to certain of the purposes originally specified.

2. Staff Involvement and Support: Administrative and teaching staff in the pilot community college will have meaningful involvement in the development and in the application of the differentiated staffing plan. The details of coordinating and utilizing these inputs will become a major part of the differentiated staffing plan.

3. Salary Policies: Salary costs in the initial pilot year, as compared with salary costs with traditional staffing in the pilot institution, may be higher. The administration and academic teaching staff who are not under the plan will need to be knowledgeable about the plan and will need to accept the possibility of this occurrence, at least during the initial piloting.

4. Application to Small Programs: Part-time staff, often hired for programs during their initial low enrollment years, will need incorporation into the structure. New programs seldom if ever will require staff to fill all five levels. Operating provisions will be made for handling the peculiarities of new and existing small programs without reverting to traditional staffing patterns.

IMPLICATIONS

A generalizable, workable plan for differentiated staffing appears to be the most appropriate conceptual framework for breaking from the traditional pattern of teacher promotion based on longevity and academic course work. The break can occur only through careful, cooperative development and application of an evaluation system for appraising the differentiated staffing system and teaching performance within it. The critically important teacher appraisal scheme must focus squarely on the tasks, responsibilities, and roles of the many kinds and styles of vocational teachers.

Whether development and refinement of a suitable differentiated staffing pattern becomes a major emphasis in vocational and technical teacher education remains to be seen. A great deal of experimentation and piloting beyond this initial effort will be necessary. It is reasonable to claim that differentiated staffing contains many crucial elements for relating vocational and technical teacher education to the contemporary needs of society.

REFERENCES

Allen, Dwight W. *A Differentiated Staff: Putting Teaching Talent to Work*. National Commission on Teacher Education and Professional Standards, National Education Association, Washington, D.C., 1967.

Allen, Dwight W., and Peter Wagschal. "Differentiated Staffing for Vocational-Technical Education." *Second Annual National Vocational-Technical Teacher Education Seminar Proceedings*, (October 21-24, 1968). The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio, January 1969.

Broudy, Harry S. "Can We Define Good Teaching?" *The Record*. Volume 70, Number 7, April 1969, Teacher's College, Columbia University.

Christal, Raymond E. *Inputs to Vocational-Technical Education from Occupational Research*. Paper prepared from studies conducted at the Occupational Research Branch, Personnel Research Division, Air Force Human Resources Laboratory, Lackland Air Force Base, Texas.

Weisøman, Rozanne. "Staff Differentiation: An Answer to Merit Pay Debate?" *C.T.A. Journal*. Volume 65, Number 1, January 1969.

RESEARCH SELECT-O-HELP

Five areas of concern to researchers and other educational personnel were selected for the Research Select-O-Help session. These areas and the leaders included: 1) "Utilization of Research Knowledge," Hull; 2) "Review of Literature," Logan; 3) "PERT Concept and Budgeting for Research," Morrison; 4) "Instrument Development," Nelson; and 5)"Research Design and Statistical Analysis," Pratzner. The participants selected three of the five areas to attend, to obtain help with questions. Following is a summary of the discussions.

In one group, the discussion centered on how to get knowledge to the people who need it. It was suggested that there is a need for: 1) developing a system to help secondary teachers keep up to date, and 2) reprocessing information derived from research in more usable form for practitioners. An example was given of how to get information to professional personnel.

The New York State RCU Dissemination Unit in the Bureau of Occupational Research has established 34 centers or branches of the RCU Center. Research material, AIM and ARM, microfiche readers, texts of research are available within a 50-mile radius of anyone in the state. Repackaging of requested materials is duplicated and packaged and available on request. Newsletters go out to all RCU's and state practitioners in the field including administrators, guidance personnel, libraries, and individual requests to Mr. Gregory Benson, dissemination specialist, RCU, Bureau of Occupational Research, State Department of Education, Albany, New York 12224.

Hull discussed Donald Havelock's seven factors which account for most dissemination and utilization of research knowledge as related to the problem of how to get people to change. These factors are: 1) linkage--are the channels there?; 2) structure--organization and coordination; 3) openness--climate, is change desirable?; 4) capacity--size of school, funds available, facilities; 5) rewards; 6) proximity--familiarity or physical nearness; and 7) synergy--persistence of forces.

In the "Review of Literature" group, the following problems were discussed: the purpose of the review of literature; its relationship to the theoretical frameowrk for the research problems; determination of when the review is complete; and some shortcuts or time savers for reviewing the literature. Logan suggested that one purpose of the review of literature is to build the theoretical framework. By being saturated with what is going on in the field, what is known, and where the gaps are in existing knowledge, the researcher can select those conclusions which relate to and surround the problem to be investigated. This conceptual framework becomes, in turn, the guide to further exploration

of what is known about the major variables involved. Another purpose of the review is to eliminate bias by identifying contrasting opinions and relating them to known facts.

In the discussion related to knowing when a review is complete, the leader proposed that a review is complete when all direct relationships have been exhausted. A thorough, well-organized review is evidence of scholarly work, and it will build faith in the entire research activity. Organization is important, particularly when a large body of existing knowledge is related to one of the major variables. A good working approach is from present research towards the past even though the reporting might be structured otherwise. Early research might still be relevant, but the reasons should be carefully identified.

Logan said that there are no shortcuts to a scholarly review. There are, however, various aids available. The ERIC descriptors are very helpful in defining what areas are pertinent to the problem envisioned. Available reviews are also helpful. One should never restrict the review to only one source, because of the many types of limitations which could be operative: subjective judgments, editing, scope, etc.

Morrison's group discussed the PERT (Program Evaluation and Review Technique) concept. They generalized that PERT is a system for keeping track of all the things to be done, the order that things must be done, how much of the resources has been used up, etc. It is a way to keep abreast by establishing deadlines or timing of events.

In the "Instrument Development" discussion, Nelson suggested that development is something you do after you find out somebody else hasn't done it. The following procedure was suggested. The first step in instrument development is instrument search in such literature as Buros, *Mental Measurement Yearbook* and the *Encyclopedia of Educational Research*. Look for instruments in the area you are working in such as homemaking, occupations, etc. Then, to determine the validity and reliability of the selected instrument, go to the research report when it (the instrument) was first used and read (very critically) to see whether you can live with it. Then, if you can't find an instrument which measures accurately what you want to, you decide to develop one.

In the "Research Methodology" group, Pratzner suggested interaction analysis as a good technique to use in the area of curriculum. He said that pilot testing is always quasi controllable. He agreed that good nonparametric tests are discriminating and robust when sampling cannot be randomized. He cautioned that the main limitation to the use of nonparametrics when using intact groups is in the lack of generalizability of the findings.

PART III

CONFERENCE OBJECTIVE 4:

To determine lines of coordination for completion of research projects.

PART III

COORDINATION POSSIBILITIES FOR RESEARCH PROBLEMS

Gorman presented some ideas related to coordination of research projects. A summary of the ideas presented follows.

Coordination is management of the details of research for the efficient and effective completion of a project within the constraints of time, funds, personnel, etc., involved in the project. The tasks associated with coordination may be administrative, but not necessarily always so. There is need for coordination at state level, interstate level, as well as national level of research activity.

It was suggested that if the conference participants have similar research interests, they may want to select a person as temporary coordinator for the purpose of calling the group together for a meeting. Center personnel cannot serve as coordinator unless directly involved in a Center priority problem research project.

The problems associated with projects which take a long time to complete were discussed. The recommendation was made that the project should be started and completed with the same staff members, therefore, think in terms of shorter time involved especially if graduate assistants are members of the research team.

The participants discussed two types of coordination of existing Federal projects. In one research group of four researchers, there is one coordinator who manages the details of the project and has at this institution the Federal funds for the project. In the other research group of three researchers, the coordination is cooperatively accomplished and each institution represented is funded as separate packages.

Problems related to obtaining funds and budgeting were discussed. It was suggested that funds for research may be available from state departments of education through Part F of the Vocational Amendments of 1968. Funds may also be available under the Hatch Act. If involved in no exchange of outside funding, the higher education institution will probably not charge overhead expenses and computer time. Be sure to check on these items, if you receive outside funding.

PART IV

CONFERENCE OBJECTIVE 5:

To evaluate the conference in terms of the immediate reaction of the participants.

PART IV

The implicit objective of the conference was to stimulate research activity around the identified priority research problems on Consumer and Homemaking Education. This objective cannot be evaluated until a later date. Four types of evaluative feedback were obtained during the conference: 1) a daily random attitudinal check, 2) a daily meeting of the Advisory Committee, 3) a reactor panel the last afternoon of the conference, and 4) the completion of an evaluation instrument the last day of the conference.

ADMINISTRATION OF THE EVALUATION INSTRUMENT

Law developed and administered the instrument used to evaluate the degree of attainment of the conference objectives. This summary of the results of the administration of the instrument was prepared by Law.

SUMMARY OF "END OF THE CONFERENCE REPORT" FORM

The EOTC Report was designed to assess the following:

1. The relationship between group composition and the likelihood of engaging in and/or promoting research.

2. The extent to which participants are already engaged in or expect to be engaged in research.

3. The extent to which the conference proceedings met the interests and needs of participants.

4. The research projects in which there is greatest interest and likelihood of implementation.

Of the total registration of 107, which included participants with a variety of subject matter interests as well as professional positions (see participants list, p. 143), 46 participants filled out the evaluation form. Twenty-one of these 46 participants were teacher educators, 12 were state supervisors, seven were researchers (four of these in combination with teacher education), and 10 were administrators (three of whom were also subject matter teachers).

Teacher educators represented not only the largest group at the conference but also seemed to be the largest contributor to research presently underway. However, those who identify themselves primarily as researchers have more research projects underway than any other group, percentagewise. Those who designated their primary job responsibility as research indicated that 60 to 80 percent of their time was spent in this endeavor. State supervisors, apparently because of their other responsibilities, were not, at the time of the conference, involved in conducting research. However, five supervisors indicated that they will conduct or promote a research project within the year, five said they would do so within the next two years, and only two said they would not be able to conduct or promote research. Since 91 to 100 percent of their time was indicated as spent on supervision, it can be assumed that they will be more likely to promote rather than conduct research themselves. Three of the administrators said they would conduct or promote research within the year, two within two years, and three not at all. Three administrators also reported themselves as presently involved in research, even though they spent 81 to 100 percent of their time as administrators.

Thirty-five of the 46 who filled out the evaluation form considered themselves employed in the profession of home economics education. The largest number (30) were employed by state supported colleges or universities and 12 were employed by state education departments. Generally speaking, these institutions served over 10,000 people.

There seemed to be many sources of grants held by these large institutions as a whole. Federal grants accounted for the largest number with nearly as many state grants recorded. Local grants accounted for about one-third as many as either federal or state grants.

The types of funding resources which participants expected to be available to them, in their profession, were primarily either state or federal grants. Both state and federal grants were listed as equally likely to be available. Participants indicated little likelihood of obtaining grants from local, nonprofit foundation, or industrial sources. The likelihood of support from either of these two sources was only 20 percent of that anticipated through state and federal sources.

About 40 percent of the participants expected that research would be conducted with the assistance of master's or doctoral degree students. Twenty-five percent checked that they would be working with colleagues, and another 25 percent expected to be working with research associates or assistants employed on a temporary or permanent basis. Other suggestions for research assistance were "other institutions" and state Research Coordinating Units.

Table 1 contains a summary of EOTC Form question 10. It might be noted that many participants checked more than one interest while others checked no interest at various stages of the conference.

TABLE 1

EXPRESSED INTEREST IN CATEGORIES OF RESEARCH KNOWLEDGE PRIOR TO, DURING, AND AFTER THE CONFERENCE

Categories of Research Assistance	Of Greatest Interest or Need Prior to the Conference	Of Greatest Interest or Assistance During the Conference	Of Greatest Interest or Need for Assistance Following the Conference
Research Strategy (CIPP Model, PERT Concept, Simulation Packages, Micro-Supervision)	9	20	9
Research Methodology (DELPHI Technique, Instrument Development, Research Design and Statistical Analysis)	12	15	12
Resources for Research (ERIC, Review of Literature, Panel on Allocation of Resources, Utilization of Research Knowledge)	13	7	8
Coordination of Research	9	3	21

Prior to the conference the greatest number (13) were interested in Resources for Research as a category. The Research Methodology category was of next greatest interest as noted by 12 of the participants. Research Strategy and Coordination of Research categories were of interest to nine participants for each category. The category of greatest importance during the conference was Research Strategy, as requested by 20 participants. The Research Methodology category ranked second with 15 participants checking that they received the greatest assistance from this category during the conference. The greatest interest or need following the conference was for Coordination of Research as indicated by 21 of the participants. Research Methodology was checked by 12 participants as being of second greatest interest or need following the conference.

Twenty-five of the participants expected to conduct or promote a research project within the year; 12 see themselves conducting or promoting research within the next two years. Thus, of the 44 responses, 84 percent expect to be either conducting or promoting research within a year or two.

The final question requested the participants to list research problems which have their particular interest. A comparison of these individual problems was made by seeing what support they gave to the list of research problems developed during the conference ("Priorities for Research and Development in Home Economics Education and Related Areas," pp. 153-158). A summary showing how these listed problems supported the conference priority problems follows.

CURRICULUM RELATED

CURRICULUM DEVELOPMENT

(Related to the first and sixth problems in the Final Revision)

-- Developing a curriculum in consumer and homemaking education for elementary, coeducational classes.

-- Development of, experimental test of, and evaluation of viable but different curricular models of consumer and homemaking education courses for learners at each level of age, ability, and social background.

-- Identification of competencies, determination of conceptual structures, development of teaching--learning strategies, and evaluative techniques for consumer and homemaking educational program for middle schools.

-- Conceptualizing consumer and homemaking education.

-- Development of teaching--learning strategies and evaluative techniques for programs at various educational and socioeconomic levels.

(Related to second problem listed in the Final Revision)

-- Ways of instituting curriculum changes at a rapid pace. (Two participants wrote this problem)

(Related to fourth problem listed in the Final Revision)

-- Development and utilization of evaluation techniques and devices for consumer and homemaking education programs for youth and adults.

-- Developing an instrument to evaluate consumer and homemaking programs.

-- Identification of the relative effectiveness of consumer and homemaking education.

-- Evaluation of consumer and homemaking programs in relation to gains and effectiveness for students.

-- Identification of relative effectiveness of consumer and homemaking education at various educational and socioeconomic levels. (Two participants listed this problem)

-- Related to evaluation of consumer and homemaking education.

(Related to fifth and sixth problems listed in the Final Revision)

-- Development and testing of materials on three levels for teaching consumer and homemaking education to disadvantaged youth and underprivileged adults.

TEACHER EDUCATION RELATED

(Related to first problem in the Final Revision)

-- Sensitizing teachers of home economics and related areas to needs, value patterns, characteristics of minority, disadvantaged and other groups different from themselves. (Three participants listed this problem)

(Related to second and third problem in the Final Revision)

-- Preparation of teachers and materials, especially in the consumer area, for a cooperative attack on the area.

-- Identification of teacher competencies.

-- Ways to increase the available repertoire of teaching strategies of consumer and homemaking teachers.

An examination of these stated problems by the participants, indicated that they appeared to be interested in developing and testing consumer and homemaking education curriculum at various educational levels and for different segments of the population. They also were vitally interested in evaluating the effectiveness of consumer and homemaking programs. Some degree of interest was shown in developing programs for teachers, with sensitizing to needs of people different from themselves being the focus. Competencies needed for effective teaching still appeared to reveal itself as a problem area.

APPENDIXES

APPENDIX A

TOPIC: NATIONAL RESEARCH CONFERENCE ON CONSUMER AND HOMEMAKING EDUCATION PROGRAM

NATIONAL RESEARCH CONFERENCE ON CONSUMER AND HOMEMAKING EDUCATION PROGRAM

Monday Evening, June 1

Registration — Lobby, Christopher Inn

Tuesday Morning, June 2

FIRST SESSION: Anna M. Gorman, Presiding

"Welcome"
Robert E. Taylor
Lois Lund

"Introduction and Plans for the Conference"
Anna M. Gorman

"A Look at the Real World of Consumer Problems and Related Educational Needs"
Shirley Kreutz, Recorder
Beulah Converse
Gertrude Lotwin Rosenfield
Gertrude Hendricks

Tuesday Afternoon, June 2

SECOND SESSION:

Reactor Panel: "Tentative List of Critical Research Problems on Consumer and Homemaking Education"
Anne Buis, Recorder
Marie Dirks, Moderator
Mary Allen
Gwen Bymers
Mary Lee Hurt
Roman Warmke

"Preparation for Group Work -- Deciding Upon the Priority Research Problem List"
Julia Dalrymple

"Group Meetings"

Groups	Leaders	Recorders
A	Gwen Bymers	Gwen Cooke
B	Roman Warmke	Mary Mather
C	Mary Allen	Emma Whiteford
D	Mary Lee Hurt	Doris Manning
E	Julia Boleratz	Elizabeth Monts
F	Mary Andrian	Barbara Osborn
G	Mary Ruth Swope	Frances Parker
H	Helen Nelson	Agnes Ridley

"Committee (one member from each group) to Prepare Priority List"

Advisory Committee Meeting

Wednesday Morning, June 3

THIRD SESSION: Barbara Reed, Presiding

Joyce Crouse, Recorder
Ruth Kimpland, Recorder

"Report of Small Committee Recommendations"
Anna M. Gorman

Panel Discussion: "Decision-Making: Considerations in Allocation of Resources and Selection of Research Projects"
Aleene Cross, Moderator
Ruth Hovermale
Harold Binkley
Clayton Omwig

"Group Session (same groups as in Second Session) to Arrange and Revise Priority Research Problems"

Wednesday Afternoon, June 3

FOURTH SESSION: Center for Vocational and Technical Education
The Ohio State University
Aaron J. Miller, Presiding

"Challenge of Being One in Vocational Education"
Aaron J. Miller

"ERIC as a Bibliographical Resource"
Joel Magisos

"CIPP Model for Management Evaluation"
Jerry Walker

"Simulation Packages in Leadership Development"
Darrell Ward

"Micro-Supervision"
Calvin Cotrell

"DELPHI Technique"
Kenney Gray

Advisory Committee Meeting

Thursday Morning, June 4

FIFTH SESSION: Sonia Cole, Presiding
Fannie Lee Boyd, Recorder

"Moving From Research Problems to Possible Projects"
Frank Pratzner
Joseph Arnold

"Group Discussion of Presentation"
Mary Ruth Swope, Leader

"Group Session (same group as in Second Session) to Arrange and Revise Priority Research Problems"

Thursday Afternoon, June 4

SIXTH SESSION: Research Select-O-Help

"Utilization of Research Knowledge"
William Hull, Leader
Marie Meyer, Recorder

"Review of Literature"
Nell Logan, Leader
William Winnett, Recorder

"PERT Concept and Budgeting for Research"
Edward Morrison, Leader
Bertha King, Recorder

"Instrument Development"
Helen Nelson, Leader
Beulah Sellers, Recorder

"Research Design and Statistical Analysis"
Frank Pratzner, Leader
Norma Bobbitt, Recorder

(Participants had the opportunity to visit three of the five groups)

"Discussion of Arranged Priority Research Problems"

"Small Group Meetings"

Advisory Committee Meeting

Friday Morning, June 5

SEVENTH SESSION: Neal Vivian, Presiding
Mary Evan Griffith, Recorder
Frances Parker, Recorder

"Coordination Possibilities of Research Problems"
Anna M. Gorman

"Discussion of Revision No. 2 of Priority Research Problems"

"Evaluation of Conference"
Eloise Law

Friday Afternoon, June 5

EIGHTH SESSION:
Bessie Hackett, Recorder
Bertha King, Recorder
Amy Jean Knorr, Recorder

"Research Interest Group Meetings"

"Reactor Panel to the Conference"
Phyllis Lowe, Moderator
Ruth Kimpland
Shirley Kreutz
Mabel Yates

"A Look at the Future"
Julia Dalrymple
Anna M. Gorman

ADVISORY COMMITTEE MEMBERS FOR THE NATIONAL RESEARCH CONFERENCE ON CONSUMER AND HOMEMAKING EDUCATION

Dr. Julia Dalrymple
Professor, Division of Home Economics Education
School of Home Economics
The Ohio State University
Columbus, Ohio

Dr. Frank Pratzner
Research Specialist
The Center for Vocational and Technical Education
The Ohio State University
Columbus, Ohio

Dr. Peter Haines
Coordinator, Department of Business and Distributive Education
College of Education
Michigan State University
East Lansing, Michigan

Miss Barbara Reed
State Supervisor, Home Economics Education
Division of Vocational Education
State Department of Education
Columbus, Ohio

COORDINATORS AND STAFF

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION

Dr. Anna M. Gorman
Project Director

Dr. Aaron J. Miller
Coordinator
Development and Training Programs

Miss Eloise Law
Research Associate

Mrs. Sandra Thatcher
Technical Assistant

Mrs. Carolyn Everett
Conference Secretary

Mrs. Charlotte Thayer
Secretary to Project Director

APPENDIX B

TOPIC: INDIVIDUALS INVOLVED IN DEVELOPING TENTATIVE LIST OF PRIORITY RESEARCH PROBLEM AREAS BY USE OF THE DELPHI TECHNIQUE

Miss Mary Allen
Associate to the Executive Director for Governmental Relations
American Vocational Association
Washington, D.C.

Dr. Gwen Bymers
Professor and Chairman
Department of Consumer Economics and Public Policy
Cornell University
College of Human Ecology
Ithaca, New York

Miss Lucy Crawford
Professor and Chairman
Distributive Education
Virginia Polytechnic Institute
Blacksburg, Virginia

Dr. Aleene Cross
Professor and Head
Department of Home Economics Education
University of Georgia
Athens, Georgia

Mrs. Casmira De Scipio
Supervisor of Home Economics Program
Cleveland Public Schools
Cleveland, Ohio

Dr. Alberta Hill
Professor and Head
Home Economics Education
Washington State University
Pullman, Washington

Dr. Mary Lee Hurt
Senior Program Office
Department of Health, Education and Welfare
Office of Education
Division of Vocational and Technical Education
Home Economics Education
Washington, D.C.

Dr. Mary Klaurens
Professor
University of Minnesota
Business Education
Minneapolis, Minnesota

Dr. Clarence Maze
Professor
University of Tennessee
College of Education
Business Education
Knoxville, Tennessee

Dr. Elizabeth Ray
Professor
Pennsylvania State University
College of Education
Home Economics Education
University Station, Pennsylvania

Mrs. Clio S. Reinwald
Head State Supervisor
State Department of Education
Division of Vocational Education
Home Economics
Phoenix, Arizona

Dr. Elizabeth Simpson
National Center for Education Research and Development
U.S. Office of Education
Washington, D.C.

Dr. Roman Warmke
Professor
Ohio University
Department of Economics Education
Athens, Ohio

APPENDIX C

TOPIC: FOUR QUESTIONNAIRES USED IN THE DELPHI TECHNIQUE WITH TENTATIVE LIST OF RESEARCH PROBLEM AREAS ON CONSUMER AND HOMEMAKING EDUCATION

QUESTIONNAIRE NO. 1

Your Name _____

Please provide six to 10 endings to the following sentence.

"During the decade ahead, individuals doing research in Consumer and Homemaking Education should concentrate their efforts on the following researchable priority problems. . ."

QUESTIONNAIRE NO. 2

Your Name _____

Below is the list of priority problems in Consumer and Homemaking Education which resulted from Questionnaire No. 1 responses.

After each of the statements, indicate the priority you would attach to each priority research problem listed using the following key:

1. Top priority
2. Second priority
3. Maintain at present level
4. Reduce or discontinue or do not initiate research in this area

In order to face up to the reality of scarce resources, you must distribute your priority rankings in such a manner that you will have an equal number of 1's, 2's, 3's, and 4's.

"During the decade ahead, individuals doing research in Consumer and Homemaking Education should concentrate their efforts on the following researchable priority problems. . ."

Priority Problem List	Priority Ranking
1. _____	
_____	_____
2. _____	
_____	_____

QUESTIONNAIRE NO. 2

Your Name _____

Below is the list of priority problems in Consumer and Homemaking Education which resulted from Questionnaire No. 1 responses.

After each of the statements, indicate the priority you would attach to each priority research problem listed using the following key:

1. Top priority
2. Second priority
3. Maintain at present level
4. Reduce or discontinue or do not initiate research in this area

In order to face up to the reality of scarce resources, you must distribute your priority rankings in such a manner that you will have an equal number (about 17 each) of 1's, 2's, 3's, and 4's.

"During the decade ahead, individuals doing research in Consumer and Homemaking Education should concentrate their efforts on the following researchable priority problems. . ."

Priority Problem List	Priority Ranking
1. Identification of [consumer education] competencies which should be taught in the elementary school, the junior high, high school.	_____
2. Action research to find and/or develop ways of instituting curriculum changes at a more rapid pace. In today's world, it takes too long for the "best we know to do" to be universally done .	_____
3. Proficiency tests to determine who could benefit from consumer and homemaking education and to provide for placement in appropriate courses. What skills do students have and what do they need?	_____
4. Identify the objectives and content regarding environment (intimate, personal environment--clothes, furnishings, rooms, "homes," neighborhoods) that can be taught to boys and girls in elementary and secondary schools.	_____

5. [Determine] the consumer's use of information now provided on labels. . . . . _____

6. Developing techniques and methods for using community resources in conducting programs in home economics. This is particularly useful for the wage-earning occupations, (i.e., use of advisory councils, involving of business and industry and public service employers) . . . . . _____

7. Developing and testing of programs for a "total family approach" in consumer and homemaking education (through elementary, secondary, and adult education). . . . . _____

8. To determine if functional knowledge of the role of values and other behavioral components in decision-making strategies is more or less effective than specific commodity information in increasing the consumers' efficiency in the marketplace . . . . . _____

9. Development of standards and/or criteria for preparing workers for paraprofessional employment in home economics fields, i.e., the "technical" level. These programs will be conducted primarily in community colleges . . . . . _____

10. The development of programs to impact on three major problems of our society: upgrading of household workers (2 million of them); the development of day care centers for children (staffing and management); and adult programs in home economics education to assist welfare families in child care and resource management. . _____

11. Comparative studies [in consumer and homemaking education] to determine:
    a. Effective ways of reaching out-of-school groups and poverty groups (methods, course patterns, facilities, etc.)
    b. Difference in trained and untrained workers (evaluation) . . . . . _____

12. Determine <u>real</u> barriers to development of:
    a. <u>adult</u> homemaking education programs for men and women
    b. homemaking education for boys in elementary and secondary schools
    c. programs designed to prepare youth and adults for occupations using knowledge and skills of home economics . . . . . _____

13. Curriculum development and implementation for wage-earning occupations in home economics, with particular emphasis on cooperative programs. . . . _____

14. Curriculum research and/or revision to take into account the changing role of women in relation to the home and family (i.e., the dual role). Such research should take into account the inclusion of high school boys and girls in home economics classes. . . . . _____

15. Occupational analysis of selected wage-earning jobs (not previously identified) requiring home economics knowledge and skills. . . . . _____

16. Develop and test an instrument that would measure (index) effectiveness of point-of-purchase consumer information (possible follow-up on Lazarus and other department store efforts in this area). . . . . _____

17. Determine competencies -- personal traits and attitudes, knowledge and skills -- needed by teachers involved in team teaching. (e.g., Home economics teacher and social science teacher for family living, three or more home economics teachers with varying background and areas of interest, home economics teacher with other vocational education teachers, home economics teacher with economics and business education for consumer education). . . . . _____

18. Develop a standardized testing instrument which measures the mastery of personal economic concepts, principles, and generalizations. . . . . _____

19. Develop a systematic plan of consultation and related services for teachers of courses related to personal economics. . . . . _____

20. Delineate precisely the distinctions among consumer education, consumer economics, personal economics, and similar nomenclature. . . . . _____

21. Develop a plan of preservice and in-service education in personal economics to prepare teachers to teach effectively in this area of content . . . . . _____

22. Develop a systematic procedure for determining what personal economics content should be taught in the various curriculum categories such as home economics, business education, social studies, and a separate course in personal economics . . . _____

23. Integrating consumer economic concepts in existing secondary-school courses. . . . . _____

24. Developing and implementing consumer education courses for adults. . . . . _____

25. Identification of competencies (common and specialized) needed by teachers [of consumer and homemaking education] and possibly paraprofessionals . . . . . _____

26. Determine the background experiences, traits, knowledge, attitudes, etc., which are related to certain teacher "afflictions" which might be termed:

    -- cookin' - sewin' syndrome
    -- the one-way ites
    -- allergy to in-service education
    -- social blindness
    -- hardening of the curriculum . . . . . _____

27. Determine tasks in teaching home economics (homemaking -- consumer education) which can be performed by aides -- persons with less than B.S. degree working under supervising professional teacher; identify competencies needed by aides; identify competencies teachers need to work with aides . . . . . _____

28. Development and testing of consumer education programs that involve more than one discipline -- as cooperative consumer education programs involving business, home economics, and agricultural education. . . . . _____

29. Try to establish an objective basis for the division of responsibility for consumer education among:

    a. educational institutions
    b. business and industry
    c. governmental agencies. . . . . _____

30. Work with computer science people on alternative delivery systems for making available point-of-purchase consumer information on big-ticket items:
    a. includes determining pre-programmed questions of most value to customer
    b. customers' willingness to use and to pay
    c. location of service
    d. cost of service. . . . . _____

31. Providing legal aid to disadvantaged consumers who have a grievance. . . . . _____

32. A study of contributions of homemaking education to family living. . . . . _____

33. Determining why ghetto school principals feel that Homemaking Education is one of their best educational programs. . . . . _____

34. Identification of problems in family living associated with the mothers' working outside the home. . . . . _____

35. A thorough-going investigation of the situation regarding the work lives of women and vocational education for women (occupations in which they engage, their attitudes toward their work lives, "hang ups" with respect to advancement, men's attitudes toward women in the world of work, etc.). Much research in this general area has been done. It needs to be brought together and the many gaps in the research filled. . . . . _____

36. Development and testing at post-secondary level of curricula for home economics related technical occupations (some that look good are untested) and for realistic preparation for the dual role of homemaker-wage earner (women and men). . . . . _____

37. Would households accept (be willing to pay for) certain consumer or household services if a market delivery system could be organized that would elevate the employer-employee relationship out of the domestic servant class? . . . . . _____

38. Look for an effective alternative to the "holder in due course" doctrine that will protect the rights of the consumer buyer but at the same time will not unduly deter finance flows. . . . . _____

39. Problems related to coordination of classroom instruction with on-the-job training. . . . . _____

40. A study of changes in the mode of living. . . . . _____

41. Critical factors that affect the degree of satisfaction with the style of life different socioeconomic classes have assumed for themselves _____

42. Analysis of the production-consumption activities of the modern American family. What is the nature of production and consumption in the family? How do these two activities interrelate in the modern American home? . . . . . _____

43. The consumer cooperative as a viable business establishment in an economically depressed area. . . . . _____

44. Develop and test several "do-it-yourself" credit counseling techniques that will replace the former credit interview as a "moment of truth" for prospective borrowers . . . . . _____

45. What is the relative effectiveness of consumer and homemaking education in lower socioeconomic groups and middle socioeconomic groups of children? Why? . . . . . _____

46. Explore new institutional arrangements for the transfer of occupancy rights to housing services -- feasibility in the industry, acceptability to household units, etc. . . . . _____

47. Feasibility of providing adequate housing for the rural (or urban) poor in a particular depressed area. . . . . _____

48. What changes in consumer behavior can be attributed to instruction in educational programs? _____

49. In what ways has consumer and homemaking education been integrated with home economics wage-earning education? What are the opinions of students, teachers, graduates, and community members as to the effectiveness of different types of relationships between the two?. . . . . _____

50. Using something like the Flanagan Critical Incident Technique, determine critical areas of decision-making in consumer behavior. What sorts of things cause significant successes and failures in the activities of consumers? In middle socioeconomic homes, in lower socioeconomic homes, in rural ghetto and urban ghetto homes. . . . . _____

51. What sorts of things cause significant successes and failures in the activities of consumers in the lives of women who are simultaneously wage-earners and family members. Separate studies might be made for female wage-earners who live with parents, with husband, with husband and children, and with children but with no husband present. . . _____

52. The content in the consumer education courses in Homemaking Education programs. Are we equipping our students to cope with continual change in the market environment or are we spending too much time teaching them the technical aspects, choice, use, and care of products currently on the market? . . . . . _____

53. Try to identify [family members'] household perception of money and its substitutes, i.e., credit cards, etc., in order to develop more effective teaching strategies and to cope with problems that are emerging as we move toward a checkless, cashless society. . . . . _____

54. Study of customer buying habits in economically depressed areas. . . . . _____

55. To develop a valid definition of consumer competence and translate into sequentially stepped achievement tests. . . . . _____

56. A study of the effects of socio-cultural groups on consumer-homemaking behaviors . . . . . _____

57. Developing and testing [of home economics] curriculum materials for new occupational areas as yet untouched in our curriculum development work, as well as further development in some areas that have been given considerable attention. Some promising curriculum guides are available but not all have been subjected to a rigorous testing in practice . . . . . _____

58. What problems are faced by Puerto-Rican immigrant homemakers in adjusting to life in the continental U.S.? In what ways can education help?. . . . . _____

59. Test effectiveness of various methods of sensitizing home economics teachers to the needs, goals, aspirations, practices, and attitudes of persons different from themselves. . . . . _____

60. To determine the relative effectiveness of individualized strategies for teaching Consumer Education and class/team strategies for teaching Consumer Education . . . . . _____

61. Follow-up study of youth and adults who completed course in wage-earning [home economics related] programs . . . . . _____

62. To determine the optimum conceptual logic and sequence for teaching consumer education through adult. . . . . _____

63. To determine the developmental context within which children (K - 12) achieve certain consumer/economic concepts. . . . . _____

64. To determine if teaching people to be resourceful (in the creative sense of fluency, flexibility and originality) will increase their general efficiency in the marketplace without resort to more specific Consumer Information . . . . . _____

65. Securing adequate medical services for the rural (or urban) poor in a specific geographic area. . . _____

66. Assessment of training needs:
    a. Consumer and homemaking problems
    b. Needs of various segments of population--
       Rural, ghetto, suburban - poor to affluent - ethnic, cultural group needs
       Age groups (in school, out of school)
       Homemaking roles (parent, single adult, manager)
    c. Gainful occupations requiring home economics skills and knowledges . . . . . _____

67. Identification of competencies needed for:
    a. Efficient and satisfying homemaking
    b. Dual wage-earning and homemaking roles
    c. Gainful employment in home economics related occupations . . . . . _____

68. Related problems:
    a. Develop a comprehensively coherent conceptual framework which demonstrates how personal economic decision-making is related to aggregate economic activity and vice versa
    b. Develop curriculum guides to implement the conceptual framework indicated in letter a
    c. Develop a selected bibliography of study materials that can be used by both teachers and student to implement the teaching of the conceptual framework indicated in letter a
    d. Develop student materials to accompany the curriculum guides indicated in letter b
    e. After sufficient teacher and student materials and strategies have been developed, conduct experimental research to compare the relative effectiveness of the various materials and approaches. . . . . _____

69. The consumer's viewpoint of selling of children's, women's, and men's apparel . . . . . _____

QUESTIONNAIRE NO.3

Your Name _____

Accompanying each of the problem statements (a) is your previous response (b), and the consensus response (c). If you have a new response, record it in the space provided (d) and then write the reason for the variation between your new response from the consensus response if indeed there is a variation.

The rating key is the same as in Questionnaire No. 2 -- 1. Top priority; 2. Second priority; 3. Maintain at present level; 4. Reduce or discontinue or do not initiate research in this area.

"During the decade ahead, individuals doing research in Consumer and Homemaking Education should concentrate their efforts on the following researchable priority problems. . ."

Statements* (a)	Your Previous Response (b)	Consensus Response (c)	Your New Response (d)	Reason for Variation between (c) and (d)
1. Identification of (consumer education) competencies which should be taught in the elementary school, the junior high, high school.	_____	Top	_____	1.
10. The development of programs to impact on three major problems of our society: upgrading of household workers (2 million of them); the development of day care centers for children (staffing and management); and adult programs in home economics education to assist welfare families in child care and resource management.	_____	Top	_____	10.

*Numbers the same as in Questionnaire No. 2.

Statements* (a)	Your Previous Response (b)	Consensus Response (c)	Your New Response (d)	Reason for Variation between (c) and (d)
11. Comparative studies (in consumer and homemaking education) to determine: a. Effective ways of reaching out-of-school groups and poverty groups (methods, course patterns, facilities, etc.) b. Difference in trained and untrained workers (evaluation).	_____	Top	_____	11.
25. Identification of competencies (common and specialized) needed by teachers (of consumer and homemaking education) and possibly paraprofessionals.	_____	Top	_____	25.
27. Determine tasks in teaching home economics (homemaking--consumer education) which can be performed by aides--persons with less than B.S. degree working under supervising professional teacher; identify competencies needed by aides; identify competencies teachers need to work with aides.	_____	Top	_____	27.
45. What is the relative effectiveness of consumer and homemaking education in lower socioeconomic groups and middle socioeconomic groups of children? Why?	_____	Top	_____	45.
48. What changes in consumer behavior can be attributed to instruction in educational programs?	_____	Top	_____	48.

*Numbers the same as in Questionnaire No. 2.

Statements* (a)	Your Previous Response (b)	Consensus Response (c)	Your New Response (d)	Reason for Variation between (c) and (d)
50. Using something like the Flanagan Critical Incident Technique, determine critical areas of decision-making in consumer behavior. What sorts of things cause significant successes and failures in the activities of consumers? In middle socioeconomic homes, in lower socioeconomic homes, in rural ghetto and urban ghetto homes.	_____	Top	_____	50.
59. Test effectiveness of various methods of sensitizing home economics teachers to the needs, goals, aspirations, practices, and attitudes of persons different from themselves.	_____	Top	_____	59.
68. Related problems: a. Develop a comprehensively coherent conceptual framework which demonstrates how personal economic decision-making is related to aggregate economic activity and vice versa. b. Develop curriculum guides to implement the conceptual framework indicated in letter (a). c. Develop a selected bibliography of study materials that can be used by both teachers and student to implement the teaching of the conceptual framework indicated in letter (a).	_____	Top	_____	68.

*Numbers the same as in Questionnaire No. 2.

Statements* (a)	Your Previous Response (b)	Consensus Response (c)	Your New Response (d)	Reason for Variation between (c) and (d)
68. d. Develop student materials to accompany the curriculum guides indicated in letter (b). e. After sufficient teacher and student materials and strategies have been developed, conduct experimental research to compare the relative effectiveness of the various materials and approaches.				
8. To determine if functional knowledge of the role of values and other behavior components in decision-making strategies is more or less effective than specific commodity information in increasing the consumers' efficiency in the marketplace.	_____	Second	_____	8.
9. Development of standards and/or criteria for preparing workers for paraprofessional employment in home economics fields, i.e., the "technical" level. These programs will be conducted primarily in community colleges.	_____	Second	_____	9.
14. Curriculum research and/or revision to take into account the changing role of women in relation to the home and family (i.e., the dual role). Such research should take into account the inclusion of high school boys and girls in home economics classes.	_____	Second	_____	14.

*Numbers the same as in Questionnaire No. 2.

Statements* (a)	Your Previous Response (b)	Consensus Response (c)	Your New Response (d)	Reason for Variation between (c) and (d)
15. Occupational analysis of selected wage-earning jobs (not previously identified) requiring home economics knowledge and skills.	_____	Second	_____	15.
18. Develop a standardized testing instrument which measures the mastery of personal economic concepts, principles, and generalizations.	_____	Second	_____	18.
21. Develop a plan of preservice and in-service education in personal economics to prepare teachers to teach effectively in this area of content.	_____	Second	_____	21.
24. Developing and implementing consumer education courses for adults.	_____	Second	_____	24.
28. Development and testing of consumer education programs that involve more than one discipline, as cooperative consumer education programs involving business, home economics, and agricultural education.	_____	Second	_____	28.
36. Development and testing at post-secondary level of curricula for home economics related technical occupations (some that look good are untested) and for realistic preparation for the dual role of homemaker-wage earner (women and men).	_____	Second	_____	36.

*Numbers the same as in Questionnaire No. 2.

Statements* (a)	Your Previous Response (b)	Consensus Response (c)	Your New Response (d)	Reason for Variation between (c) and (d)
41. Critical factors that affect the degree of satisfaction with the style of life different socio-economic classes have assumed for themselves.	_____	Second	_____	41.
49. In what ways has consumer and homemaking education been integrated with home economics wage-earning education? What are the opinions of students, teachers, graduates, and community members as to the effectiveness of different types of relationships between the two?	_____	Second	_____	49.
55. To develop a valid definition of consumer competence and translate into sequentially stepped achievement tests.	_____	Second	_____	55.
57. Developing and testing (of home economics) curriculum materials for new occupational areas as yet untouched in our curriculum development work, as well as further development in some areas that have been given considerable attention. Some promising curriculum guides are available but not all have been subjected to a rigorous testing in practice.	_____	Second	_____	57.
60. To determine the relative effectiveness of individualized strategies for teaching Consumer Education and class/team strategies for teaching Consumer Education.	_____	Second	_____	60.

*Numbers the same as in Questionnaire No. 2.

Statements* (a)	Your Previous Response (b)	Consensus Response (c)	Your New Response (d)	Reason for Variation between (c) and (d)
61. Follow-up study of youth and adults who completed course in wage-earning (home economics related) programs.	_____	Second	_____	61.
64. To determine if teaching people to be resourceful (in the creative sense of fluency, flexibility and originality) will increase their general efficiency in the marketplace without resort to more specific Consumer Information.	_____	Second	_____	64.
67. Identification of competencies needed for: a. Efficient and satisfying homemaking. b. Dual wage-earning and homemaking roles. c. Gainful employment in home economics related occupations.	_____	Second	_____	67.

*Numbers the same as in Questionnaire No. 2.

QUESTIONNAIRE NO. 4

Your Name _____

Accompanying each of the problem statements (a) is your previous response (b), and the inter-quartile range of rankings (c). Enclosed is a list of the reasons reported for changing priority ranking on Questionnaire No. 3. If you have a new rating, place it in the space provided (d). If your present priority ranking (d) lies outside the IQR, will you please give reasons why you challenge the arguments given in favor of the priority ranking on the opposite side of the IQR from your own (e). In other words, if your priority ranking is high, you should refute the low ranking.

"During the decade ahead, individuals doing research in Consumer and Homemaking Education should concentrate their efforts on the following researchable priority problems. . ."

Statements* (a)	Your Previous Response (b)	Consensus Response (IQR) (c)	Your Rating Now (d)	Challenges for Arguments (e)
1. Identification of (consumer education) competencies which should be taught in the elementary school, the junior high, high school.	_____	Top	_____	1.
10. The development of programs to impact on three major problems of our society: upgrading of household workers (2 million of them); the development of day care centers for children (staffing and management); and adult programs in home economics education to assist welfare families in child care and resource management.	_____	Top	_____	10.

*Numbers the same as in Questionnaire No. 2.

Statements* (a)	Your Previous Response (b)	Consensus Response (IQR) (c)	Your Rating Now (d)	Challenges for Arguments (e)
11. Comparative studies (in comsumer and homemaking education) to determine: a. Effective ways of reaching out-of-school groups and poverty groups (methods, course patterns, facilities, etc.) b. Difference in trained and untrained workers (evaluation).	_____	Top	_____	11.
25. Identification of competencies (common and specialized) needed by teachers (of consumer and homemaking education) and possibly paraprofessionals.	_____	Top	_____	25.
27. Determine tasks in teaching home economics (homemaking--consumer education) which can be performed by aides--persons with less than B.S. degree working under supervising professional teacher; identify competencies needed by aides; identify competencies teachers need to work with aides.	_____	Top	_____	27.
45. What is the relative effectiveness of consumer and homemaking education in lower socioeconomic groups and middle socioeconomic groups of children? Why?	_____	Top	_____	45.
48. What changes in consumer behavior can be attributed to instruction in educational programs?	_____	Top	_____	48.

*Numbers the same as in Questionnaire No. 2.

Statements* (a)	Your Previous Response (b)	Consensus Response (IQR) (c)	Your Rating Now (d)	Challenges for Arguments (e)
50. Using something like the Flanagan Critical Incident Technique, determine critical areas of decision-making in consumer behavior. What sorts of things cause significant successes and failures in the activities of consumers? In middle socioeconomic homes, in lower socioeconomic homes, in rural ghetto and urban ghetto homes.	_____	Top	_____	50.
59. Test effectiveness of various methods of sensitizing home economics teachers to the needs, goals, aspirations, practices, and attitudes of persons different from themselves.	_____	Top	_____	59.
68. Related problems: a. Develop a comprehensively coherent conceptual framework which demonstrates how personal economic decision-making is related to aggregate economic activity and vice versa. b. Develop curriculum guides to implement the conceptual framework indicated in letter (a). c. Develop a selected bibliography of study materials that can be used by both teachers and student to implement the teaching of the conceptual framework indicated in letter (a).	_____	Top	_____	68.

*Numbers the same as in Questionnaire No. 2.

Statements* (a)	Your Previous Response (b)	Consensus Response (IQR) (c)	Your Rating Now (d)	Challenges for Arguments (e)
68. d. Develop student materials to accompany the curriculum guides indicated in letter (b). e. After sufficient teacher and student materials and strategies have been developed, conduct experimental research to compare the relative effectiveness of the various materials and approaches.				
8. To determine if functional knowledge of the role of values and other behavior components in decision-making strategies is more or less effective than specific commodity information in increasing the consumers' efficiency in the marketplace.	_____	Second	_____	8.
9. Development of standards and/or criteria for preparing workers for paraprofessional employment in home economics fields, i.e., the "technical" level. These programs will be conducted primarily in community colleges.	_____	Second	_____	9.
14. Curriculum research and/or revision to take into account the changing role of women in relation to the home and family (i.e., the dual role). Such research should take into account the inclusion of high school boys and girls in home economics classes.	_____	Second	_____	14.

*Numbers the same as in Questionnaire No. 2.

Statements* (a)	Your Previous Response (b)	Consensus Response (IQR) (c)	Your Rating Now (d)	Challenges for Arguments (e)
15. Occupational analysis of selected wage-earning jobs (not previously identified) requiring home economics knowledge and skills.	_____	Second	_____	15.
18. Develop a standardized testing instrument which measures the mastery of personal economic concepts, principles, and generalizations.	_____	Second	_____	18.
21. Develop a plan of preservice and in-service education in personal economics to prepare teachers to teach effectively in this area of content.	_____	Second	_____	21.
24. Developing and implementing consumer education courses for adults.	_____	Second	_____	24.
28. Development and testing of consumer education programs that involve more than one discipline, as cooperative consumer education programs involving business, home economics, and agricultural education.	_____	Second	_____	28.
36. Development and testing at post-secondary level of curricula for home economics related technical occupations (some that look good are untested) and for realistic preparation for the dual role of homemaker-wage earner (women and men).	_____	Second	_____	36.

*Numbers the same as in Questionnaire No. 2.

Statements* (a)	Your Previous Response (b)	Consensus Response (IQR) (c)	Your Rating Now (d)	Challenges for Arguments (e)
41. Critical factors that affect the degree of satisfaction with the style of life different socio-economic classes have assumed for themselves.	_____	Second	_____	41.
49. In what ways has consumer and homemaking education been integrated with home economics wage-earning education? What are the opinions of students, teachers, graduates, and community members as to the effectiveness of different types of relationships between the two?	_____	Second	_____	49.
55. To develop a valid definition of consumer competence and translate into sequentially stepped achievement tests.	_____	Second	_____	55.
57. Developing and testing (of home economics) curriculum materials for new occupational areas as yet untouched in our curriculum development work, as well as further development in some areas that have been given considerable attention. Some promising curriculum guides are available but not all have been subjected to a rigorous testing in practice.	_____	Second	_____	57.

*Numbers the same as in Questionnaire No. 2.

Statements* (a)	Your Previous Response (b)	Consensus Response (IQR) (c)	Your Rating Now (d)	Challenges for Arguments (e)
60. To determine the relative effectiveness of individualized strategies for teaching Consumer Education and class/team strategies for teaching Consumer Education.	_____	Second	_____	60.
61. Follow-up study of youth and adults who completed course in wage-earning (home economics related) programs.	_____	Second	_____	61.
64. To determine if teaching people to be resourceful (in the creative sense of fluency, flexibility and originality) will increase their general efficiency in the marketplace without resort to more specific Consumer Information.	_____	Second	_____	64.
67. Identification of competencies needed for: a. Efficient and satisfying homemaking. b. Dual wage-earning and homemaking roles. c. Gainful employment in home economics related occupations.	_____	Second	_____	67.

*Numbers the same as in Questionnaire No. 2.

"EXPERTS' REASONS FOR VARIATION FROM THE CONSENSUS RESPONSES ON QUESTIONNAIRE 3"

Statement Number	Consensus Response	Your Response	Reason for Variation
1	Top	3	--"I think this is a sterile approach to education. I can't imagine giving it top priority."
10	Top	3	--"This is not a research-able problem."
		2	--"The first major problem disqualifies this as consumer and homemaking education since it applies to occupational education."
11	Top	2	--"I hope that direct action takes top priority. Methods research does not lead to very stunning outcomes on the short haul."
25	Top	3	--"I am not changing priorities between 25 and 27 (rated top), but it seems that the two are similar."
		4	--"I think this is a sterile approach to education."
		2	--"I believe we already have these competencies."
27	Top	2	--"I believe we already have these competencies."
		2	--"Good idea but everything cannot have top priority."
		3	--"I would hesitate to identify the boundaries of what aides <u>can</u> do."

Statement Number	Consensus Response	Your Response	Reason for Variation
45	Top	4	--"Point of the question is still not clear."
		2	--"Good idea but everything cannot have top priority."
		3	--"Statement of the problem not clear for me."
48	Top	3	--"Do not feel there is the urgency in this problem that is in other listed problems because this could be a part of some of the other projects."
50	Top	2	--"This is a family economics study, not one for Home Economics Education."
		3	--"Item 50 strikes me as something that would be 'nice to know'."
		not rated	--"What mean by significant success?"
		4	--"As I re-think this one, it seems a better description for home management, family economics or consumer economics experts. Top priority research but should be done helping subject matter specialists, not as home economics education research."
59	Top	2	--"Strikes me as a difficult item to research in a manner in which one could get hard data."
68	Top	2	--"Letter (a) sounds like consumer economics research."

Statement Number	Consensus Response	Your Response	Reason for Variation
		3	--"(a) This exists in basic economic theory and doesn't need to be developed. (b)(c) J.C.E.E. has been doing this for some time. (d)(e) I have an idea that consumer education will be more of a name if there aren't too many 'packaged' materials."
		2	--"Too narrow - only one piece of consumer economics."
8	Second	1	--"This is at the core of what to teach in the Consumer/Homemaking emphasis - we need to come to grips with it."
9	Second	4	--"This is not a part of 'Consumer and Homemaking'."
		1	--"Related to Items 25 and 27."
14	Second	3	--"Matter of Judgment."
15	Second	4	--"This is not a part of Consumer and Homemaking Education. Funds from Part F should not be used for occupational education."
		3	--"So many family related subjects are being introduced in courses other than Home Economics that this seems to me to be about 10 years too late to help Home Economics."
18	Second	3	--"I think quite a bit of work has been done on this in the Economics Education Curriculum Project."
18	Second	4	--"Can this be done with one instrument or method?"

Statement Number	Consensus Response	Your Response	Reason for Variation
		1	--"We need to measure the effects of our educational endeavors."
21	Second	1	--"Still of primary concern to colleges and universities who have responsibility for training teachers."
24	Second	3	--"Development, not research."
		3	--"This to me is not a research problem. If this applies specifically to depressed areas then some research is badly needed."
36	Second	4	--"This is vocational as opposed to consumer education."
		1	--"This level of education is neglected and will be preempted by 'outsiders' if top priority is not given by those in the field."
41	Second	4	--"This statement (have assumed for themselves) turns me off."
		3	--"Probably of more interest to social psychology than consumer economics."
		4	--"Not a Home Economics Education study."
49	Second	4	--"Can't understand why I thought it rated a 2 on the first round."
		1	--"We have no research of which I am aware that even identifies ways of integrating the two programs. How can you do the second until the first is done?"

Statement Number	Consensus Response	Your Response	Reason for Variation
57	Second	4	--"Is the testing encouraged here similar to #61? If so, might move it up in importance."
		4	--"Does not apply to Consumer and Homemaking."
60	Second	4	--"We will find 'no significant differences' on any experimental studies about organizing for teaching."
		1	--"This may be important but to me both are needed and will vary depending on ability, types of individuals, etc. My hunch would be there is already considerable research which applies."
61	Second	1	--"There needs to be some real test of all curriculum guides."
		4	--"Does not apply to Consumer and Homemaking."
		4	--"Not consumer economics."
64	Second	4	--"How do you 'teach people to be resourceful'?"
		3	--"This is a vague and very difficult thing to try to measure or evaluate."
		3	--"Not a Home Economics Education study as much as a family economics one."
67	Second	4	--"Too vocational-oriented for this project."
			--"Covered in other topics."

TENTATIVE LIST OF PRIORITY PROBLEM AREAS

CONSUMER AND HOMEMAKING EDUCATION

"SUMMARY OF QUESTIONNAIRE 4"

Spring, 1970

Priority Level	Statement of Priority Problem Area
Top, 100% Agreement	1. Comparative studies (in consumer and homemaking education) to determine: a. Effective ways of reaching out-of-school groups and poverty groups (methods, course patterns, facilities, etc.) b. Difference in trained and untrained workers (evaluation).
Top, 83.3% Agreement	2. Identification of (consumer education) competencies which should be taught in the elementary school, the junior high, high school.
Top, 83.3% Agreement	3. The development of programs to impact on three major problems of our society: upgrading of household workers (2 million of them); the development of day care centers for children (staffing and management); and adult programs in home economics education to assist welfare families in child care and resource management.
Top, 83.3% Agreement	4. What changes in consumer behavior can be attributed to instruction in educational programs?
Top, 66.7% Agreement	5. Determine tasks in teaching home economics (homemaking--consumer education) which can be performed by aides--persons with less than

Priority Level	Statement of Priority Problem Area
	(continued) B.S. degree working under supervising professional teacher; identify competencies needed by aides; identify competencies teachers need to work with aides.
Top, 66.7% Agreement	6. Test effectiveness of various methods of sensitizing home economics teachers to the needs, goals, aspirations, practices, and attitudes of persons different from themselves.
Second, 83.3% Agreement	1. To determine if functional knowledge of the role of values and other behavior components in decision-making strategies is more or less effective than specific commodity information in increasing the consumers' efficiency in the marketplace.
Second, 83.3% Agreement	2. To develop a valid definition of consumer competence and translate into sequentially stepped achievement tests.
Second, 66.7% Agreement	3. Curriculum research and/or revision to take into account the changing role of women in relation to the home and family (i.e., the dual role). Such research should take into account the inclusion of high school boys and girls in home economics classes.
Second, 66.7% Agreement	4. Critical factors that affect the degree of satisfaction with the style of life different socio-economic classes have assumed for themselves.

Priority Level	Statement of Priority Problem Area
Second, 66.7% Agreement	5. In what ways has consumer and homemaking education been integrated with home economics wage-earning education? What are the opinions of students, teachers, graduates, and community members as to the effectiveness of different types of relationships between the two?
Second, 66.7% Agreement	6. To determine the relative effectiveness of individualized strategies for teaching Consumer Education and class/team strategies for teaching Consumer Education.

APPENDIX D

TOPIC: PARTICIPANTS AT THE NATIONAL RESEARCH CONFERENCE ON CONSUMER AND HOMEMAKING EDUCATION

NATIONAL RESEARCH CONFERENCE ON

CONSUMER AND HOMEMAKING EDUCATION

JUNE 2-5, 1970

PARTICIPANTS

* *Allen, Mary P.* Associate to the Executive Director for Governmental Relations, American Vocational Association, Washington, D.C.

* *Andrian, Mary.* Assistant Professor, Home Economics Education, The Ohio State University, Columbus, Ohio.

* *Arnold, Joseph.* Research Specialist, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

Bailey, Lena. Assistant Professor, Home Economics Education, The Ohio State University, Columbus, Ohio.

Barnes, Robert F. Coordinator, Research Coordinating Unit, State Department of Education, Sacramento, California.

Bengel, Rose Mary. Consultant in Consumer and Homemaking Education, State Department of Education, Baltimore, Maryland.

* *Binkley, Harold R.* Chairman, Department of Vocational Education, University of Kentucky, Lexington, Kentucky.

Black, Mabel. Home Economics Section, State Department of Education, Columbus, Ohio.

** *Blankenship, Martha Lee.* Assistant Professor, Home Economics, Marshall University, Huntington, West Virginia.

** *Bobbitt, Norma.* Assistant Professor, Home Economics Education, Michigan State University, East Lansing, Michigan.

* *Boleratz, Julia.* Associate Professor, Home Economics Education, The Ohio State University, Columbus, Ohio.

Bowers, Jean S. Assistant Professor, Home Economics, The Ohio State University, Columbus, Ohio.

---

* Program Participants
** Recorders

** *Boyd, Fannie Lee.* Associate Professor of Education, Home Economics, University of Georgia, Athens, Georgia.

** *Buis, Anne.* Professor and Head, Home Economics Education, Florida State University, Tallahassee, Florida.

* *Bymers, Gwen.* Professor and Chairman, Department of Consumer Economics and Public Policy, College of Human Ecology, Cornell University, Ithaca, New York.

Chapman, Erna R. Supervisor, Division of Home Economics, D.C. Public Schools, Washington, D.C.

Clements, Irene. Research Assistant, Curriculum Specialist, State Department of Vocational-Technical Education, Stillwater, Oklahoma.

* *Cole, Sonia.* Assistant Director, State Department of Vocational Education, Home Economics Section, Columbus, Ohio.

* *Converse, Beulah.* County Extension Agent, Home Economics, Canfield, Ohio.

** *Cooke, Gwen.* Home Economics Education, Ashland College, Ashland, Ohio.

* *Cotrell, Calvin.* Research Specialist, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

Crabtree, Myrna P. Director, Home Economics and Consumer Education, State Department of Education, Trenton, New Jersey.

Crank, Floyd L. Professor, Business Education, Northern Illinois University, Dekalb, Illinois.

* *Cross, Aleene.* Professor and Head, Home Economics Education, University of Georgia, Athens, Georgia.

** *Crouse, Joyce.* Head, Home Economics Education, Eastern Illinois University, Charleston, Illinois.

* *Dalrymple, Julia.* Professor, Home Economics Education, The Ohio State University, Columbus, Ohio.

Deacon, Ruth. Chairman, Management, Housing, and Equipment, School of Home Economics, The Ohio State University, Columbus, Ohio.

* *Dirks, Marie.* Professor and Chairman, Home Economics Education, The Ohio State University, Columbus, Ohio.

Downing, Roger L. Executive Vice President, Ohio Consumer Loan Association, Columbus, Ohio.

Driver, Margaret. Home Economics Section, State Department of Vocational Education, Columbus, Ohio.

Ehman, Laura M. Chief, Bureau of Home Economics Education, State Department of Education, Albany, New York.

Galbraith, Lilyan K. Professor, Home Economics, Western Kentucky University, Bowling Green, Kentucky.

Glover, Lillie. Research Associate, Home Economics Education, The Ohio State University, Columbus, Ohio.

* *Gorman, Anna M.* Research Specialist, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

Graham, Nancy. Teacher Educator, School of Home Economics, University of Arizona, Tucson, Arizona.

* *Gray, Kenney.* Assistant to the Director, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

Greenwood, Bonnie B. Assistant Professor, Home Economics Education, University of Missouri, Columbia, Missouri.

Grice, Eileen. Associate Professor, Home Economics Educator, Miami University, Oxford, Ohio.

** *Griffith, Mary Evan.* Associate Professor, Home Economics Education, Kansas State University, Manhattan, Kansas.

** *Hackett, Bessie.* Teacher Educator, Vocational Research Coordinator, Illinois State University, Normal, Illinois.

Hanson, Doris E. Executive Director, American Home Economics Association, Washington, D.C.

Hardy, Mamie. Curriculum Consultant, *Changing Times* Education Service, Washington, D.C.

* *Hendricks, Gertrude.* Director of Family Life Program, Youngstown Public School System, Youngstown, Ohio.

* *Hovermale, Ruth.* Dean, School of Home Economics, Winthrop College, Rock Hill, South Carolina.

Hughes, Ruth P. Director, Division of Family Resources, West Virginia University, Morgantown, West Virginia.

* *Hull, William.* Research Specialist, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

Humphreyville, Theresa. Director, Home Economics Division, State University College-Buffalo, Buffalo, New York.

* *Hurt, Mary Lee.* Senior Program Officer, Consumer and Homemaking Education, Division of Vocational and Technical Education, U.S.O.E., Washington, D.C.

Jenkins, Marlyn. Acting Chairman, Department of Home Economics, Kent State University, Kent, Ohio.

Jensen, Helen. Southwest District Supervisor, State Department of Home Economics, State Capital, Oklahoma City, Oklahoma.

Jerry, Marjorie C. Teacher Educator and Curriculum Coordinator, Indiana State University, Terre Haute, Indiana.

Jorgenson, Elaine. Associate Professor and Head, Home Economics Education, Oklahoma State University, Stillwater, Oklahoma.

Kerwood, Robert V. Coordinator of Occupational Education, Pima College, Tucson, Arizona.

* *Kimpland, Ruth S.* Director, Home Economics Department, City School District, Rochester, New York.

** *King, Bertha G.* State Supervisor, Home Economics, Post-Secondary and Adult Programs, State Department of Education, Atlanta, Georgia.

Kister, Joanna. Home Economics Section, State Department of Vocational Education, Columbus, Ohio.

** *Knorr, Amy Jean.* Consultant in Home Economics Education, University of Arizona, Tucson, Arizona.

* *Kreutz, Shirley M.* Home Economics Teacher Educator, University of Nebraska, Lincoln, Nebraska.

Lauscher, Florence E. Consultant, Home Economics Education, Department of Public Instruction, Madison, Wisconsin.

* *Law, Eloise.* Research Associate, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

* *Logan, Nell P.* Professor and Head, Home Economics Education, University of Tennessee, Knoxville, Tennessee.

* *Lowe, Phyllis.* Chairman, Home Economics Education, Purdue University, Lafayette, Indiana.

* *Lund, Lois.* Director, School of Home Economics Education, The Ohio State University, Columbus, Ohio.

Mack, Theresa M. Research Associate, New York State Education Department, Bureau of Occupational Education Research, Albany, New York.

* *Magisos, Joel.* Coordinator, Information Services, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

Malloch, Franciille. Professor, Management, Housing, and Equipment, School of Home Economics, The Ohio State University, Columbus, Ohio.

** *Manning, Doris E.* Professor and Chairman, Home Economics Education, University of Arizona, Tucson, Arizona.

** *Mather, Mary E.* Professor and Chairman, Home Economics Education, University of Illinois, Urbana, Illinois.

Maze, Clarence, Jr. Associate Professor of Business Education, University of Tennessee, Knoxville, Tennessee.

Meis, Ruby. Associate Professor, Eastern Michigan University, Ypsilanti, Michigan.

** *Meyer, Marie P.* Associate Professor, Department of Vocational-Technical Education, Rutgers University, New Brunswick, New Jersey.

* *Miller, Aaron J.* Coordinator for Development and Training, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

Miller, Sandra. Home Economics Education, The Ohio State University, Columbus, Ohio.

** *Monts, Elisabeth.* Chairman, Home Economics Education, University of Wisconsin, Madison, Wisconsin.

* *Morrison, Edward J.* Research Coordinator, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

Murphy, Patricia. Associate Professor, Home Economics Education, North Dakota State University, Fargo, North Dakota.

* *Nelson, Helen Y.* Professor, Community Service Education, College of Human Ecology, Cornell University, Ithaca, New York.

Nickel, Christine E. Supervisor, Home Economics, Wisconsin Board of Vocational-Technical Education, Madison, Wisconsin.

Nygren, Maie. Chairman, Home Economics Department, San Francisco State College, San Francisco, California.

* *Omwig, Clayton.* Director, Vocational Research Coordinating Unit, College of Education, University of Kentucky, Lexington, Kentucky.

Olsen, Geraldine. Extension Specialist-Family Economics, The Ohio State University, Columbus, Ohio.

O'Reilly, Justine B. Supervisor, Home Economics, Portland Public Schools, Portland, Oregon.

** *Osborn, Barbara.* Associate Professor, Home Economics Education, University of Connecticut, Storrs, Connecticut.

** *Parker, Frances J.* Head, Department of Home Economics, University of Idaho, Moscow, Idaho.

Pernice, Laura. Home Economics Section, State Department of Vocational Education, Columbus, Ohio.

* *Pratzner, Frank C.* Research Specialist, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

* *Reed, Barbara.* State Supervisor, Vocational Educational Home Economics Section, State Department of Education, Columbus, Ohio.

Reinwald, Clio S. State Supervisor, Vocational Education, Home Economics Section, State Department of Education, Phoenix, Arizona.

** *Ridley, Agnes F.* Professor, Home Economics Education, Florida State University, Tallahassee, Florida.

Rollow, May. Acting State Supervisor, State Department of Home Economics, Oklahoma City, Oklahoma.

* *Rosenfield, Gertrude Lotwin.* Chief, Assistant Standard Branch USDHEW-S Bldg., Washington, D.C.

Savage, Marjorie. Head, Department of Home Economics, State College for Women, Columbus, Mississippi.

** *Sellers, Beulah E.* Director, School of Home Economics, Ohio University, Athens, Ohio.

Snowberger, Mildred H. State Supervisor of Home Economics, State Department of Public Instruction, Dover, Delaware.

Story, Marilyn. Head, Home Economics Department, University of Northern Iowa, Cedar Falls, Iowa.

* *Swope, Mary Ruth.* Dean, School of Home Economics, Eastern Illinois University, Charleston, Illinois.

* *Taylor, Robert E.* Director, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

Thatcher, Sandra. Technical Assistant, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

Thomas, Mary Lou. Research Associate, Home Economics Education, The Ohio State University, Columbus, Ohio.

Thompson, Alberta. Head, Home Economics Education, Kent State University, Kent, Ohio.

* *Vivian, Neal.* Associate Professor, Distributive Education, The Ohio State University, Columbus, Ohio.

* *Walker, Jerry.* Evaluation Consultant, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

* *Ward, Darrell.* Research Specialist, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

* *Warmke, Roman.* Professor, Economics Education, Ohio University, Athens, Ohio.

** *Whiteford, Emma B.* Professor and Chairman, Home Economics Education, University of Minnesota, St. Paul, Minnesota.

** *Winnett, William L.* Chairman, Business Education Department, San Francisco State College, San Francisco, California.

* *Yates, Mabel.* Supervisor, Consumer and Homemaking Education, State Department of Education, Nashville, Tennessee.

APPENDIX E

TOPIC: FINAL REVISION OF PRIORITY RESEARCH PROBLEMS MADE DURING THE CONFERENCE

"PRIORITIES FOR RESEARCH AND DEVELOPMENT IN HOME ECONOMICS EDUCATION AND RELATED AREAS"

FINAL REVISION

CURRICULUM RELATED (CONSUMER AND HOMEMAKING)

Curriculum Development

-- Identification of competencies, determination of conceptual structures, development of teaching-learning strategies, and evaluative techniques for consumer and homemaking education programs at various educational and socioeconomic levels.

-- Identification and evaluation of ways of instituting curriculum changes at a rapid pace.

-- Identification of content and development of a systematic procedure for determining what supportive services homemaking and consumer education can give to the occupational areas in vocational education.

-- Identification of the relative effectiveness of consumer and homemaking education at various educational and socioeconomic levels.

-- What are the effective ways in consumer and homemaking education of reaching out-of-school groups and poverty groups in relation to: 1) methods of teaching, 2) course patterns (sequencing), 3) facilities, etc.?

-- Developing and implementing consumer education courses for adults. (put in researchable terms)

-- What are the unique contributions of consumer and homemaking education to personal, family, and societal living?

-- Identification of competencies needed for:
   a. Efficient and satisfying homemaking
   b. Dual wage-earning and homemaking roles
   c. Gainful employment in home economics related occupations (put in researchable terms)

Roles, Life Style, Societal Realities

-- Identification of available literature, gaps in the literature on problems of family members with dual roles (males and females) or identification of roles of family members.

-- Utilization of research to develop a series of programs to meet the needs of parents with dual roles.

-- Identification of life styles of various socio-cultural - ethnic groups and the implications for consumer and homemaking education.

-- Identification of critical factors affecting the degree of satisfaction with the life styles which different socioeconomic classes have assumed and their relationship to consumer and homemaking practices.

CONSUMER RELATED

Consumer Behavior

-- Determine if a consumer's value system is of more or of less importance than specific commodity information in making a purchase decision.

-- Alternative delivery systems for making available point-of-purchase consumer information on big-ticket items: a) includes determining pre-programmed questions of most value to consumer, b) customers' willingness to use and pay, c) location of service, d) cost of service.

-- The consumer cooperative as a viable business establishment in an economically depressed area. (put in researchable terms)

-- What factors influence significant successes and failures in the activities of consumers?

-- Identify consumers' perceptions of money and its substitutes in order to develop effective teaching strategies and content.

Consumer Service or Public Policy

-- Evaluate the influence of alternative techniques for credit counseling on consumers' use of credit.

OCCUPATIONAL RELATED

Curriculum Development

-- Development of programs to impact on the upgrading of household workers. Evaluate the level of acceptance of certain household services and the elevation of the employer-employee relationships when a market delivery system is organized.

-- Development of programs to staff and manage day care center for children.

-- Development of adult programs in home economics education to assist welfare families.

-- Develop and test (in practice) curriculum materials for new occupational areas related to home economics, particularly on the post-secondary level.

   a. Development of standards and/or criteria for preparing workers for the realistic preparation for the dual role of homemaker-wage earner (women and men).

-- An analysis and evaluation of different ways that consumer and homemaking education has been integrated with home economics wage-earning education.

-- Curriculum development and implementation of wage-earning occupations in home economics with particular emphasis on problems related to coordination of classroom instruction and on-the-job training (cooperative programs).

Evaluation

-- Follow-up study of youth and adults who completed wage-earning (home economics related) programs. (put in researchable terms)

Competencies

-- Occupational analysis of present and emerging wage-earning jobs requiring home economics knowledge and skill.

TEACHER EDUCATION RELATED

-- Identify and test effectiveness of various methods of sensitizing home economics teachers to the needs, goals, aspirations, practices, and attitudes of persons different from themselves.

-- Identify and describe competencies needed by teachers, paraprofessionals and/or aides in the teaching of consumer and homemaking education as a basis for organizing and implementing programs for preservice and in-service education.

-- Identify competencies needed by consumer and homemaking teachers in order to be able to share responsibilities with co-workers, paraprofessionals, and aides.

APPENDIX F

TOPIC: NAMES OF PARTICIPANTS AND RESEARCH INTEREST AREA

Research Interest Area	Names of Conference Participants		
(see research problem area statements in Appendix E, pp. 153-158)			
1. Curriculum Development	Boyd	Kimpland	Murphy
	Buis	King	Nelson
	Bymers	Knorr	Nickel
	Chapman	Kreutz	Yates
	Cross	Logan	
	Dalrymple	Lowe	
2. Occupational Related	Hurt		
	Snowberger		
3. Teacher Education (number 1 in this category)	Greenwood		
	Nygren		
4. Teacher Education (number 2 in this category)	Bengel		
	Blankenship		
	Galbraith		
	Graham		
	Kerwood		
	Osborn		
5. Teacher Education (number 2 in this category)	Griffith		
	Jensen		
	Jorgenson		
	Rollow		