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RESEARCH ON INNOVATIVE NONFORMAL EDUCATION FOR RURAL WOMEN: Phase I

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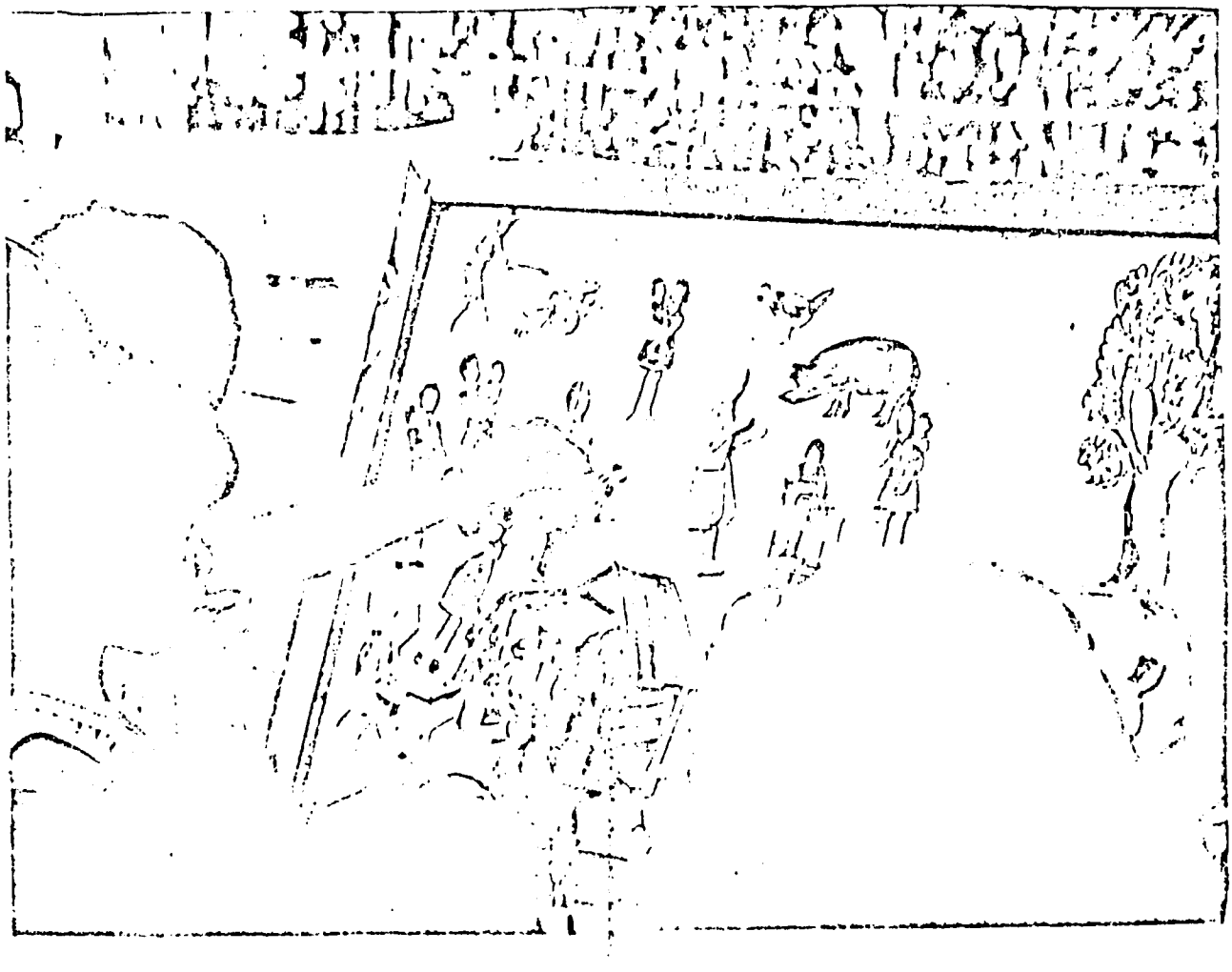

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I PROJECT BACKGROUND

From February through August 1975 World Education in cooperation with the Philippines Rural Reconstruction Movement carried out phase I of a research project with funding from the Education and Human Resources Division of the Technical Assistance Bureau of AID. The purpose of phase I was to develop a research methodology for testing innovative ways of educating rural women so as to improve their personal, family and social situations as well as to enable them to participate more effectively in the development process.

The specific objectives of phase I were to:

a) design and apply data gathering techniques to assess the education needs of rural women in three selected villages.

b) refine a set of hypotheses concerning the lag in rural women's education using the three selected villages as the testing ground.

c) develop a set of guidelines for creating teaching methodologies and materials based on the hypotheses emphasizing open and participatory educational techniques.

d) identify criteria for evaluating cognitive, attitudinal and behavioral change of rural women.

e) specify guidelines for the design of a longer term research project based on results of phase I.

II PROJECT RATIONALE

Women in the LDC's fulfill vital roles in agriculture and other aspects of the rural economy, and their values, attitudes, opinions, knowledge, and habits directly effect the quality of life of millions of families and communities.

However, a number of factors effect rural women's participation in development: The hardship of their daily life, the burden of large families, often a low status in society, lack of community recognition of their economic contribution, and insufficient access to education are among the principal obstacles. The high rate of female illiteracy in the less developed countries both follows from this situation and perpetuates it. The effects of women's ignorance on children's nutrition, health, and education are often irreparable. The loss to the national economy through under-development of this sector is only beginning to become apparent.

Efforts to educate rural women in the past have by and large concentrated in content areas such as needlework and cooking, stereotyping women's role as housewives. Furthermore, the heavy workload that rural women normally carry often prevents them from attending classes in set locales and on a rigid schedule. More flexible and informal means of educating rural women need to be evolved. Creative planning is needed to broaden the scope and content of such programs, to develop more effective educational strategies and to evaluate the effectiveness of such innovations.

To build this kind of knowledge base in support of women's programs, World Education believed that more research was needed in specific field situations, with optimum participation by in-country institutions, personnel and the learners themselves.

Thus, using three villages in the Philippines as an initial testing ground, phase I of the Innovative Nonformal Education Project for Rural Women sought to:

a) examine the problems of rural women's education;

b) identify a set of hypotheses which may be relevant in a number of cultural, political and social contexts; and

c) design a methodology for developing and evaluating a long term program based on these hypotheses in two different cultural, political and social contexts.

III SUMMARY OF PROJECT METHODOLOGY

A. Preliminary Activities

During the year preceding the project, World Education had conducted a series of interviews with directors of educational projects involving rural women. From these interviews and field visits, some basic assumptions concerning problem areas in rural women's education were identified and the hypotheses to be tested in an LDC setting were formulated.

1. If rural women's experiences, views, and ideas are directly incorporated into the curriculum and learning experiences revolve around her active participation, then the desired cognitive, attitudinal and behavioral changes are more likely to take place.

2. The inclusion of economic content (e.g., farm productivity, processing, marketing, savings, investments) in rural women's education in LDC's will increase the relevance and usefulness of education to the women's daily lives.

3. Effective techniques of education can be developed to reach rural women in LDC's who are unable or unwilling to avail themselves of classroom-based education.

At the beginning of the project, additional discussions were held with fourteen program administrators from seven countries,* and a selected literature review was carried out. (A selected bibliography of pertinent literature appears in Appendix A).

In early 1975, the Philippines Rural Reconstruction Movement was selected as the collaborating in-country agency for the project. During a preliminary visit of World Education staff, a review of educational activities for rural women in the Philippines was conducted through personal interviews with twenty national

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* Colombia, Ethiopia, Honduras, India, Kenya, Philippines, Tanzania.

directors of public and private agencies. It was found that there were few basic educational programs designed separately for rural women; most were for men and women and focused on literacy and utilized more traditional teaching methods, e.g.,lecture, drill, etc.

These programs that were oriented towards women with low educational levels tended to fall into two categories: free programs offered at family planning facilities which focused on providing information on health practices and family planning techniques, and, extension courses in sewing and home-making skills offered at schools and technical colleges, usually for a small fee.

Three programs for men and women which integrated basic education with other skill and community development activities were identified in the province of Nueva Ecija; they were run by PRRM, CERP and Sariling Sikap, Inc. Site visits to two of the programs revealed that each organization (PRRM and CERP) was integrating some non traditional teaching techniques in their programs, e.g.,group discussion, integrated curriculum, field work, etc. Representatives from all three organizations participated in this phase of the project.

In February during this period, three adjacent rural villages in the province of Nueva Ecija were selected for field testing. Selection was based on:

1. similarity in cultural, economic, and political conditions;

2. lack of successful educational interventions for adult populations over the past eight years: the director of PRRM and a researcher at the International Institute for Rural Reconstruction both cautioned that previous adult education and rural development programs, which had been successful in other villages, had failed. They characterized the villagers as apathetic, suspicious, and unreceptive to the types of self-improvement programs that had been attempted in the past.

3. accessibility to PRRM's field headquarters.

B. KAP Study

The needs assessment objective of the study required gathering data on a number of basic economic, social, and educational indices as well as some specific information on family planning and the problems faced by rural women.

The first step in gathering this information was to design and administer a KAP (knowledge-attitude-practice) survey. A total of 227 women between the ages of 15 and 40 were interviewed on a random sample basis: 63 in Barrio Nieves, 110 in Mangangnan and 54 in Castellano.

Tables summarizing combined data for the three barrios across some of the more important indices appear in Appendix B.

While there were some differences in the three barrios and the interviewee groups from each barrio, a number of similarities are also readily apparent in the accompanying statistics.

In each barrio, PRRM staff defined the highest percentage of dwellings as "temporary" (54% in Nieves; 51% in Mambangan; and 56% in Castellano). Lesser percentages were defined as "semi-permanent" (39% in Nieves; 37% in Mambangan; 35% in Castellano).

Questions on the economic and occupational status of the interviewees and their families also revealed some similarities. The families were most often classified as agricultural. Many family members worked as laborers (13%) and housewives (20%), but a significant number (25%) of family members were found to be students. Annual family income of the interviewees most often fell within a ₱ 2,000-₱ 4,000 range with the second highest income category being ₱ 2,000

and below. The national average family income is ₱ 3,736. (One U.S. dollar equals 13 Philippine pesos).

The interviewees in each barrio saw education most often as of moderate importance in their lives with a much smaller number finding it very important. Examination of the data on educational attainment of the interviewee's children shows that, by a large margin in each barrio, these children fell within the 1st-7th grade level.

The largest percentage of interviewees in each barrio reported themselves to be married (59% in Nieves; 60% in Mambangan; 63% in Castellano), with a majority having from one to six children. In Mambangan, however, 39% of the interviewees had families with six to ten children, while 35% of the interviewees in both Nieves and Castellano had families of similar proportions. When asked about their attitudes towards family planning, most of the interviewees stated that their thinking conformed with the basic family planning idea. This attitude was not totally substantiated, however, by the later surveys of workshop participants and this discrepancy will be discussed shortly. The data on reasons for agreement with the family planning concept proved to be inconclusive. In Mambangan, 63% of the interviewees agreed with the rationale of proper spacing between offspring, but in the other barrios, this was found to be of minimal importance. In Castellano, 39% of the interviewees believed that family planning would enable them to better care for their offspring but in the other barrios little

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* Philippine Almanac:Handbook of Facts, 1975.

emphasis was placed on this reason. The primary source of advice of the interviewees on family planning problems was their parents. In Mambangan, 20% of the interviewees saw pamphlets as one source of advice but in the other two barrios this medium was viewed as of negligible importance.

A short series of questions probed for the problems facing rural women. The survey revealed that a variety of economic problems was seen as most important for the rural women. The present state of the economy, financial problems, budgeting, and inflation were stressed as providing the greatest difficulty. Suggestions for solving the problems of rural women received similar economic emphasis. Two barrios merely supported the general idea of earning a living as a solution but more specific solutions were also offered. Dressmaking received some support (16% of interviewees) in Nieves, while a piggery project (18%) and backyard gardening (23%) were offered as answers in Mambangan.

Through the KAP study the project team was able to obtain general profiles of the three communities and some information about concerns of females between the ages of 15 and 40.

Although the questionnaire was pretested and modified, vague terminology (possibly due to translation difficulties) caused confusion in a few instances. In addition, sensitive questions dealing with family planning had a low response rate in one barrio—Castellano. Researchers did feel that the KAP produced the basic information needed to identify content areas in which to focus further needs assessment activity.

As part of the data gathering process, interviewers used tape recorders to obtain stories and anecdotes that the women told during the interviews. A local photographer also visited each village to photograph a diversity of situations. These materials served two purposes: they provided additional baseline information, capturing samples of the more human side of village life not possible to communicate through the interview schedule format and they also served as the raw materials which the research team used to develop sample teaching materials for training of the field teams.

C. The Field Technical Workshop and Follow-up Field Testing of Learning Experiences

While the KAP information was being gathered and compiled, the research team met with local directors of 15 government and private agencies. Thirty field-level personnel from eleven of these agencies (See Appendix C) were recruited to participate in the development and field testing of a methodology for creating learning experiences based on the hypotheses.

With WE and PRRM staff as training and resource personnel, this field staff personnel developed, field-tested, and assessed three learning experiences in each barrio during a two-week Field Technical Workshop, and a total of five additional learning experiences in two barrios after the Workshop. Gathering additional needs assessment data through individual and group discussions with the barrio women, the Workshop teams planned each learning experience based on the women's main interests, developed materials to heighten learner involvement, conducted the learning sessions in the village at a time and place determined by the barrio women, and assessed the sessions in terms of

1. degree of learner attendance,
2. degree of participation, and
3. observable or expressed change in attitude and knowledge.

The findings of the Field Technical Workshop and follow-up activities consist of process information and assessment data, drawn from the reports of the three Workshop teams. Since product and process are closely intertwined in the total approach of the Workshop, they will be summarized below for each of the Workshop team's principal activities listed below: Needs Assessment Activities, Materials Development, and

Implementation of Learning Experiences. Assessment data for the learning experiences appears separately on page 21.

I. Needs Assessment Activities

The findings of the Workshop teams in their barrio visits were obtained through observation, interviews and discussions using a variety of materials to stimulate reactions. (section 3, p.15). These findings were added to the information gathered in the baseline survey and used as a major tool to determine the design of the learning experiences and materials development.

The barrio visits added a number of dimensions to the information obtained in the KAP study. Each workshop team gathered its information using a variety of methods. The approximate total population of two of the barrios, Nieves and Castellano, was determined by examination of voter registration lists. The team in Barrio Mambangnan interviewed a number of rural women and obtained specific information on education, economic status, and the skills desired by the rural women. The other teams obtained their information by a combination of interviews, discussion, and observations. Each team discovered where and when the rural women tended to gather in their barrios; women tended to meet informally in the afternoon between three to five p.m. outside a store, in someone's yard or in one case, next to the village guardhouse. In barrios Mambangnan and Castellano, the principal problems expressed by the women concerned economic matters, chiefly, how to escape from their current poverty. In Nieves, the workshop team found economic concerns and observed the general poverty of the area but also found that early marriage and infrequent visits of health personnel were among the most popular topics among the women.

The interest in and conformity with family planning ideas shown in the baseline survey was not reflected in the results of the barrio visits. In two of the barrios almost no interest was expressed in family planning while in the third, Nieves, the workshop team found outright hostility toward family planning ideas because of previous negative experiences with family planning workers.

Using information secured from the KAP and needs assessment survey, the workshop teams designed thirteen major learning experiences; pretests and assessments of each learning experience were conducted in order to determine the immediate impact of the session as well as to improve future sessions. The following chart summarizes the topics of each session.

SUMMARY OF LEARNING EXPERIENCES BY BARRIO

LEARNING EXPERIENCES	GROUP C Castellana	GROUP A Nieves	GROUP B Mambangnan
1	Identification of signs and symptoms of pig diseases.	Decision-making concerning economic activity.	Identification and prevention of common pig diseases.
2	Prevention and Cure of common pig diseases (Learning experiences 2 and 3 combined.)	Importance of cooperation in a pig-raising project.	Measurement and Design of Dressmaking patterns.
3		Determination of Resources available and needed for pig-raising.	Budgeting
4	Selection of a good breeding sow.	How to proceed in implementing a pig-raising project.	
5	Community - Managed Economic Project Proposal Writing Class		

2. Materials Development

Materials that encouraged both physical and verbal involvement of the women were tested during the thirteen learning experiences, including: simple games, flexiflans, (Appendix D), serialized posters, taped problem dramas, the broken squares game (Appendix E) and an adaption of it to determine resources needed for beginning a pig-raising project.

Care was taken to select pre-test groups with background characteristics very similar to the experimental learning groups; pre-test groups were from the same barrios as the learning group but from different puroks*(neighborhoods) to avoid contamination.

Pre-testing of the materials revealed the need for revisions in format, design and color to clarify meaning. For example, in Nieves, the pre-test showed that the "broken squares" exercise was most effective when used with posters to relate the game to the subject of the learning experience.

In Mambangnan the first learning experience suggested to group members that the posters and taped story were not effectively conveying their intended meaning; the taped story needed to be revised slightly in order to emphasize the major theme more strongly.

The Castellano group found that some of their serialized posters were open to several different interpretations; for example, one poster was meant to depict a sick pig but during the pre-test the women thought that the pig was dead. Some of the posters were therefore eliminated and others revised.

* Barrios are made up of a varying number of puroks.

One example of the type of materials revision that occurred as a result of pre-testing is described below:

During the pre-test for the second learning experience, Workshop Team C discovered that posters alone did not readily stimulate discussion. The intended purpose of using the posters in this part of the learning was to prompt village women to describe the cures they currently were using as the starting point for determining the correct procedures for curing the diseases. But, rather than sparking reactions from the women, the posters tended to increase the role of the facilitator in directing questions.

In order to solve this problem the team revised the materials for the actual learning experience as follows:

Large posters depicting pigs with symptoms of various hog diseases were passed among the group and then placed on a large flannel board. Then cards with either pictures or words describing cures (both correct and incorrect) commonly used in the barrio (as determined in the previous needs assessment discussions) as well as correct cures not previously discussed by the women were handed out to the group. The women were invited to place the appropriate cure card under the posters depicting the various symptoms. Lively debate and laughter ensued as the women argued about which ones were correct and incorrect. After the learning group had more or less agreed on the "correct" cures, a livestock technician (who had been asked to attend by the workshop team) stepped into the group, rearranged and added cure cards to display the correct cures; he briefly discussed the reasons for using or not using various measures. The women eagerly asked questions; even after the learning session

was over some were reluctant to leave; many remained to ask additional questions of the technician. There was a notable difference in the reaction of the women in the actual learning experience and those women in the pre-test group.

3. Implementation of Learning Experiences: Summary *

Barrio Nieves

Needs assessment data indicated that lack of income was a priority concern of the women in Nieves. In purok #2 the workshop team designed a series of learning experiences to assist the group of women in identifying and accomplishing the sequence of tasks necessary to the solution of their problem. All of the learning sessions took place next to the purok guardhouse between the hours of three and five.

The first learning experience centered on decision-making about an economic activity. The major objective of this learning experience was to help the women to focus on the problem of lack of income and decide what kinds of economic activities they might engage in in order to increase their income. To help the women recall problems they identified during the needs assessment interviews, the Workshop team used flexiflans (See Appendix D) to depict the team's previous visits and played back pertinent sections of the tapes made during those visits. The tapes helped to break the ice and the women discussed the various kinds of income producing activities that interested them. With the assistance of a leader selected by the women, the learning group then voted on

* Transcripts of these experiences are available for review at WE.

economic activities which they would like to pursue; this was done through use of flexiflan scenes depicting various types of economic activities and ballots made of different colored pieces of paper. The women themselves tallied the votes by placing the colored pieces of paper on the flannel board next to the appropriate economic activity; 6 women voted for pig-raising, 4 for poultry-raising, 3 for dressmaking and 2 each for farming, bamboo-craft, and gardening. After some discussion, the women agreed they would like to learn more about pig-raising. They asked the Workshop team if they could return in two days, but at a different time, to help them learn how to start a pig-raising project.

The second learning experience focused on helping the women to understand the importance of cooperation and communication in order to work together in a pig-raising project. In addition to using flexiflans, the Workshop team introduced the broken squares game.

After the women performed the exercise, which they completed in the allotted time period (20 minutes), they discussed the exercise in general terms. The facilitator asked the women to relate the game to their daily life situation. Several women readily recalled their earlier decision to learn about pig-raising; when prompted to further express their ideas, one member suggested that perhaps through cooperation they all could get involved in a pig-raising project, particularly since no one of them had the funds to do it alone. When asked if they were interested in pursuing this idea one woman responded by asking those present to indicate if they were serious about the project. Fifteen women stood up. A discussion followed in which the group then reiterated their desire to learn more about acquiring a pig, and asked the Workshop team to return. A date and time for the third learning experience was set by the women.

The third and fourth learning experiences focused on helping the women to understand what resources are necessary to begin a pig-raising project, to identify what resources are available within the community, and finally to decide what action they would take. Serialized posters, problem dramas, the broken-squares game with drawings depicting various types of resources, and a resource person from the Bureau of Animal Husbandry were used in these two learning sessions. As a result of these sessions, the learning group in Nieves decided that the best way to proceed would be to organize themselves so that they would be eligible for the neighborhood dispersal program; they earlier had rejected the idea of trying to get a bank loan because of interest rates and bad experiences of others. To prove that they were indeed serious about pursuing the project, they elected a leader and asked the photographer present to take a polaroid picture of everyone in the group as a membership record. They agreed to hold a follow-up meeting to discuss how to proceed.

Barrio Mambangnan

Rather than focusing on one topic throughout the learning experiences conducted in Mambangnan, the Workshop team decided to develop learning experiences which reflected three problem areas that the women had identified during the needs assessment discussions.

The first experience focused on identification and prevention of diseases in pigs. A problem-drama was played to the assembled group; the story was about a woman who was engaged in pig-raising, but could not determine whether or not she was making money

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* Although funding for phase I of the project terminated after the fourth session, informal contact with PRRM indicates that the group is proceeding.

on the project. Her pigs sometimes died from diseases, yet she had never consulted a veterinarian; instead she used traditional cures which often were not successful. The story prompted discussion in the learning group. Serialized posters depicting symptoms of diseases also were displayed by the Workshop team. While reaction and discussion was lively, it sometimes strayed from the intended object of the learning sessions. This may have happened because the taped story did not sufficiently focus on just one aspect of pig-raising.

The second experience was on dressmaking; the specific objective was to acquaint the learning group with the method of designing patterns and stimulate interest in pursuing dressmaking as a means to save money. Again, a problem-drama was played; it focused on the problem of a woman who did not know the proper procedure for making a pattern; as a result, the dress she was making for an important occasion did not fit. The women discussed some of the problems of learning how to measure a pattern properly. The facilitator asked if they were interested in learning how to design a pattern which would fit properly. One village woman volunteered to demonstrate. After the women had measured and cut out a pattern, she helped another village woman do the same thing, while the other women watched. At the end of the demonstration, several participants expressed interest in taking up dressmaking but stated that they did not have enough funds to rent or buy a sewing machine.

The Workshop team decided to design the third learning experience on Budgeting; a problem drama depicting the different budgeting techniques of two families was the focus of the sessions. The men and women in the learning group carried on a lively discussion about the different ways one could budget. Interesting points concerning the importance of budgeting time and food as well as money were brought up.

Barrio Castellano

The key concern of the women in Barrio Castellano was the prevelance of disease among their pigs. The Workshop team developed a sequence of experiences focusing on identification, prevention, and cure of diseases.

The first learning session focused on identification of signs and symptoms of various diseases. Portions of a tape made during needs assessment interviews were played to help the women recall the symptoms they had discussed earlier. Posters and flannel figures also were used as aids to stimulate discussion. By the end of the session the learning group had matched the symptoms to the most prevalent diseases; they asked the Workshop team if they could return to discuss how to cure the diseases.

The second and third learning sessions focused on preventions and cures of common pig diseases. The session opened with a problem-drama; the drama reflected some of the common practices used by the women in Castellano to cure diseases: both correct and incorrect procedures were utilized in the story. Serialized posters, and "cure-cards" were used, and a livestock technician took part in the learning session. (see page 14) At the end of the third learning experience, the Castellano group expressed their interest in knowing more about how to select an appropriate breeding sow.

In the fourth learning session, the problems of maintaining and breeding various types of sows were discussed. Serialized posters and cards depicting positive and negative qualities of sows were the major materials used; a livestock technician also was present to answer questions. By the end of the session, several women indicated the types of breeding sows they would buy and the reasons for the choices. One stated that what she learned about breeding would save her money in the future.

In both Nieves and Castellano, a fifth learning experience was tested; it focused on methods of organizing a community economic project: dressmaking and tailoring. Earlier learning experiences had revealed that a group of women from adjacent puroks, one in each Barrio, were interested in developing a dressmaking project. A taped story, serialized posters, and a simplified version of the impertinent pert chart (see Appendix G) were used to help the learning group to organize the steps necessary to begin a community project. By the end of the session, the group had perted out the actions they would have to take to begin a project; they decided that those who were interested in participation would have to formulate an association.

IV SUMMARY OF RESULTS

For each learning experience conducted, data was collected on a variety of indices. The most pertinent data includes:

1. the number of participants at four time intervals;
2. total amount, frequency, and types of participation, e.g. responding to questions, volunteering information, asking questions and physically participating;
3. any examples of knowledge, attitude and behavior change either within or throughout the series of learning sessions; and
4. learner's comments.

Each workshop team had two members responsible for collecting assessment data for all pre-tests and learning experiences conducted by that team. These "assessment teams" worked with consultants to design the collection instrument used by all the groups.

Data on attendance and types of participation was collected through observation and recorded on the data collection form (see appendix F). This data was gathered by both members of the team who compared their observations at the end of each session as a cross-check.

These results are summarized on the following pages.

Table 1. - Attendance

BARRIO	LEARNING EXPERIENCES CONDUCTED	ATTENDANCE AT THE FIRST TIME PERIOD	ATTENDANCE AT THE LAST TIME PERIOD
A NIEVES	1	14	16
	2	15	24
	3	19	30
	4	13	15
B MAMBANGNAN	1	40	26
	2	34	34
	3	8	16
C CASTELLANO	1	11	14
	2&3	14	26
	4	12	15
NIEVES & CASTELLANO	5	8	10

Table 1 gives some details on the attendance record during the conduct of the learning experiences from the first time period to the last time period. The figures include women and men but not children.

Table 2. - Types of Participation

TYPE OF PARTICIPATION	BARRIO NIEVES				BARRIO CASTELLANO	
	LE 1	LE2	LE3	LE4	LE1	LE2&3
	TG=16	TG=24	TG=30	TG=15	TG=14	TG=26
Responding to questions	12	8	22	12	5	8
Volunteering information	7	9	22	10	5	5
Asking questions	5	9	10	6	1	6
Physical involvement	18	32	28	7	10	20

Table 2 summarizes the amount of each general type of participation among women only, in Barrio Nieves and Castellano in each learning experience conducted.

Table 3. - Frequency of Participation

	BARRIO NIEVES				BARRIO CASTELLANO		
No. of times women participated in each learning experience	LE1	LE2	LE3	LE4	LE1	LE2&3	LE4
0 Times	0	0	3	0	5	10	0
1-2 Times	2	6	8	10	3	7	6
3-5 Times	7	6	2	2	3	4	4
OVER 5 Times	9	10	12	3	2	4	3

Table 3 indicated the frequency of participation of women in each learning experience in Barrios Nieves and Castellano.

The learning experiences attracted, for the most part women and children. However, almost all of the learning experiences did attract men; the number ranged from three to twelve, with most attending those experiences related to pig-raising in Castellano; the presence of a male resource person may have encouraged the men to participate.

The number of women who attended varied by barrio. In Nieves the number increased from the beginning to the end of each experience and increased from the first to third experience, although dropping slightly in the fourth.

In Mambangnan a little more than half stayed through the first learning session, all stayed through the second and there was a 50% increase from the beginning to the end of the third experience, although there was a significant drop in attendance from the second to the third experience. This drop may have been due to the fact that there was a fire in progress at the neighboring purok when the learning experience began; or it could have been a reaction to the previous learning session which was very long and in which the facilitator from the Workshop team was very directive.

Castellano showed an increase in women's attendance from the 1st to the combined 2nd/3rd experience and the percentage of those who came and remained throughout the 2nd/3rd experience increased by more than half. Attendance also increased slightly during the fourth experience, although the number of people was slightly less than in the second.

One of the reasons for the slight drop in attendance between the third and fourth experiences in Castellano and Nieves may have been the time lag between these sessions; whereas the first three sessions were all held within a 10-day period, there was a three-week time lapse between the third and fourth sessions.

The lower attendance level in the fifth learning session could be attributable to time lag and/or the change in subject matter. The fifth learning experience attracted a different group of women most likely because it focused on dressmaking and tailoring whereas the earlier sessions in both barrios were related to piggery.

The women were the chief participants in the learning experiences. Participation in the learning experiences by the women in each barrio showed a generally positive direction between the first and third experiences. In Nieves, observations showed progress from little participation in the first experience to spontaneous and vocally active participation in the third and fourth experience.

In Mambangnan, spontaneous reactions from the participants existed in all experiences but the level of participation was generally lower than in the other two barrios. Researchers suspected that this result was most likely due to the directive behavior of the Workshop team facilitator. Rather than encouraging participants to react freely to each other's comments, his behavior tended to create a one-to-one dialogue between himself and each participant. Although the learning experiences in Mambangnan were designed to encourage maximum learner participation, in practice, the dominant behavior of the group facilitator prevented the designs from being carried out as conceived; therefore, the hypothesis of maximizing learner participation was implemented less effectively in Mambangnan than in the other two barrios. Figures do not appear for Mambangnan because the data collected on participation levels from two observers showed large discrepancies; it was impossible to determine which figures were accurate.

In order to record any observable change in attitude and behavior among specific women during learning sessions, the assessment team members each selected several women to observe during all of the learning experiences. They noted specific reactions by watching the women and recording comments which might indicate attitude toward the learning situation or subject matter. These recorders noted any observable changes in reactions, level of participation, and behavior over the series of learning sessions. Although clearly impressionistic, this type of soft data was collected in order to provide researchers with a sense of how individual women were reacting to the learning situations. To supplement the information, the assessment team members informally interviewed women after the sessions broke up. In addition, all sessions were recorded and transcripts of the same sessions were prepared.

Information from these sources provided researchers with a basis for inferring that a change in behavior, attitudes, and knowledge gain had occurred among participants from the first to the final learning experiences. Whereas in all three barrios the learning groups initially appeared reticent, shy and slightly suspicious (Barrio Nieves), observation records, participant interviews and the transcripts of the learning experience show a marked change in learner attitudes, both toward the Workshop teams and the learning sessions themselves.

For example, during the second and third learning experiences in Castellano, and the second, third and fourth in Nieves, women made a number of comments indicating their eagerness to continue the sessions; in each case they asked the Workshop team to return on a certain day and time to "teach" them about a particular subject.

The following are samples of some of the reactions of the women to the learning experience:

1. "We have never experienced such kind of teaching before."(Barrio Nieves)

2. "How we wish the Workshop team will come back and teach us more."(Barrio Mambangnan)

3. "We've learned a lot in just a short span of time."(Barrio Nieves)

4. "When shall we start our lessons in the care and management of pigs?"(Barrio Castellano)

5. "Now that we have learned how to select a good breeding sow, we should start saving in order to be able to buy one."(Barrio Castellano)

6. "The success of our organization is the responsibility of both the owner and the recipient of the pig."(Barrio Nieves)

In addition to providing data on reactions of the women, the transcripts and soft data collected show definite progress in awareness and knowledge gain on the part of the learning groups in Nieves and Castellano. In these barrios each learning experience was based on the progress made by the group during the preceeding session. (Section III C) Therefore, it was possible to determine if the group had gained and/or retained any knowledge from one experience to the next. For example, in Castellano, the first learning session focused on identifying the symptoms and signs of common hog diseases. At the beginning of this session, the women erroneously attributed certain symptoms to particular diseases; by the end of the session the group had discussed and correctly correlated symptoms with diseases. As requested by the women, the 2nd/3rd experience focused on preventative cures of these common hog diseases; this session began with the women in the group successfully identifying through the use of visual aids, that had been discussed three days earlier in learning

experience one, the symptoms of specific diseases. Thus the beginning activity of the second learning session indicated that the group had progressed from initially being confused about what symptoms indicated which diseases (as shown in the needs assessment discussion and transcript of the beginning of the first learning experience) to being able easily to match the symptom to the correct diseases at the beginning of the second learning experience.

A similar progression of knowledge acquisition during the four learning experiences is evident in Barrio Nieves (Section III C) as demonstrated by the movement of the group through the following self-chosen and self-developed problem-solving stages:

1. determining that lack of income was the high priority problem shared by all;
2. identifying potential income producing activities and voting on one to pursue (pig-raising);
3. identifying alternative ways and means to initiate the activity, e.g. separately or as a group through bank loans or individual savings, neighborhood dispersal projects, etc.
4. asking for additional information about the alternatives identified and deciding to organize themselves into a formal group with a chosen leader in order to be eligible for a neighborhood pig dispersal program.

Investigators believe that the progress of the learning groups in these two illustrations demonstrates the potential effectiveness of the learning approach developed from the hypothesis. However, only a long-term research program can determine the extent to which these initial positive results are valid indicators that this learning process brings about sustained positive action, attitudes, knowledge and change on the part of the learner.

Although it is not possible to document with hard data, the investigators suspect that the learning experiences contributed to increasing the self-confidence and self-image of the learners; this inference stems from the observed increase in interest and involvement of the women from the first learning session to the last. The change in amount and type of participation also can be ascertained from the tapes. Efforts will be made to document any increase in self-confidence during phase II.

Recommendations of the researchers and workshop teams that attended the final evaluation seminar at the end of the field testing are incorporated into the following section. Supplementary data which supports specific conclusions also appears in that section.

V MAJOR CONCLUSIONS, PRODUCTS, and RECOMMENDATIONS FOR FURTHER RESEARCH

The following describes the specific products resulting from phase I activity and project investigators' recommendations for follow-up research to test the utility of these tools and techniques in nonformal education programs.

A. Needs Assessment Techniques

Product:

In addition to utilizing a KAP study, the project tested out several need assessment techniques which were designed to permit the rural women to express their ideas, views, and problems about topics in small group discussions or interviews.

Rather than obtaining women's opinions on topics selected by the researchers (as is done in the KAP) research teams used materials such as the flexiflan, photographs, serialized posters, and taped stories told by the women during the KAP (see Appendix D) to stimulate discussion. The following steps outline the procedure for using the flexiflan as a needs assessment tool.

1. Flexiflans of people, building, scenery, animals, and crafts are designed in the local contexts.

2. A flannel board and flexiflan figures are placed on the ground or a table near a group of women.

3. The women are asked to tell a story using the figures. A facilitator should encourage the listeners to speak, react, discuss.

4. The stories told by arranging the figures and the reactions of others are carefully noted by observers or preferably taped.

5. The notes or tapes are analyzed to determine generative themes, problems, and interests.

6. Once some major areas of interest emerge, other materials - such as the serialized posters, photographs, or taped stories — can be used to focus discussion on a particular topic; this allows the curriculum designers to obtain more specific information about learners' views on a particular problem area.

This method for determining interests is limited only by the number and type of flexiflans available and by the imagination of the women. Unlike structured interviews, this method encourages the learners to discuss what is important to them rather than responding only to questions which the researcher thinks may be important.

Conclusions:

Phase I results seem to indicate that this needs assessment approach had significant advantages over the KAP approach.

1. It enabled researchers to identify and respond to the most immediate concerns of each particular learning group. Whereas the KAP gave a general picture of community concerns, it did not (and really cannot) reflect the priority concerns of a particular learning group or the stage of readiness of a particular group to deal with a specific problem. The detail and breadth of coverage required to obtain this type of information through a survey would require an instrument and data too cumbersome to manage.

   Researchers believe that with learning groups such as the ones in this project (e.g., low level of education and previous lack of interest in or commitment to education programs), it is crucial to begin the education process with experiences that are of immediate interest and value to the specific learning group; otherwise the drop-out rate is likely to be high and rapid.

   For example, in Barrio Nieves the KAP study results indicated that family planning was the topic of major interest to the women. Later, however, when research teams first went to the barrio, the women were somewhat hostile and very reluctant to speak to them because, as the women later said, they thought the researchers were family planning workers; their previous experiences with family

planning workers had been very negative and they did not want to discuss the subject. In this instance, had the first learning session been based on a subject of high priority identified in the KAP - family planning - it is quite possible that the women would have been discouraged and not returned to future sessions.

It may, in fact, be that family planning is an issue that concerns some of the women and that, after establishing their trust (see C of this section) and meeting some of their immediate concerns, it might be possible to bring sensitive issues such as this one into learning sessions; however, to do so at an early stage in the program most likely would place a severe handicap on the program before it even began.

2. This approach permits curriculum developers to respond quickly to expressed needs; with KAP surveys there can be as much as a 6-12 month time lapse between the time the survey is administered and the time the curriculum is designed and used in learning sessions. In that time, priority problems or concerns of the villager can change and the curriculum can be out of date before it is ever used.

3. Finally, this type of needs assessment technique flows into and can become the basis for a continually developing curriculum which is flexible, responsive, and open to change (see C of this section); the more traditional approach usually leads to developing an entire set of lessons based on major problems identified in the KAP, prior to program implementation.

Recommendations:

In phase II, it is recommended that additional types of techniques (e.g. games, role-playing) be developed and used as needs assessment tools. In order to determine the utility and efficacy of these techniques as a basis for materials development, in a long-term program, it is also recommended that in phase II of the project the KAP study should be dispensed with and the innovative techniques described be used as the sole means for gathering needs assessment information.

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* Why then did the KAP reflect a high interest? Perhaps because there was a fault in the survey itself; but more likely either the group of women interviewed in the KAP was very different from those who attended the learning sessions or the interviewees gave responses they thought the interviewers would want to hear, a not uncommon phenomenon which lowers the reliability of interview or questionnaire surveys.

B Hypotheses

Products:

As a result of the preliminary outcomes of phase I activity, the original hypotheses were re-stated to read as follows:

Education programs for rural women will be more effective in increasing women's interest and motivation to participate and in bringing about attitude change among women if:

a. learning experiences are designed to encourage maximum participation of the women in the educational process;

b. content relects the expressed interests and concerns of the learning group, including their current or potential economic activities;

c. education is taken to where women normally congregate either during leisure time or daily activities, rather than occuring in a classroom setting;

d. rural women from the barrios are trained as paraprofessionals playing an important role in needs assessment, curriculum development, and evaluation.

Conclusions

All of the learning experiences field-tested by the group (a, b, c above) were designed to incorporate the three original hypotheses to be tested. They were based on expressed interests and contained economic-related content; they took place at various locations where women were gathered and at times determined by the learning group; they revolved around materials and methods developed to maximize participation of the learners. Based on the short-term results of the learning experiences (see section IV) preliminary conclusions about the effectiveness of the techniques derived from the hypotheses were drawn.

The investigators concluded that conducting learning experiences at the location and time determined by the women (which, at the women's request, occasionally changed from one learning experience to the next because of chores that the women had to do on various days) contributed to an open, relaxed atmosphere, and increased attendance and participation.

Women who initially were reluctant to join the groups (e.g., standing behind trees or in doorways at a distance) often joined during the course of the learning session. In the case of every learning experience conducted, the number of women (and often men) increased from the beginning to the end. (see page 22). Had the sessions taken place in a classroom at a specific time, the curious initial nonjoiners (men and women) would not have been able to see what was happening and probably would have stayed away. Walking into a building or joining a class is a commitment. Investigators believed that many who initially were not ready to commit themselves (even in these seemingly small ways) would have been lost to the program had it not taken place in an open and relaxed atmosphere. However, as it was, it was easier for the people to drift in and out (although there were few of the latter) unnoticed. In this situation there was no initial commitment involved for the reticent, and hence it is likely that a higher percentage of people became involved.

Although it is not possible to determine the exact extent to which economic-related content contributed to positive learner response, investigators can conclude that the inclusion of content based on the women's expressed concerns (in this case, usually economic in nature) contributed significantly to the success of the learning experiences.

This conclusion is based on the fact that:

a. needs assessment information revealed that lack of money was a major concern to the women (see page 11);

b. over the field testing period, two learning groups made clear progress in moving toward solving their self-identified economic problems (see page 27);

c. there was a high retention rate within each session and over several sessions (see page 22);

d. learners' opinions, derived from transcripts of the learning sessions and informal interviews, specifically refer to the value of the knowledge gained and the practices learned which will lead to the increase in the family income (see page 27).

In concluding that self-identified content was a key factor in retaining and motivating learner participation, investigators also agreed that the process through which this content was identified and conveyed back to the women was as critical to the success of the learning session as was the use of the relevant content itself. The methods utilized focused on maximizing learner participation in all aspects of the educational process, e.g., needs assessment techniques, curriculum design and implementation of the learning sessions themselves. Learner reactions suggest that using innovative materials which encouraged active involvement reflected value in learner's opinions and views, created an atmosphere of trust, and were enjoyable and non-threatening, contributing to high retention rates in all three groups. Both attendance and level of participation increased from the first to third learning experience in learning groups in Nieves and Castellano. Although retention rate in the learning experience remained the same, attendance in the learning group in Mambangnan dropped from the second to the third learning experience; this may be attributable either to the fact that the facilitator was very directive in the

second learning experience, discouraging participation from the women or that a calamity in a nearby purok distracted potential participants.

As part of the process of maximizing participation of the rural women in the educational program, two women from each barrio were selected and trained with the workshop teams; these women who were called front-liners, took part in every stage of field testing, including needs assessment, curriculum design, learning experience implementation and evaluation. The original purpose for including front-liners was to facilitate communication between each workshop team and the women of their village. However, during the field testing, the front-liners' actual role was more than liaison personnel; they made valuable contributions in designing the learning experiences as well as providing additional feedback on reactions of the rural women to the learning sessions. Based on these observations, investigators believed that selected women from the barrio could become the core facilitators of the program during phase II.

Recommendations

In order to determine the long-term impact and utility of the methodologies developed from the hypotheses and tested during phase I, the investigators recommend during a two-year research program that:

a. learning activities be focused on maximizing learner input at all stages of the educational process, including needs assessment, curriculum design and implementation, and evaluation. Additional materials and nondirective instructional methods which encourage learner involvement and respond progressively to the learning groups concerns would be created and tested;

b. content be based on the self-identified concerns of the learning group; curriculum be developed from one learning session to the next as learner interests expand and shift rather than an entire curriculum being designed at

the beginning of the program; the effects of incorporating economic-related subject matter be monitored carefully in follow-up research, with particular attention being paid to changes in practice and in income;

c. there be flexibility in location and timing of learning sessions, as determined by the learners;

d. local women be selected and trained as paraprofessionals to participate in the entire curriculum development, implementation, and evaluation process.

C. Guidelines for Developing Innovative Teaching Methods and Materials

Product:

The process, developed and tested during phase I, for designing and implementing learning experiences using participatory techniques was named the Self-Actualizing Method.* Based on the hypotheses described above in the previous section (IV B), the Self-Actualizing Method was developed on the principle that people will grow, learn, and change their behavior more readily if that growth is developed from within the learner, not imposed from without by the teacher. Rather than expecting people to change their behavior because outside influences deem new behavior as better or more appropriate, the Self-Actualizing Method encourages learners to identify their own problems and areas of interest, explore ways of solving these problems and to become aware and confident of their abilities to effect change in their own lives. In order to begin this process, it is necessary to immediately establish a trusting relationship with the learners.

* This method was named and developed during phase I under the guidance of Dr. Lyra Srinivasan, who served as chief consultant to the project. She is currently preparing a monograph for World Education; in the monograph she lays out the basic assumptions and premises of the methodology as well as the description of how to implement it.

The basic components of this method are:

1. training selected village women as paraprofessionals to assist in the entire curriculum development and implementation process.

2. designing and implementing needs assessment procedures which maximize involvement of the learning group and encourage the participants to identify their immediate concerns and to determine curriculum content for each educational experience which responds to those concerns.

3. using non-directive instructional methods (e.g., questioning strategies, problem posing) which encourage learning groups to take over responsibility for the discussion and diminish the role for the facilitator during the session.

4. designing innovative materials, e.g., games, flexiflans, posters, problem dramas, tapes, photographs taken by learners, puppets, and to involve learners, to put them at ease and stimulate discussion.

5. developing of sequential learning experiences based on the learning groups' continuous identification of their expanding interests and needs.

The following steps for implementing the Self-Actualizing Approach were developed and utilized by the workshop teams during the two-month field testing period in phase I. They are as follows:

1. identification of: potential learning groups, time and places where village women can meet for initial needs assessment work through visits to village.

2. design and implementation of needs assessment activities through informal interviews, observation, and discussion (utilizing techniques described in A of section V).

3. analysis of transcripts/notes of initial needs assessment to determine major themes, problems, ideas and concerns expressed by the women. Selection of most prominent themes for explaination during second needs assessment activity.

4. implementation of final needs assessment with learning groups to determine the specific topic and focus the group is interested in discussion for the first learning session; decision of time and location by learning group.

5. analysis of second needs assessment session and specification of cognitive, affective and behavioral objectives for the learning experience.

6. design procedure and methods to be used; development of materials with the assistance of a local artist.

7. pre-test learning experience in the target village at a different location with different learners; notation of problem areas, misconceptions or confusion caused by materials, etc. (note: pre-testing of materials and methods may not be necessary after the curriculum developers have enough experience with a variety of methods and materials to determine potential problem areas. Pre-testing may only be necessary when techniques or materials new to the particular target group are used.)

8. assessment of pre-test and modification in procedure of learning experiences and materials as necessary.

9. implementation of learning experiences with target learning group and subsequent development of topic for next learning experience with learning groups. (taping of learning experience is useful)

10. assessment and analysis of learning experience, particularly in terms of materials, facilitators' role and learners' role and response.

11. development of second learning experience, taking into careful account the reactions of learning groups to procedures, materials, and content of the preceding session(s).

Conclusions:

Experience during phase I proved that this procedure for designing and implementing learning experiences was,at least over a two-month period , a feasible one. Investigators believe that it can be successfully utilized over a long period, particularly if the facilitators are trained through the same process by which they are expected to teach. An important part of this training process is the use of self-awareness, group dynamics, and perception exercises, as well as techniques to encourage creativity in materials development.

In phase I, Workshop teams were successfully able to develop and field test learning experiences based on the Self-Actualizing Method after only one week of intensive training.* Investigators suspect that one reason team members were able

*Limited copies of a detailed description of the training process are available from World Education.