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# INDONESIA



**Eastern Islands Agricultural Education Project**  
Project No. 497-0293

**Cooperating Groups:**  
BKS (Association of Eastern Island Universities)  
WSU (Washington State University)  
AID (Agency for International Development)  
GOI (Government of Indonesia)

Report to BKS/WSU/USAID

Eastern Islands Agricultural  
Education Project in Indonesia

Alberta Hill

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TECHNICAL ADVISOR'S REPORT

OF

Alberta D. Hill

for

June 23, 1983 to September 23, 1983

Introduction

The Assignment of Margaret M. Hard and Alberta D. Hill during the same time period in 1983 enabled them to supplement and reinforce each others contributions. This report will focus on the activities of Hill but include those activities carried out in cooperation with Hard. Activities carried out in which Hard took major responsibility is more completely discussed in Hard's report.

The emphasis of the three months assignment was the in-service education for staff members in Home Economics (PKK) and Food Science and Human Nutrition. The goals and activities planned were built upon the work done by Hill (3 month assignment, 1980-81) and Hard (6 month assignment 1981-82). Consideration was given also to the original proposal developed by Rektor Karim, IKIP, Ujung Pandang for Home Economics and the Food Science proposal of Sam Ratulangi University. Some suggestions for direction came from Robert Haggerty, Technical Advisor in Food Science and Douglas Podall, Technical Advisor in Rural Sociology, both on two year assignments. Reports of other short term technical advisors, particularly those of Alice Spitzer, Robert Howell and Robert Norton were also considered.

The general purpose of the work reported here was to continue to expand and improve programs in BKS-T universities which prepare personnel

for schools, non-formal education and universities. Although improved production, processing and distribution of food and food products has been the focus of the E.I.A.E.P. efforts in improving instruction and research in agricultural sciences, the ultimate purpose of the project is to improve the quality of life in the Easter Islands. The "quality of life" is also dependent upon the families' ability to manage resources to assure adequate nutrition, sanitation, desirable housing and education of children. Therefore, the preparation of home economics personnel is an essential and integral part of the total project.

### I. Scope of Work As Related to Logical Framework

#### A. Curriculum and Syllabi

The curriculum and content of courses in the teacher education programs in Home Economics at IKIP Ujung and Pandang and Manado were the focus of the work done. "Curriculum" as discussed here includes: planning the sequence of College courses; KNN programs for the Home Economics students; proposed use of the Telecommunication System; and materials for Program Belajar Jarak Jauh (BJJ Distance Learning), the off-campus program for upgrading teachers who have not had college training. IKIP Ujung Pandang has been selected as the University to develop the Home Economics modules to be used in BJJ throughout the IKIP system.

The Ministry of Education has given leadership to development of a national curriculum to be used in IKIPs for the preparation of Home Economics teachers. The format used includes: competencies to be developed, learning experiences, basic content and time to be spent in lecture and practicums for each competency. The national committee

work completed prior to June 1983 was a listing of Basic Content for very generally stated competencies. In the one week workshop conducted by Hill and Hard, more specific statements of competencies, as well as learning experiences and methods of evaluation were added to the national curriculum material.

B. Specialized Program

In the workshop held for Home Economics personnel at IKIP Ujung Pandang, August 8-13, 1983, areas of content included: Clothing, Child Care and Guidance, Families in Society, Home Management, Housing and Household Equipment. (Proceedings of this workshop are on file in the offices of the WSU Campus Coordinator and BKS-T in Ujung Pandang; a copy of Hills lecture outlines, in English, appear in Appendix A). The workshop included lecture-demonstrations and/or practicums on field trips as Learning Experiences, Purposes and Methods of Evaluation and PKK in Satellite Programs. Lectures were given on a World View of Home Economics, Cultural Adaptation of Home Economics, KKN, Non-Formal Education and BJJ.

The Workshop procedures were developed to:

1. Strengthen subject matter background of lecturers in Home Economics.
2. Continue to expand university programs to develop competencies in all aspects of PKK.
3. Develop methods needed to validate course content, identify needs of families and evaluate courses taught.
4. Review national curriculum outlines and further develop these outlines.

5. Expand knowledge and skills in teaching methods.
6. Develop contacts among lecturers in BKS-T universities which will make it possible for them to share ideas and materials.

Additional sessions with PKK staff at IKIP Ujung Pandang were: demonstration/lecture on management of food laboratory classes (with Hard); methods of teaching money management; and content of courses in Home Nursing (see Appendix B). At IKIP Manado one session was conducted with the staff from the total Education Faculty on Child Growth and Development and with the PKK staff to discuss variety of learning activities and principles of evaluation (Appendix C).

The workshop on Food Safety and Sanitation held in Manado September 12-16, 1983 at UNSRAT will be reported more completely by Hard. Hard and Hill were responsible for sessions on Food Safety and Sanitation in the home and in food service. Hill presented sessions on: Personal Hygiene; Home Water Sources and Home Waste Disposal; Cleanliness of Equipment and Facilities in the Home; Handling, Cooking and Storage of Eggs and Milk; Handling and Storage of Dry Foods and Pest Control; and Home Canning. Hill also worked with Adelheid Doda who completed her masters degree in Education at WSU, on a session on methods of presenting content into class instruction. (A copy of the Hill's lecture outlines are included in Appendix D).

An evaluation form for the workshop and for lecture notes (diktat) were prepared by Hill (Appendix E).

## II. Procedures and Preparation for Technical Assistance Assignment

In Fall 1982, Hill and Hard developed, "A Coordinated Plan for Senior Technical Advisors in Home Economics and Food Science and Human Nutrition"

which was presented to the Campus Coordinator, Chief of Party in Indonesia and Robert Haggerty. The plan included both separate and cooperative activities. A schedule for 5 to 6 months was also developed. The basic plan was altered to adjust to reduced time and to take into consideration suggestions of the reviewers.

Plans for the workshops could not be completed until arrival in Indonesia. The objectives and plans were further developed with some of the trainees. Scheduling was planned in light of other BKS-T activities and the commitments of persons involved. For each workshop a local steering committee worked with Technical Advisors and University and Bks administrators on the detailed planning. (Names of Committees are included in workshop Proceedings).

Pre-departure preparation included identification and assembling resource materials: texts, slides, curriculum guides and course outlines, and other illustrative materials. Two complete sets of curriculum guides from Home and Life Education, Washington Office of Superintendent of Public Instruction, were secured to take to the two IKIPs. Copies of reference material and other texts were left with appropriate Departments at IKIP Ujung Pandang, IPIP Manado and Sam Ratulangi University.

### III. Accomplishments Related to Logical Framework

Basic accomplishments are indicated in Part I, Scope of Work.

#### Other Contributions

Both Hill and Hard conferred with Alice Spitzer, Technical Advisor, Library, on lists of books and other publications to be ordered in areas of Home Economics, Food Science and Nutrition. After Spitzer left, Hill compiled orders for books in these areas as request forms came from the 10 universities.

Hill accompanied Anwar Pasau on a visit to 12 students involved in the Joint KKN program who are carrying out preacticuums in four villages in Sinjai, South Sulawesi. The purpose of the trip was to help assess the effectiveness of the special Joint KKN pre-practicuum preparation. An attempt was made to identify KKN participation for which PKK students need preparation and guidance. Recommendations were forwarded to Rektor Parawansa by letter.

A short visit was made to Haluoleo University where a joint meeting was held with the Pertanian and Pendidikan faculties. The pertanian faculty are aware of the complex interactions of culture and agriculture development and the influence of modern technology and mass media on eating habits and nutrition. Development of programs which would involve both agriculture and education and other social sciences were suggested as a way of approaching the complex interrelationships of culture and agriculture production.

Conference at Pattimura University were primarily with Dr. Nanere, Pembantu Rektor I, and Dr. Dan Lawalata and Dean Ben Turuday in Pertanian Faculty. Through a rather dramatic and intriguing demonstration of uses of sagu and cassava (kasbi) as major carbohydrate foods in a village home, the pertanian staff members made very clear their concern and interest in the possible re-emphasis on production and use of these traditional food.

#### IV. Communications/Networking

"Networking" with counterparts in other countries as well as among the BKS-T universities will contribute to the development of staff competency. For this reason, the aborted plan for short term out-of-country training for PKK staff was disappointing. The objectives of this training included



study of curricula, laboratory facilities and methods, teaching materials and research methods. However, one of greatest values would have been the contacts made with home economists in other countries -- 8 other Asian countries at the Asian Regional meeting and additional contacts at the University of Philippines and Universitas Pertanian of Malaysia. The UPM contacts would have particularly valuable because of the opportunity to share materials in the common language. Because of the perceived value of the out-of-country training, considerable time was spent in arranging contacts and schedules. This included correspondence with Seminar Secretariat in Japan, Dr. Autoto Corpus, Dean of Home Economics, Philippines and Dr. Saudin Teh, Extension and Continuing Education Center, Universitas Pertanian of Malaysia. (A copy of proposal is attached Appendix F).

Workshops. One purpose of the workshops described above was to develop contacts among lecturers in the BKS-T universities which will make it possible for them to continue to share ideas and materials. It is evident that this objective is being achieved. Through the two workshops the purposes, methods of use and possibilities for use of the Rural Satellite Project were also communicated to participants. These sessions served to reinforce the cooperative efforts of Dr. Yarberry and Willard Shaw, Director of the Satellite Project.

Agency Networking. A need for networking among organizations and agencies is very apparent. An attempt was made to introduce IPIP Ujung Pandang PKK staff to the resources of the Public Health staff at UNHAS and the Provincial and National offices of the Ministry of Public Health. A conference with Dr. Noor, Vice Rektor for Student Affairs and staff member of Public Health at UNHAS, was helpful in identifying these contacts.

Because PKK staff are unfamiliar with the idea of Credit Unions (they said there were none in Indonesia), the name and address of Credit Union Counseling Office in Jakarta that conducts Credit Union workshops for Foster Parent Plan in Ujung Pandang was secured and provided in PKK Chair.

#### V. Future Work Needed in Specific Area of Study

In order to sustain, as well as improve upon, the achievements made in the WSU/USAID/BKS-T Project in the specific area of Home Economics, the following is needed.

1. Additional development of the details of the national PKK curriculum and further development of course plans (lecture notes) especially needed are teaching materials in bahasa Indonesia which can be used by students.
2. Much more assistance is needed on developing competencies in teaching methods and methods of research and evaluation. Short term training in U.S. or a third country would seem to be an efficient way of providing this assistance.
3. Further development of the Distance Learning Program at IKIP Ujung Pandang, which should be based on a formal follow-up and evaluation.
4. Graduate training for at least two PKK staff members from each of IKIPs to include emphasis in feasible, practical research methods.
5. Support to enable PKK staff the opportunity to observe KKN students in villages. This would enable them to help their students relate university course work to needs to villages. The contacts with Kepala Desa wives, who are responsible for desa PKK

programs, would give the lecturers insights into problems of families.

6. Development of a slide series from Indonesian culture to be used in courses in housing, home management, nutrition, child development and textiles.

#### VI. Recommendations/Evaluations

Some evaluations and recommendations are included in Parts III, IV and

- V. In additions the following recommendations are made:

- A. Program Recommendations and Evaluation

1. See recommendations for Home Economics programs under Part V. In general it can be said that since the work was focused upon the original proposal for Home Economics from IKIP Ujung Pandang, upon prior recommendations from WSU and Indonesian administrators, and upon careful preplanning, the work done was appropriate for the Project.
2. Due to the geographic location of Haluoleu University, the situation of the people to be served by that University, and the status of the current staff, it is recommended that IKIP Ujung Pandang work with Haluoleu University in development of a joint PKK program. The exact form of such a cooperative venture needs further study.
3. A follow-up of staff who have completed graduate programs in U.S., Bogor or a third-country is essential to insure that this training is fully utilized.
4. Only a small start has been made in the "Experimental Village" Project. These "models" need further development.

More needs to be done interrelating production and other economic development activities with improving health and sanitation, family resource management, family planning and education. Additional technical help is needed in disseminating progress that has been made in the Experimental Village project to other districts.

It can be predicted that if support for this program is withdrawn, progress that has been made will soon disappear.

5. If a "Sagu Research and Development Center" is developed at Pattimura University, they will need technical assistance in Food Science to include not only assistance on production methods, economics of production and improved processing methods but on family use of products. (They will need a home economics oriented food scientist).
6. Pattimura and Haluoleu Universities need to give emphasis to "diversified farming" -- or in current terminology, a study of "farming systems" best adapted to small farmers who also earn part of their livelihood by fishing is needed.

#### B. Procedural Recommendations

1. It cannot be said that the project has been indifferent to women. Women have been included as short term trainees, in graduate programs and as technical advisors. One WSU women faculty member was included in the original planning group. However, it is recommended that the inclusion of more Indonesian women in basic planning would be desirable. This might well include the wives of Governors who are responsible for Darma Wanita, the women's organizations for

wives of government employees, and are designated as leaders of the desa PKK programs carried out in their province. The wives of the Bupati, who are more closely involved with the programs in the villages, might also be considered. Another approach could be to identify "Key" women in the various university communities to participate in planning, e.g. Ny Tuti Sinsu in Manado who has been involved in governmental activities, is a church leader and has served on the staff of IKIP.

2. It would appear that return visits by technical advisors who have been accepted by people in Indonesia is both effective and efficient and should be continued when possible. Continued language training for these persons is important.
3. Technical advisors could increase efficiency of time with better support staff -- e.g. available typists. The situation could be improved by adding secretarial help at BKS-T office -- person(s) proficient in English.
4. Housing, that is securing acceptable housing, can be a problem. Although living in a somewhat westernized hotel can be pleasant for technical advisors, it tends to further remove the U.S. participant from their counterparts. It may seem time consuming to cope with a pembantu, local markets, water supply and garbage disposal but facing such problems helps develop an understanding of one's Indonesian Co-workers -- and is probably more valuable use of time than typing.

5. The efforts to communicate with and involve administrators and staff from sites other than Ujung Pandang and Manado need to be [maintained and] improved. Several factors may contribute to the feeling of some Universities that they have received less than others from E.I.A.E.P.: more direct transportation from Jakarta, location of BKST office at UNHAS, size and status of UNHAS and UNSRAT, the fact that BKS chair came first from UNHAS and then from UNSRAT and that Ujung Pandang and Manado have been the location of long term technical advisors (and also of Hard and Hill). The "feeling" needs to be recognized and efforts made to overcome these feelings.

APPENDIX A  
CHILD CARE AND GUIDANCE AND THE FAMILY

Lecture I - Families in Society

Competencies

Ability to:

1. Describe basic functions of families in all culture and throughout history.
2. Identify socio-cultural and economic influences on families -- in own community, in Indonesia and in other cultures.
3. Analyze the effect of different family situations upon the development of children.

Major Topics (Outline of Content)

1. Universal functions of families
  - 1.1. Management of Resources to Feed, Cloth and House the Family
    - 1.11 Kinds of resources managed by families.
    - 1.12 Additional resource management tasks of some families: education, care of disabled, transportation for family members, etc.
  - 1.2. providing social-psychological support for family members.
    - 1.21 Emotional stability provided by permanent family ties.
    - 1.22 Need for intimate, personal relationships.
  - 1.3. Care, guidance and nurturance of children.
    - 1.31 Functions common to all societies -- reproduction, nurturance of infants, acculturation, moral development.
    - 1.32 Influences of culture on care of children.
    - 1.33 Male and female roles (mother and father roles) in caring for children
2. Relationship between families and society
  - 2.1. Differences in urban and rural families
  - 2.2. Effect of governmental policies and programs upon families
  - 2.3. Customs of culture affecting families.
    - 2.31 Mating and marriage customs.
    - 2.32 Accepted roles for men and women.
    - 2.33 Celebrations and holidays.

2.4. Technical changes affecting families

- 2.41 Increased communication -- TV, radio, airmail, improved transportation
- 2.42 Mechanization of agriculture and industry
- 2.43 Introduction of electricity and new equipment into homes.

3. Relationship between family situations and welfare of children

- 3.1 Size of family; family organization.
- 3.2 Economics conditions
- 3.3 Employment of mothers away from home.
- 3.4 Family disharmony and divorce.
- 3.5 Illness in family
- 3.6 Violence in family -- or community.

Major Concepts

- 1. In all societies there is a recognized family unit which has the function of child rearing, managing resources to feed, cloth and house the family, and maintaining interpersonal relationships.
- 2. Family customs differ according to what is considered normal behavior in that culture.
- 3. Families in different cultures and families within a culture have many similarities and differences.
- 4. Family life is influenced by economic conditions, changes in technology and by public policies. (governmental policies)
- 5. The family unit has the responsibility for guiding all aspects of human.



CHILD CARE AND GUIDANCE AND THE FAMILY

Lecture II - Physical, Emotional and Social  
Development of Children

Competencies

Ability to:

1. Recognize the developmental characteristics of children of different ages.
2. Discuss similarities and differences in the development of individual children.
3. Select appropriate "care givers" response to stage of development of infants.

Major Topics (outline of content)

1. Physical, emotional, and social development characteristics.
  - 1.1. Birth to 6 months
  - 1.2 Seven to 16 months
  - 1.3 Seventeen to 36 months
  - 1.4 Three to 5 years
  - 1.5 Six to 8 years
2. Continuum of Development
  - 2.1 Universal pattern of development
  - 2.2 Uniqueness of individual rate of development
  - 2.3 Periods of acceleration and deceleration. (Periods of fast growth and periods of slow growth)
3. Stimulating development in infants.
  - 3.1 Human contacts
    - 3.11 Responses of infants to people
    - 3.12 Providing consistent care.
  - 3.2 Activities to help babies learn
    - 3.21 Activities to help develop motor control
    - 3.22 Activities for intellectual development
  - 3.3 Meeting physical needs
    - 3.31 Importance of breast feeding
    - 3.32 Sleep needs and patterns
    - 3.33 Weaning and weaning foods
    - 3.34 Bathing and cleanliness

Major Concepts

1. There is a universal pattern of human development.
2. Each individual is unique in the rate of development.
3. In order to help the child grow and develop, care and guidance needs to be suited to (adapted to, appropriate for) the development stage of the individual.
4. The stimulation and care given during the first few weeks of life effect the childs learning and development.

\* See attached charts.

CHILD CARE AND GUIDANCE AND THE FAMILY

Lecture III -- Guidance of Play

Competency

Ability to:

1. Select play activities appropriate for age of child.
2. Describe ways of helping children learn through play.
3. Given any toy or play material, indicate how it may help a child develop physically, socially, emotionally or intellectually.
4. List safety precautions to use in guiding play.

Major Topics (Outline of Content)

1. General guides for selecting tyous and play materials.
  - 1.1 Qualities to look for:
    - Durable construction, does not break or come apart easily; no small parts that could come off and be swallowed or put in ears or nose.
    - Colors safe -- not harmful, if put in mouth.
    - Has no sharp edges.
    - Simple in design.
  - 1.2 Limit number of toys or play materials given to child at one time.
  - 1.3 Use of household items and other inexpensive materials.
    - Metal (no sharp edges) and wooden spoons
    - Piece of smooth wood with string attached for pull toy
    - Old clothes for dress-up play
    - Cardboard boxes

Note: Avoid boxes with doors in which child may become trapped and plastic bags.
  - 1.4 Toys and play materials need to used by child
    - Battery operated toys of little value to children
2. Play to promote learning
  - 2.1 For Babies -- 7 through 18 months
    - 2.11 Exploring as play
      - Requires safe environment -- no harmful cleaners, sharp articles or medicines within reach
      - Sitting on lap to explore face, hands or clothes; or touching and feeling food, is play

- Let child drop objects to watch fall
- Provide people, animals and moving objects to watch

#### 2.12 Physical Development

- Small objects to pick up, hold and drop
- Objects to place inside one another

#### 2.13 Language development

- Need to talk to child as much as possible; name articles, parts of body, animals
- Responds to child's sounds and facial and body language important.
- Communicates at eye level so child can watch you speak

### 2.2 Toddlers - 18 months to 3 years

#### 2.21 play for intellectual development

- Need safe environment to explore
- Encourage curiosity: Objects to take apart and put back together; safe objects to put in mouth
- child-safe mirror helps child discover self

#### 2.2 Play for language development

- Encourage monologue -- dolls or animals for child can take to; toy telephone
- Read simple picture books; have books for children to handle

#### 2.23 Play for physical development

- Provide for physical activities -- rolling down hill, falling and getting up, climbing stairs and jumping games.
- Toys to push and pull.
- Balls to roll and throw.

### 2.3 Preschool child - 3, 4, and 5 year olds

#### 2.311 Large muscle development

- Climbing and running games and play equipment
- Development balance -- hopping games; narrow ledges to walk on; tester totters
- wheel and peddle vehicles

2.312 Small muscle development

- Cutting paper -- blunt scissors -- coloring, marking with pencil, hammering
- Articles to fit together or stack
- Practice in turning small knobs, buttoning and unbuttoning buttons, pulling zippers

3.32 Toys and play for social development

2.321 Pretending and role playing

- Dress-up clothes
- Housekeeping toys

2.322 Play with other children

- 3 year olds, parallel play (playing beside each other); 4 year olds cooperative play
- Games and play which require sharing, taking turns or playing by simple rules.

2.33 Toys and play for intellectual (mental development)

2.331 Concrete experiences (hands-on experiences; seeing, touching manipulating) for developing abstract thinking.

<u>Activity</u>	→	<u>Concepts</u>
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- |  |   |  |
|--|---|--|
| • Playing in and with water  | → | nature of liquids                            |
| • Growing plants   | → | plant growth; source of food                 |
| • Putting together puzzles   | → | space relationships                          |
| • Being read to  | → | relationship between written and spoken word |
| • Filling and emptying a pail (bucket)                             | → | concepts of quantity or volume               |
| • Blocks, rocks or other similar articles to arrange and rearrange | → | concepts of numbers                          |

2.332 Encouraging creativity

- Allow for "free" (non-structured) play
- Provide materials for self-expression -- sand piles, modelling clay, construction toys, finger paints, crayons
- Allow for "make believe"
- Praise and accept efforts

2.33 Preparation for school

- Experience with other children in play school or nursery school
- Using chalk board or pencil and paper

- Help child count objects
- Expose to books

### Basic Concepts

1. Toys and play materials which will be of value in children's development will be durable and appropriate for (suited to) the child's age.
2. Safety in play is dependent on the selection of toys, appropriateness for age and adult supervision.
3. Play serves as a media for intellectual (mental), physical (motor) and social development of children.
4. Sensor and motor (physical) activities promote intellectual development.

## HOME MANAGEMENT, HOUSING AND HOUSEHOLD EQUIPMENT

### Lecture I - Home Management

#### Competencies

Ability to:

1. Define home management and explain the benefits of consciously using a management process.
2. Describe the process of management and apply the process to situations in the home.
3. Explain the factors which influence decisions.

#### Major Topics - Outline of Content

1. Definitions
  - 1.1 Using what you have to get what you want.  
Use of family resources to achieve the kind of home the family wants.
  - 1.2 Decision-making and organization involved in the use of resources for achieving family goals
  - 1.3 Process of reducing dissonance between family and its environment as well as between and among family members.
2. Principles of home management
  - 2.11 Clarifying values and setting goals
  - 2.12 Identifying resources
  - 2.13 Organizing - making a plan
    - make a schedule of activities)
    - Divide responsibilities) Decide who is to do what, when
  - 2.14 Implementing the plant
    - 2.141 Control the use of resources, quality of work, time spent
    - 2.142 Give guidance and supervision, if other help
  - 2.15 Evaluating results
- 2.2 Realistic use of management process - cautions
  - \* 2.21 Not a step-by-step process; all parts are interrelated.
  - 2.22 Actions which are repeated can become automatic, that is a habit, and the conscience management proces is not required.
  - 2.23 Dangers in overmanagment
    - Emphasis on management rather than on relationships among family members
    - Efficiency may become more important than teaching children.
    - May take delight or spontaniety out of life and limit creativity.

## 2.3 Decision-making

- \* 2.31 Decision-making involved in all management processes
- \* 2.32 Decisions are influenced by values, goals, past experiences and current problems.
- 2.33 Steps in decision-making
  - 2.331 Identifying the problem
  - 2.332 Getting information and formulating possible choices or alternatives
  - 2.334 Selecting a course of action

## 3. Applying principles of home management. An example from area of Housing.

### 3.1 Clarify values and goals

Value: A house which promotes good health and comfort for family (or just healthy family)

Goal: add screen doors so outer doors can be left open to increase ventilation and to help keep out flies and mosquitoes

### 3.1 Identify resources needed

- Rupiah to buy materials for door, or door
- Tools to cut screen and frames, make exact measurements, attach screen to frames, apply hinges, etc., -- if making doors
- Toko which sells doors and/or materials
- Carpentry skill

### 3.3 Organizing and implementing plan

Note: Process of organizing and implementing are considered together

- Make decision to buy screen doors, one at a time
- Determine places of purchase and cost
- Plan how many rupiah to set aside each week in order to buy one door every 3 months; determine ways to save for this amount; for example, buy less bottled drinks
- Locate neighbor or relative with skill to hang doors and determine a way to "pay" this person with own skills.

### 3.4 Evaluation

After one screen door is installed, consider:

- Does screen door improve ventilation? Help keep out insects?



- Did saving rupiah for the door place a hardship on the family? Was benefit worth the cost?
- Was the person who hung the door skillful? Do you need to find another person?

#### Major Concepts

1. Home management is a method of achieving specific family goals.
2. Individual and family values serve as guides for determining goals.
3. The conscious use of management process helps in achieving goals.
4. Management is a complex, interrelated process which included setting goals, identifying resources, organization and implementation of a plan and evaluation.

HOME MANAGEMENT, HOUSING AND HOME EQUIPMENT

Lecture II -- Household Equipment

Competencies

Ability to:

1. Select household equipment suitable for a particular task, the person using the equipment and frequency of use.
2. Plan appropriate storage for household equipment.
3. Demonstrate care needed to maintain specific pieces of household equipment made from different materials.

Major Topics

1. Selecting equipment for intended use
  - 1.1 Nature of the task
  - 1.2 Frequency of use
  - 1.3 Age and ability of person using equipment
2. Economic and cultural factors affecting selection of equipment
  - 2.1 Social customs
  - 2.2 Family goals, practices and resources
  - 2.3 Availability of equipment
3. Storage and care of equipment
  - 3.1 Storage for convenience in use of equipment
  - 3.2 Importance of storage in maintaining equipment
  - 3.3 Effect of available storage upon the kind and amount of equipment purchased
4. Care and maintenance of equipment
  - 4.1 Use of labels and manufacturers' manuals in care and maintenance of equipment.
  - 4.2 Care of different pieces of equipment; of different materials
    - 4.21 Care of cutting tools
    - 4.22 Care of cooking utensils
    - 4.23 Care and maintenance of electrical equipment
    - 4.24 Care of different kinds of stoves
    - 4.25 Care of refrigerators and coolers
    - 4.26 Sanitation in the care of cleaning and laundry equipment
    - 4.27 Safety precautions in care and maintenance of equipment

5. Design and construction of household equipment
  - 5.1 Durability and construction
  - 5.2 Design for ease in use and cleaning
  - 5.3 Properties of the materials used in household equipment
    - 5.31 Heat conducting and heat resistant properties of metals, glass ceramics, plastic, wood
    - 5.32 Effect of acid and alkaline foods and cleaning materials upon different materials
    - 5.33 Porus and nonporus materials.

#### Basic Concepts

1. To make work of the home easier and to eliminate unnecessary expenditures, equipment needs to be selected which is suitable for the nature of the task, the worker and each home situation.
2. Available storage space will influence (affect) the kind and amount of equipment purchases and the use of equipment.
3. Care, use and maintenance of equipment is affected by the construction and by the materials used.

HOME MANAGEMENT, HOUSING AND HOUSEHOLD EQUIPMENT

Lecture III - Housing

Competencies

Ability to:

1. Discuss the effects of housing upon family life.
2. Illustrate methods of providing for physical, social and psychological needs of the family; demonstrate knowledge of facts needed in providing for these needs.
3. Plan space, storage and furnishings in relation to activities of a family.
4. Demonstrate the application of aesthetic principles in home interiors and furnishings.

Major Topics

1. Role of housing in family life
  - 1.1 Meeting basic physical needs for shelter and protection
    - 1.11 Protection from wind and rain
      - 1.111 Design of house
      - 1.112 Building materials suitable for roofs, foundations and walls
    - 1.12 Controlling temperature
      - 1.121 Methods and materials for insulation
      - 1.122 Providing for ventilation
      - 1.123 Heating and cooling equipment
    - 1.13 Protection from insects and rodents
      - 1.131 Physical barriers such as screens and calking holes.
      - 1.132 Methods of taking care of waste water and garbage
  - 1.2 Providing facilities for sleeping, bathing and eating
  - 1.3 Providing a setting for social and psychological development of family members
    - 1.21 Space and furnishings to encourage family interactions
    - 1.22 Ways to provide privacy
    - 1.23 Space for play and creative activities

- 1.4 A place to keep and store personal belongings
  - 1.41 Kinds of storage needed for clothes, household equipment, tools, keepsakes (family pictures, souvenirs) books, toys and work materials.
  - 1.42 Building and improvising storage
2. Factors affecting space organization and selection of furnishings
  - 2.1 Traffic patterns of the everyday family activities
    - 2.11 Determining traffic patterns and heavy traffic areas
    - 2.12 Arrangement of furniture to facilitate traffic
    - 2.13 Selecting flooring or floor coverings suitable for heavy traffic areas.
  - 2.2 Kind of work centers needed
    - 2.21 Identify "centers" needed by family members for activities such as sewing, laundry, study, babies, meal preparation, and play
    - 2.22 Organization of work centers for convenience

NOTE: Principles of organizing work centers may be taught in relation to kitchen planning, which usually is the place of major activity in the home, and may be included in a course in management of household equipment. Students should be helped to see that the same principles apply in planning other work centers.

  - 2.3 Family customs or entertaining guests
    - 2.31 Space and furnishings for entertaining individual callers and small groups.
    - 2.32 Entertaining large groups
      - 2.321 Innovative uses of space and furnishings
      - 2.322 Analyzing needs for entertaining large groups
  - 2.4 Size of family; age of family members
  - 2.5 Values, income and occupation of family members.- 3. Aesthetic aspects of houses and home furnishings
  - 3.1 Principles of color applied to interiors
    - 3.11 Effects of light and dark colors
    - 3.12 Color combinations; color harmonies
    - 3.13 Use of the colors of nature
  - 3.2 Principles of balances applied to interiors
    - 3.21 Effects of formal and informal balance
    - 3.22 Balance in arrangement of furnishings and accessories

3.3 Line, form and shapes in home interiors

3.31 Effects created by line, form and shapes

3.32 Relation of form to function

3.4 Use of textures to create aesthetic effects

Major Concepts

1. The amount of space in the home and its organization affect the physical, social and psychological well-being of the family members.
2. The activities of the family members affect the amount of space needed, the organization of space and the kind and quality of equipment and furnishings needed.
3. The number, size, design and location of storage facilities can simplify or complicate family living.
4. Design in house and furnishings includes the process of using the basic elements of line form, shape, texture and color.

## APPENDIX B

### OUTLINES FOR SEMINARS CONDUCTED FOR PKK STAFF AT IKIP UJUNG PANDANG

#### HOME NURSING SEMINAR

##### Resources

Ministry of Health -- Sulawesi Selatan Kantor  
Public Health Staff, UNHUS (Dr. Noor)  
Nurses -- Public Health or Hospital

##### Important Concepts and Outline of Related Content

1. Concept: Prevention of accidents and illness is the responsibility of family members.  
Outline of Content:
  - Causes of accidents:
    - Falls: climbing on boxes, chairs, etc; broken steps, slippery floors.
    - Burns: Hot oil, boiling water, open fires, careless use of kerosene/
    - Electrical burns or shock: improper wiring, repairing electrical equipment without turning off power, using electrical equipment near water.
  - Prevention of illness.
    - Purifying water.
    - Proper handling of food -- prevention of contamination and spoilage
    - Clean personal habits
    - Control of insects and rodents.
2. Concept: Illness that prevails (coughs, diarrhea, pain in abdomen, fevers), severe burns and cuts, and broken bones should be treated by trained medical person.  
Outline of Content:
  - Determining when to get professional help.
  - Ways of checking for broken bones.
  - Kind of cuts that need stitches.
  - Knowing what is a second or third degree burn.
  - Symptoms of appendicitis.
  - Knowing when a fever becomes dangerous.
3. Concept: Sanitation and sterilization is very important in caring for the ill or injured.  
Outline of Content:
  - Methods of purifying water for washing wounds.
  - Methods of sterilizing tweezers, or needles used to remove splinters.
  - Use of sterile bandages; methods of sterilizing bandages.
  - Cleanliness of "home nurse".
4. Concept: Immediate treatment can often prevent extensive physical damage or death.  
Outline of Content:
  - Procedures for taking care of:
    - Choking
    - Heart attacks (CPR)
    - Shock
    - Poisoning or overdose of drugs.
    - Asphyxiation -- carbon monoxide or other gas.
    - Drowning.

Appendix B (cont)

5. Concept: Knowledge of how to care for elderly, ill and injured at home will hasten recovery and prevent long recuperation, disability or death.

Outline of Content:

Treatment of cuts, bruises and sprains.

Treatment of diarrhea; preventing dehydration.

Treatment of fever.

Normal temperature

Methods of taking temperature

Temperatures which may be dangerous -- effects of high fevers.

Ways to reduce fever.

Treatment for colds and respiratory infections.

6. Concept: Personal care is important in the care of the elderly and in recovery of an ill person.

Outline of Content:

Making the bed comfortable for patient and "nurse".

Sanitary ways to handle body elimination, vomit, sputum

Methods of bathing -- importance of bath.

Diets for ill, infants and elderly. (Note can be taught in Gizi or Tatalaksana Makanan)

SEMINAR - TEACHING MONEY MANAGEMENT

Some Basic Concepts with Examples of Learning Experiences

1. Concept: The way people manage their resources, including money, depends upon their values and goals. Greater satisfaction in the use of money is achieved if persons are conscious of their goals and values.
- Learning Experiences: Give students a list of articles and ask them to rank them in order in which they would buy them and explain the reason for their ranking. Note values revealed by ranking. Ask students to assume they have just been given an unexpected 100,000Rp to spend; have them decide how they would spend this amount and explain reasons for their choice. Have students identify values or goals related to their choice.
2. Concept: To manage money, one needs to distinguish between "needs" and "wants"; needs will vary from family to family and are influenced by age of family members, cultures and income.
- Learning Experiences: Have a display of real objects, or pictures of objects. Have 2 or 3 students divide the articles into two groups: those they would consider "needs" and those that they might "want: but are not needed. Have other members of the class tell whether they agree or disagree and give reasons for disagreements.
3. Concept: Records of money spent (plus estimates of needs) help in making workable money plans for the future.
- Learning Experience: Illustrate methods of keeping records -- from formal account book (or home computer!!!!) to putting receipts and notes of expenditures into a jar on kitchen shelf.
4. Concept: Management of money requires controlling use -- making and following a spending plan and keeping records.
- Learning Experiences: Use overhead projector to show different forms for recording expenditures. Illustrate simple ways of "budgeting"



such as dividing income into envelopes labeled for each type of expenditure. Emphasize the need for flexibility and need for changing budget as situations change.

5. Concept: Advertising appeals may lead people to buy articles they do not need and even may not want.  
Learning Experience: Bring a large number of "ads" to class. Post around the room and have each person note the kind of appeal of each ad.
6. Concept: Careful buying practices can lead to greater satisfaction and better use of money.  
Learning Experiences:
  1. Have each class member think of one article they have purchased (or one way they have spent money) in the last 6 months that was very satisfying to them and one expenditure which was disappointing. Ask student to write the reasons why one expenditure was satisfying and the other disappointing. Summarize the reasons.
  2. Examine labels of a number of articles: cosmetics, canned foods, clothes, household equipment, etc. Identify all the facts you can learn about the item from the label.  
(Note: This concept may be taught in courses in foods, clothing, grooming, household equipment and/or housing.)
7. Concept: Borrowing money, or use of credit, increases the cost of any purchase; the increase in cost can be very high.  
Learning Experiences: Have student calculate the cost of a loan at x percent interest.  
Explain the concept of "Credit Unions" as a means of saving and borrowing money.

## APPENDIX C

Lecture/Seminar - PKK Staff, IKIP Manado 9 September 1983

### Part I- Teaching Methods

As a teacher educator (for many years!), I am always interested in the way different people describe a teacher and teaching. I am going to ask you to work in pairs and write your definition of "teaching". Make this a brief concise definition -- one sentence.

(Give time to write definitions.)

Now I will ask someone to write these on the chalkboard while Adel translates them for me.

Let us further explore the idea of teaching as guiding learning. These are some ways I see teachers facilitating (helping) learning through guidance:

1. Guides students in the exploration of ideas, articles (things) or phenomena. Examples:
  - a. After a short lecture on values which affect management decisions, (and NEVER lecture more than 10-15 minutes without a "change of pace"-- show picture, ask question, use an anecdote or story) Stop and review: (a) values which come from family beliefs; (b) how values develop over a period of time and change slowly; (c) Satisfying decisions are based on seeing that the decisions agree with our values.
  - b. Point out elasticity of knitted fabric. Have students handle and feel and compare with woven fabric.
  - c. Call attention to signs of malnutrition in a picture of a child.
  - d. Show, by drawing and demonstration what happens to starch when mixed with water and heated. Show difference between rice flour and sago flour.
2. Another kind of Guidance. Give students a problem to solve -- a problem which requires them to apply knowledge. Examples of problems to give students are:
  - a. Devise a way to fasten (close) openings on a garment for an elderly person with arthritic hands.
  - b. Select toys which would be suitable for a 2 year old child.
  - c. Plan for an efficient arrangement of cooking equipment in a typical (traditional) Buganese house.
3. Guidance: Lead students in making generalizations, drawing conclusions. Ask questions which lead students to see similarities and differences. Examples:
  - a. In what ways would the arrangement of kitchens be the same if you were cooking on an open fire, kerosene stove and gas stove?

Lecture/Seminar PKK Manado (cont)

How would the arrangement differ? Why?

b. In what ways are "traditional dress" of different groups in Indonesia alike? In what ways are they different? What factors influence the similarities and differences?

c. (Based on assignment to observe 3 to 5 children of the same age.) What similarities and differences did you observe in size, motor (physical) development, interest span and vocabulary? What do you conclude from your observations?

4, Help student summarize. Examples:

a. Have students list important reasons for breast feeding.

b. Assign student to make a chart giving characteristics (heat conduction, cost and method of cleaning) of kitchen utensils made of tin, enamelware, iron, stainless steel and pyrex.

We have been emphasizing the role of the teacher in guiding. This guidance is very important in using field trips as learning experiences. I am giving you materials which were used at the PKK workshop in Ujung Pandang but which may not be included in the workshop proceedings. (Attached)

Part II - Evaluation

Evaluation is never easy but will be easier and more effective if the objectives of the lesson or course have been clearly stated. Objectives should indicate:

1. Behavior to be developed . Behaviors are knowledge use of knowledge, abilities, skills and sometimes, habits and attitudes.
2. The condition or situation in which behavior is to be demonstrated -- or used.
3. Criteria or standard for behavior. (Sometimes this is only inferred -- as "completely" or "correctly".)

If you will look at the material on evaluation which I have given you we can examine how objectives tell you how to evaluate. (At this time will point out the condition and behavior in the objective in each example as well as the inferred criteria. If time will have participants write an objective which would suggest an evaluation method.) (Attached are materials on Evaluation used.)

## FIELD TRIPS AS LEARNING EXPERIENCES

### General Suggestions for Planning Field Trips

1. Relate field trips to the competencies to be developed in the course. Be sure it will provide an opportunity for students to experience first hand what you are trying to teach.
2. Schedule field trips at the time the related content and objectives are being emphasized in class sessions.
3. Contact the person to be visited well in advance of the field trip. Make needed arrangements with that person and be sure the contact person understands the purpose of the visit.
4. Prepare the students:
  - Suggest questions to ask or have student formulate questions.
  - Present a list of points to be observed.
  - Give students problems to be solved.
5. Follow up the field trip with a discussion of observations and questions as soon after the field trip as possible. Relate observations to past and future class activities.

### Examples of Directions for Field Trips

#### A. Museum Displaying Textiles and Costumes

1. Look for examples of:
  - a. Clothing and textiles symbolic of ceremonial and ritual roles.
  - b. Clothing or textiles representative of family, region or occupation.
  - c. Textiles typical of traditional customs i.e. weddings, funerals, or civic ceremonies.
  - d. Textiles and clothing that reflect technological changes.
  - e. Clothing expressing various elements of design.
  - f. Evolution of styles and changes in fashion.
  - g. Clothing expressing values, attitudes and interests of a given period
2. Formulate an answer to this question: What factors seemed to effect changes in styles and fashion?

#### B. Home Furnishing and Household Equipment Store

1. Examine the construction of furniture. What are the material used -- wood, plastic fabrics? What construction features would affect the durability and comfort?
2. Compare costs of pieces of furniture or equipment. What are the differences in quality, materials used and style of peices which differ in price?
3. Read labels on three pieces of household equipment. Note the information given about the use and care of each piece.
4. Problem: Assume you have \_\_\_\_\_ Rupiah to spend. Select 3 cutting knives which will be the only knives used by a family. Explain why you made this selection.

C. Small Cottage Industry

1. What cultural, aesthetic or economic influences do you observe in the types of products made?
2. Does this industry follow acceptable small business practices?
  - A system of production and quality control?
  - Management procedures for organization of supplies, care of equipment and record keeping including profit/loss determination
3. What are the marketing procedures?
4. How might the weaving processes used affect the construction and care of garments made from the fabric?

D. Pre-school Center.

1. Examine play ground equipment. How would each peice of equipment help a child develop physically, socially or intellectually?
2. Note difference in size and maturity of a group of children who are approximately the same age? Are ther differences between girls and boys?
3. What social, intellectual or physical abilities might the child develop in the guided activities in the classrooms?
4. Observe the type of clothing the children ar wearing. Is the clothing appropriate for the type of activities and stage of development of the children? Does the clothing worn fulfill any psychological or social need of children? How is the clothing worn related to physical needs?

## EVALUATION

### Purposes of Evaluation

1. To get information about the students (Pretest)
  - Background of experiences of students.
  - Feelings or attitudes of students.
  - Level of knowledge or skill. (What competencies do students already have?)
2. To check the progress of students -- at the end of one lesson or after several lessons.
3. To determine the effectiveness of your teaching methods. ( A "test" of your teaching!)
4. To provide feed-back to students; let students know what they do well and what they need to improve.
5. To check the competency of students at the end of a unit (one set of lessons) or at the end of a course.
6. To use as a basis for placement -- in student teaching, KKN or advanced course.
7. To determine grade and as a basis for writing letters of recommendations.

### Steps in Evaluating Student Progress and Accomplishment

1. State the competency to be accomplished.
2. Describe the specific behavior to the student if the competency is achieved. This is the specific objective.
3. Decide when and where the behavior can be observed.
4. Determine who will observe the behavior.
5. Select a method for recording the behavior and for judging, or grading, the extent to which the student has achieved the objective.

### Examples of Following the Steps in Evaluating Student Progress

#### EXAMPLE A.

1. Competency: Understand what influences the kind of clothes people wear.
2. Specific objective: Given pictures of costumes, the student will list social, cultural or economic factors which have influenced the style of the costume.
3. When and where behavior can be observed: Regular class session
4. Who will observe behavior: Other students.
5. Method of observing and recording the behavior: Matching question.

Directions: Present 3 pictures of costumes and a list of social, cultural and economic factors which influence style. Ask each student to select and write on a sheet of paper or card the factors which influence the style of each costume.

Redistribute the responses to teams of students who are asked to judge the accuracy of the lists. Make a record of the number of correct responses of each student.

EXAMPLE B.

1. Competency: Select play activities appropriate for the age of children.
2. Specific objective: Given 10 toys, select the best toy for a 1 year old child, a 3 year old and a 5 year old; explain the reasons for the choice.
3. When and where behavior can be observed: On field trip to toko selling children's toys.
4. Who will observe the behavior: The teacher.
5. Method of observing and recording the behavior: Chart.  
Students will be asked to complete the following chart.  
The teacher will judge the accuracy of the chart, giving 1 point for each appropriate toy and 3 points for each correct reason.

AGE	TOYS	REASONS FOR SELECTION
1		
3		
5		

EXAMPLE C.

1. Competency: Apply the principles of management to situation in the home.
2. Specific objective: Given a specific management problem, apply the processes of management to solve the problem.
3. When and where the behavior can be observed: Written test.
4. Who will observe the behavior: The teacher.
5. Method of observing and recording the behavior: Test question.  
Question - A family with children 6,8 and 10 and with a limited income want to have books for children to read. Describe a possible solution using the management process.

Criteria for grading test question - Give 5 points for each correct management process included in the solution of the problem -- Clarifying the goal; Identifying resources; Planning and organizing; Evaluation

EXAMPLE D.

1. Competency: Plan for the arrangement and storage of household equipment.
2. Specific objective: Given a household equipment item, select the placement of this equipment for convenient use.
3. When and where the behavior can be observed: Written test.
4. Who will observe the behavior: The teacher.
5. Method of observing and recording the behavior: Multiple choice question.

Question I. The most convenient place to store a fry pan would be:  
 a. Stacked with other pans in a cupboard.  
 b. Near the stove.  
 c. Near the dishwashing center.

Question II. The reason for my answer in I is:  
 a. Storing pans near the dishwashing center saves steps.  
 b. Stacking equipment saves space.  
 c. For efficiency, equipment needs to be stored in place of first use.

(note: give credit for selecting the answer in II which matches the answer in I. even if the answer to I is not correct and gets no credit)

GENERAL SUGGESTIONS FOR EVALUATION

1. Provide opportunities for self-evaluation and for students to evaluate each other. In selecting the person to observe the behavior select the person who can best "see" the behavior.
2. If measuring attitudes, be certain the student understands there are no "right" or "wrong" answers.
3. Check lists and rating scales are good evaluation devices to use for evaluating performance in laboratories or practicums.
4. If "essay" questions are used in a test, the criteria to be used in judging the responses should be determined before the test is given.
5. Objective test questions, such as multiple choice questions, need to be examined after the test has been given. If all student selected the wrong answer, either it is not a good question or the teaching was not done well. Rewrite or discard test which seem to be too easy or too hard.
6. Keep a file of evaluation devices such as check lists and rating scales. Keep a file of test items on file cards, one item to a card, to be used in a different sequence or in different length of test.



Personal Hygiene, Home Water Sources and Home Waste DisposalOutline

1. Reminders of sources of food contamination and spoilage.
2. Preventing contamination of food from people.
  - 2.1 Assuring cleanliness of hands, nails and clothes.
    - Soap as a disinfectant
  - 2.2 Developing good personal habits.
    - 2.21 Habits related to sneezing, coughing and spitting.
    - 2.22 Habits related to body elimination.
    - 2.23 Tasting food - precautions.
3. Assuring safe water supply for the home.
  - 3.1 Methods of purifying water.
    - 3.11 Boiling water - for 10 minutes.
    - 3.12 Adding chlorine or iodine.
  - 3.2 Importance of pure water for infants and in preparing infant formula.
  - 3.3 Clean water needed for food preparation.
  - 3.4 Keeping water supply (wells, springs, streams) safe from household waste.
4. Handling Garbage
  - 4.1 Garbage containers for the home.
  - 4.2 Keeping garbage containers clean.
    - 4.21 Ways to wrap garbage - paper, plastic, leaves.
    - 4.22 Cleaning garbage containers.
  - 4.3 Disposing of garbage - burning and burying.
  - 4.4 Precautions in using food scraps for animal feed.

Basic Concepts

1. Disease and micro-organisms causing illness can be transmitted from one person to another through food and water.
2. Cleanliness of food handlers in home, as well as in restaurants, helps prevent contamination of food.
3. Developing good personal habits can help prevent contamination of food.
4. Water which looks clean may contain harmful microorganisms.
5. Sanitation in disposing of food wastes helps control insects, rodents and direct contamination of water and food.

Suggested Objectives for Students

1. Explain ways microorganisms can be transmitted from one person to another through food and water.
2. Develop habits of personal hygiene which can help prevent contamination of food.
3. Describe methods of purifying water; list uses of water in the home which require purified water.
4. Demonstrate sanitary methods of handling food wastes.

Cleanliness of Equipment and Facilities

Outline of Content

1. Dishwashing
  - 1.1 Reasons for using soaps and detergents.
  - 1.2 Use of hot water in dishwashing.
  - 1.3 Disinfectants in dishwashing.
  - 1.4 Special instructions for cleaning knives, cutting boards, wooden spoons and spatulas and grinders.
  - 1.5 Air drying dishes and equipment.
  - 1.6 Cleanliness of dish clothes and dish towels.
2. Cleaning sinks, work spaces (work tables) and floors.
3. Cleaning coolers and refrigerators.
  - 3.1 Relation of temperature to growth of microorganisms.
  - 3.2 Methods of cleaning refrigerators, coolers and vacuum bottles and pitchers (Thermos)
  - 3.3 Relation of cleanliness to efficiency of refrigerators.
  - 3.4 Safeguarding the sanitation of ice.

Basic Concepts

1. Cleanliness is necessary for sanitation but "clean" does not insure sanitation.
2. Properly washed and sanitized dishes, utensils and equipment are essential for food safety.
3. Heat in dishwashing and rinse solutions helps to liquify greasy soils, lowers bacterial counts aids in self-drying and increases chemical activity of detergents.
4. A disinfectant solution such as chlorine can be used to sanitize most dishes, cutlery and cooking pans.

Objectives for Your Students

1. Demonstrate methods of washing and sanitizing dishes and equipment.
2. Explain the reasons for using soap, hot water and disinfectants in dishwashing and cleaning equipment used in food preparation and service.
3. Demonstrate methods of cleaning work spaces and sinks.
4. Explain the process of caring for a refrigerator and methods of cleaning coolers and vacuum bottles and pitchers.

## FOOD SAFETY AND SANITATION IN THE HOME - LECTURE III


### Handling, Cooking and Storage: Eggs and Milk

#### Outline of Content

1. Sources of contamination
  - 1.1 Milk
    - 1.11 Infected animals: tuberculosis and undulant fever.
    - 1.12 Handlers and equipment: scarlet fever, septic sore throat, typhoid fever, gastroenteritis and diptheria.
  - 1.2. Eggs
    - 1.21 Dirty nests -- Pores in eggshell can admit salmonella
    - 1.22 Contamination from environment.
2. Handling and storage of mild and eggs.
  - 2.1 Milk and milk products.
    - 2.11 Boiled or pasteurized milk safer and will keep longer than raw milk
    - 2.12 Immediate cooling of milk important
    - 2.13 Fresh milk -- even pasteurized --, opened canned milk and reconstituted dry milk require refrigeration to keep from spoiling
    - 2.14 Cheeses, yogusr and butter keep longer than fresh milk due to lactic acit and/or high fat contnet but need to be stored in cool place or refrigerated.
  - 2.2 Eggs
    - 2.21 Cool temperatures needed to retard enzymatic action and growth of bacteria;  $-1^{\circ}\text{C}$  to  $-2^{\circ}\text{C}$  needed fro longtime storage.
    - 2.22 Advantages and disadvantages of washing or buffing eggs.
    - 2.23 Methods of coating eggs to slow deterioration.
3. Milk, Eggs and Foods Made with Mild and Eggs as a Source of Food Poisoning (Intoxications and infection)
  - 3.1 High protein content of milk and eggs make them an excellent media for growth of staphylococcus and salmonella.
  - 3.2 Sauces, salad dressings and casseroles which have been cooked and cooled slowly, or reheated to just warm, are ideal for growth of microorganisms
  - 3.3 Staphylococcus can grow at temperatures as low as  $7^{\circ}\text{C}$ ; is killed at  $66^{\circ}\text{C}$  maintained for at least 12 minutes.
  - 3.4 Both milk and eggs can carry salmonella. Cream fillings, custards, cream pies, salad dressings, casseroles often cause salmonella infections. Reprigeration or immediated use is best.

(Note: Foods made with coconut milk and agar-agar are also good media for growth of microorganisms and should be handled much the same as foods made with milk and eggs.)

#### Basic Concepts

1. Milk and eggs are high in protein and make ideal medium for growth of staphylococcus and salmonella.
  2. Milk and eggs can become contaminated from animals which produce them, in marketing or in the home.
  3. Maintaining proper temperatures during cooking, serving and storage is essential for safe use of milk, eggs and milk and products.
- 

Suggested Objectives for Your Students

Your students should be able to:

1. List the sources of contamination of milk and eggs.
2. Explain and/or demonstrate the proper storage of milk, eggs and milk and egg products.
3. Recall "safe" temperatures for keeping foods made with milk or eggs.
4. Distinguish between food borne intoxication (from staphylococcus -- or botulinum) and food borne infection (from salmonella)
5. Accept importance of keeping egg and milk products hot or cold.

FOOD SAFETY AND SANITATION IN THE HOME -- LECTURE IV

Food Preservation: Canning

(Note: A rather extensive outline was prepared which included step by step procedures for canning by hot water bath and pressure cooker. However, after further study of home practices and equipment available in the communities served by the BKS universities it was determined that this was not appropriate and only the rather limited information given below was included. More time was then spent by hand on drying as a method of preservation.)

Outline of Content

1. Canning is a method of food preservation in which food is preserved by:
  - 1.1 Killing micro organisms by heat --
    - 1.11 Low pH foods (tomatoes and acid fruits, 3.7-4.5pH) require 100°C to 116°C.
    - 1.12 High pH foods (non-acid vegetables and meats, above 4.5pH) require 116°C to 121°C.
  - 1.2 Stopping enzyme action
  - 1.3 Protecting food from air -- air is essential for most (not all!) microorganisms and air may carry contamination.
2. In the home, canning may be done by hot water bath or pressure cooker.
  - 2.1 In home canning recommended procedures must be followed exactly and only approved jars and tested pressure cookers should be used.
  - 2.2 Jams, jellies and preserves that have a high sugar content will keep for short periods of time without airtight sealing and can be safely made at home. Pickles which have very high acid content are also easier to preserve.
3. Dangers of botulism poisoning in canned foods.
  - 3.1 Botulism is caused by several types of bacteria "clostridium botulinum".
  - 3.2 Cl. Botulinum often traced to microorganism in the soil but are also found in fish and marine life.
  - 3.3 The poison is a toxin produced by the bacteria. It will only be produced in anaerobic conditions, i.e. sealed canned products and meats in airtight containers.
  - 3.4 Temperature of at least 116°C (240°F) required to kill spores of cl. botulinum.
  - 3.5 Results of botulism poisoning are severe, often fatal. Home canned non-acid foods should be boiled 20 minutes before even tasting.
    - 3.51 Foods with unusual odor or appearance should be discarded. (Do not feed to animals.)
    - 3.52 0.35 micrograms of toxin will kill one person; 1 gram is sufficient to kill 3 million people.
    - 3.53 Symptoms of botulism: effects nervous system, causes paralysis -- most severe in nervous system.

Food Preservation - cont.

4. Selection and storage of canned foods.
  - 4.1 Cans that are bent may have seal broken and should not be purchased -- or used if bent after purchase
  - 4.2 Cans with bulged ends usually indicate spoilage and should not be used.
  - 4.2 All canned food -- including commercially canned food -- should be stored in as cool a place as possible.

FOOD SAFETY AND SANITATION IN THE HOME \_ LECTURE V

Handling and Storage of Dry Foods. Pest Control

Outline of Content

1. Causes of food spoilage in rice, corn, wheat, nuts and flours.
  - 1.1 Mold -- can survive in moisture content as low as 13%
    - 1.11 Mold forms spores which are airborne
    - 1.12 Mold on peanuts produces toxin (aflatoxin) which is very harmful.
    - 1.13 Flour made from sago may have higher moisture content and therefore is more subject to mold.
  - 1.2 Rancidity -- in nuts and whole grains (unmilled) that still contain germ in which there is fat.
  - 1.3 Bacterial contamination from environment and insects and rodents.
2. Storage of Dry Foods
  - 2.1 Dry storage needed to maintain low moisture content.
  - 2.2 Cool temperatures help deter growth of some microorganisms.
  - 2.3 Insect and rodent proof containers protect dry foods. Examples: tin cans with tight lids - may be those which originally contained something else or made for purpose; heavy plastic containers with lids, and glass jars.
3. Pest control
  - 3.1 Major pests which present problems in food safety:
    - 3.11 Insects: flies, cockroaches and weevil
    - 3.12 Rodents: mice and rats.
  - 3.2 Food contamination by rodents.
    - 3.21 Rodents may make food unusable because of droppings and hairs left on food.
    - 3.22 Rodents are carriers of several species of salmonella.
    - 3.23 Rodents can infect food by droppings, filth carried on feed and by gnawing the food.
  - 3.3 Food contamination by insects.
    - 3.31 House flies
      - 3.311 Carries microorganisms on tiny hairs on legs, on feet and by droppings and vomit.
      - 3.312 May infect mice or other animals
      - 3.313 Are carriers of salmonella, shigellosis and many other diarrheal diseases, typhoid fever, tuberculosis, ophthalmia and polio.
    - 3.32 Cockroaches
      - 3.321 May infect food while feeding --regurgitate and eliminate on food
      - 3.322 Are associated with warm, damp places -- sewers and garbage where they pick up pathogenic (disease causing) microorganism.
      - 3.323 Are nocturnal; hard to detect in daytime.
  - 3.4 General suggestions for pest control.
    - 3.41 Sanitary practices: vigorous cleaning and prompt removal of garbage.
    - 3.42 Elimination of breeding places and hiding places.
    - 3.43 Eliminate cracks and openings in buildings.

44

## Handling and Storage of Dry Foods (cont)

- 3.44 Store food in insect and rodent proof containers.
- 3.45 Use insecticides and rodenticides (poisons and sprays) when necessary.
  - 3.451 Keep away from food
  - 3.452 Need specific pesticide for each pest
  - 3.453 Directions for use need to be followed exactly for each pesticide.

### Basic Concepts

1. "Dry" foods such as rice, corn, wheat, beans, nuts and flours do not require moisture for growth of many bacteria but storage in a dry and clean place is important to prevent spoilage and contamination.
2. Mold is a microorganism found on some "dry" foods (especially nuts) and on products made from these foods. (e.g. breads, cakes.)
3. The major sources of contamination of dry foods are insects and rodents; storage should be insect and rodent proof.
4. Rodents and insects carry many pathogenic (disease causing) microorganisms.
5. Sanitation is the most important weapon in control of insects and rodents.
6. Pesticides (sprays and poisons) can supplement but not substitute for sanitation and the exclusion from buildings in pest control.

### Suggest Objectives for Your Students

Your students should be able to:

1. Describe methods of storing dry foods such as rice, wheat, corn, nuts, beans and flours.
2. List causes of food spoilage in dry foods.
3. Explain ways to control pests.
4. Indicate ways insects and rodents carry disease; list major diseases carried by rodents and insects.

APPENDIX E

EVALUATION OF DIKTAT (Lecture Notes) - FOOD SCIENCE

The first work on the Food Science Diktats was done in 1982; they were further developed at the time of the Food Safety and Sanitation Workshop in September 1983. Further revisions and additions may be needed. Your evaluation of these Diktats is an essential step in making them valuable to you and your colleagues in other universities.

Please complete this form and return as soon as possible to:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Complete one form for each Diktat you have used.

General Information

Your name \_\_\_\_\_

University \_\_\_\_\_

Title of Diktat \_\_\_\_\_

Course(s) in which you used the Diktat:

Were Diktats made available to students? Yes \_\_\_ No \_\_\_

If yes, did students buy (pay for) Diktats? Yes \_\_\_ No \_\_\_

Evaluation

Please place an (X) in the space before each statement which is true.

1. Diktats were used to

\_\_\_ Replace former (old) lecture notes.

\_\_\_ Supplement former lecture notes.

\_\_\_ Enrich content of a course.

2. The material in the Diktat could be adapted to the course(s) I teach:

\_\_\_ Yes, very adaptable

\_\_\_ Some parts could be adapted.

\_\_\_ The material was difficult to adapt to my courses.

3. 1. level (difficulty) of the content was

\_\_\_ Suitable for students in my courses.

\_\_\_ Too Difficult (too advanced) for students.

\_\_\_ Too elementary for students in my courses.



Evaluation of Diktat (cont.)

4. The sequence of the Diktat  
\_\_\_ Seemed logical -- easy to follow  
\_\_\_ Provided prerequisite knowledge (facts) before more complex concepts were introduced.  
\_\_\_ Was not in the sequence in which I presentee lectures.
5. The material in the Diktat was  
\_\_\_ Sufficient for a one semester course.  
\_\_\_ Needed to be supplemented for a one semester course.  
\_\_\_ Was too much for a one semester course.
6. References cited in the D iktat were  
\_\_\_ Available in the University library  
\_\_\_ Available in the Department  
\_\_\_ Available in my personal collection.  
\_\_\_ Not available.
7. The content  
\_\_\_ Was up-to-date, accurate and complete.  
\_\_\_ Was up-to-date and accurate but incomplete.  
\_\_\_ Included some errors.

Comments:

Short Term, In-Country Training  
for  
Food Science and Technology  
EVALUATION OF TRAINING SESSION

Your evaluation of the training sessions will be helpful to the consultants as they continue to work with BKS-T universities. Your response is helpful in planning short-term training for other groups. Please consider each statement given below separately and be very honest in your response.

Directions: Check (X) Column A if the statement is very (completely) true.  
Column B, if the statement is somewhat true.  
Column C if the statement is not true

Add suggestions and comments in the space provided after each section.

Objectives

- |  | A | B | C |
|--|---|---|---|
| 1. The objectives of the training were clearly communicated to the participants. |   |   |   |
| 2. The stated objectives for the training are important to BKS-T universities.   |   |   |   |

Comments on the Objectives:

Content

- |   | A | B | C |
|---|---|---|---|
| 1. The content of the lectures and training sessions was related to the stated objectives.                  |   |   |   |
| 2. I learned new facts and principles about   |   |   |   |
| a. Microbiology   |   |   |   |
| b. Food additives   |   |   |   |
| c. Food poisoning   |   |   |   |
| d. Water sanitation   |   |   |   |
| e. The harvesting (or slaughtering), handling, storage, marketing and preservation of specific foods        |   |   |   |
| or  |   |   |   |
| The handling, preparation, storage and preservation of foods in the home.                                   |   |   |   |
| 3. I increased my knowledge and understanding of:   |   |   |   |
| a. References and resources available   |   |   |   |
| b. Methods of teaching and/or research  |   |   |   |
| c. Use of illustrative material   |   |   |   |
| 4. The facts and principles presented can be used in my teaching and/or research.                           |   |   |   |
| 5. Facts and principles were presented at a level I could understand -- neither too easy nor too difficult. |   |   |   |

Comments on the Content:

Procedures

1. The presentations were well organized.
2. The schedule provided an opportunity to achieve the objectives of the training.
3. There was enough variety in the presentations to make the training period interesting.
4. Field trips were well planned and contributed to the content and objectives of the training.
5. Visual aids used were effective in communicating concepts.

	A	B	C
1. The presentations were well organized.			
2. The schedule provided an opportunity to achieve the objectives of the training.			
3. There was enough variety in the presentations to make the training period interesting.			
4. Field trips were well planned and contributed to the content and objectives of the training.			
5. Visual aids used were effective in communicating concepts.			

Comments on the Procedures:

Resource Manuals

1. The work done in this training session supplemented that initiated in 1982.
2. The form (format) of the resource manuals will facilitate the use of them (help in using them)
3. The content of the resource manuals will be helpful to me in my teaching.
4. Work on the resource manuals gave us an opportunity to share course plans and ideas about teaching.

	A	B	C
1. The work done in this training session supplemented that initiated in 1982.			
2. The form (format) of the resource manuals will facilitate the use of them (help in using them)			
3. The content of the resource manuals will be helpful to me in my teaching.			
4. Work on the resource manuals gave us an opportunity to share course plans and ideas about teaching.			

Comments on Resource Manuals.

General Comments:

## APPENDIX F

### SHORT TERM OUT-OF-COUNTRY TRAINING

for

Home Economics (PKK) Staff

The following is a proposal to provide short term training for four (4) Home Economics (PKK) lecturers; two from IKIP Ujung Pandang and two from IKIP Manado. This would be a three week training outside of Indonesia which would include participation in the Asian Region Home Economics Seminar sponsored by the Japanese Society of Home Economics and the International Federation of Home Economics in Japan, September 5 through September 11, 1983. It will also include study of curricula and resource materials at the College of Home Economics, University of Philippines, Diliman, Quezon City and Malaysia Universitas Pertanian, Serdang, Selanger.

#### RATIONALE

This training contributes to the goal of the Eastern Island Agriculture Education Project of increasing the competency of the teaching staff of the BKS-T Universities. It is directly related to the goals and activities of IKIPs Manado and Ujung Pandang. It has implications for the training of personnel for non-formal education and for the participants role in the KKN program. The entire training period will provide an opportunity for the participant to make contacts with home economists in other countries which will enable them to continue to share materials and ideas.

The sessions at the Japan Seminar will focus on regional conditions with applicability to Indonesia. Participation in this seminar will be particularly helpful in developing a network with home economists within the region. The theme of the Seminar is, "Exploring Contributions of Home Economics for Improving the Quality of Family Life", with a sub-theme, "Impact of Technological Evolution on Families".

The University of Philippines has an outstanding program in Home Economics. BKS University Lecturers can gain much from conferences with the staff members there concerning curriculum and course content and in studying their laboratories.

At the Malaysia Universitas Pertanian, participants will have an opportunity to review references and research reports written in Malay language and study methods of non-formal education as carried out by the Center for Extension and Continuing Education.

#### OBJECTIVES

The specific objectives for this short term, out-of-country training are;  
A. Asian Regional Semin (As stated in Seminar Program)

1. Examine cultural changes brought about by the advancement of technology and its effect on the family.
  2. Identify basic concerns of families
  3. Become aware of the need for a comprehensive curriculum to strengthen Home Economists' contribution in community services.
- B. University of Philippines
1. Analyze curricula in Home Economics and the curriculum for preparation of teachers and extension workers; identify possible applications to IKIP Manado and Ujung Pandang.
  2. Study laboratory methods and equipment used in teaching and research.
  3. Examine text books and library materials available.
- C. Malaysia Universitas Pertanian
1. Examine references and resource reports written in Malay language which could be adapted for use in Indonesia. Explore possibility of exchanging materials.
  2. Visit Extension and Continuing Educations programs. Study teaching materials and methods used in non-formal education and the curriculum for training Extension Home Economists.

#### PROCEDURES AND SCHEDULE

September 4 - Leave Jakarta, 2000 for Tokyo; Arrive September 5, 0700

September 6 - 11 Attend all sessions of Asian Seminar in Tokyo and Osaka.

Each participant will select, for sub-group sessions, one of the following: Food and Nutrition Problems, Environmental Problems, Home and Family Life Education or Community Services and Extension.

Confer with Ms. Fitri Aini, Palembang, South Sumatra, International Federation of Home Economics contact person for Indonesia.

September 11 - Depart Tokyo for Manilla

September 12 - 15 University of Philippines.

Schedule and arrangements will be made with Dr. Aurora Corpus, Dean College of Home Economics. A visit to the campus at Los Banos may be included.

September 16 - Depart Manilla for Kuala Lumpur

September 17 - 21 Universitas Pertanian

Schedule and arrangements will be made with Home Economics personnel there. Dr. Irene Beavers, Professor of Home Economics Education, Iowa State University and Consultant at Universitas Pertanian at that time will assist with their study.

September 22 - Return to Jakarta

September 23 - Work with Margaret and/or Alberta Hill, Senior Technical Advisors, on report and summary of training. Report will be prepared

for all BKS-T Universities and to share with members of the participants' Departments.

### EVALUATION

Evaluation of the training will be based on the written report of the trainees. A tentative outline for the report is as follows:

1. Asian Region Seminar
  - 1.1 Major ideas and concepts from General Sessions
  - 1.2 Major ideas and concepts from Group Sessions
  - 1.3 Names and addresses of persons contacted.
  - 1.4 Implications for IKIP programs in Indonesia.
2. University of Philippines
  - 2.1 Curricula for Home Economics and Teacher Education
    - 2.11 Differences and similarities to IKIPs Curricula
    - 2.12 Possible application to IKIPs Curricula
  - 2.2 Laboratories
    - 2.21 Descriptions of laboratories
    - 2.22 Laboratory experiences included in Home Economics; ideas for laboratory management.
    - 2.23 Analysis of laboratory plans and equipment
  - 2.3 List of texts and references.
  - 2.4 Names and addresses of persons contacted.
3. Malaysia Universitat Pertanian
  - 3.1 Curricula for Home Economics and Extension Education
    - 3.11 Differences and similarities to IKIPs Curricula
    - 3.12 Possible application to IKIPs Curricula
  - 3.2 Extension and Continuing Education Programs
    - 3.21 General Description
    - 3.22 Methods and material used
    - 3.23 Possible application for BKS-T Universities
  - 3.3 List of texts, references and research reports
  - 3.4 Names and addresses of persons contacted.

### BUDGET

Information concerning accommodations in Philippines and Malaysia has been requested. It is possible these would be dormitory-type accommodations. Budget estimate given here includes full per diem based on approved rates for Tokyo, Osaka, Manila and Kuala Lumpur.

BUDGET

Air Transportation	\$5,928
Jakarta to Tokyo to Manila, to Kuala Lumpur and return to Jakarta	
4 participants @ \$1,482	
Bus and Train Travel in Japan	276 1/
4 participants at \$69	
Incidental travel in Philippines and Malaysia	120
4 participants @ \$30	
Registration and Fees for Seminar	364 1/
4 participants @ \$192	
Per Diem	
Tokyo - 4 participants, 3 days @\$117	1,404
Osaka - 4 participants, 3 days @ \$123	1,476
Philippines (at Manila rate)	1,440
4 participants, 5 days @ \$72	
Malaysia (at Kuala Lumpur rates)	2,856
4 participants, 6 days	
TOTAL	<u>\$13864</u> 2/

- 1/ Approximate, converted from Yen
- 2/ Assumes that participants' University will pay for transportation to Jakarta and expenses there.

See Alternative Budget, Attached

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Short term, out-of-country training budget - Attachment

ALTERNATIVE BUDGET

Air Transportation	\$5,928
Jakarta to Tokyo to Manila to Kuala Lumpur and return to Jakarta. 4 participants @1,482	
Incidental travel in Philippines and Malaysia	120
4 participants @ \$30	
Fees and other expenses paid to Seminar organizers	772 1/
Includes special meal, bus and train transportation, 2 nights at National Women's Center and Seminar report	
4 participants @ \$193	
Actual Hotel Expenses in Japan	
Keio Plaza, Tokyo, 4 participants @\$45	180 1/
for one night	
Osaka Castle, 4 participants for 3 nights	336 1/
@ \$28 per night	
Additional Expenses, Japan	920 2/
Accommodations at Universities in Philippines and Malaysia	1,980
11 days for 4 participants at an average of \$45 per day per person	
	<hr/>
TOTAL	\$10,236 3/

1/ Approximate, converted from Yen

2/ Based on information from Seminar program

3/ Assumes participants' university will pay for  
transportation to Jakarta and expenses there.

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