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EVALUATION OF NON-FORMAL EDUCATION

A Paper By

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NOTE

This paper was presented to an institute composed primarily of formal educators whose institutions were involved in some way or were proposing to be involved in non-formal education activities. The paper opened the third phase of the institute during which the participants examined their experiences of the previous two weeks observing various non-formal education activities and discussed proposals to be carried back to their own countries.

EVALUATION OF NON-FORMAL EDUCATION

The amount of resources that AID has to work with gets smaller and smaller each year. As the magnitude of the problems in the developing world does not diminish, it becomes necessary for us to narrow the scope of our activities. Therefore, the Technical Assistance Bureau of AID, with the help of the U.S. academic community and third world scholars and practitioners, identified and examined the key problem areas in education in the developing world. Four were selected on which the efforts of the Education and Human Resources office are concentrated. These four key problem areas are, (1) educational technology, (2) finance and analysis of education activities, (3) relating higher education to development needs, and (4) non-formal education. Shortly thereafter, our congress, to whom we are accountable and who allocates our funds, gave us general guidelines for our overall efforts as an agency. These guidelines directed us to concentrate on the poor majority. In the developing world, this translates into the rural poor - who are primarily agriculturalists - and the urban dispossessed - who are primarily unemployed. We were told to concentrate our efforts on programs that attack the problem of equity, both from the standpoint of the distribution of the benefits of development and the equitable distribution of the opportunity to participate in development activities. We were also directed to give less assistance in the form of large capital transfers and more in the form of technical assistance.

The activities of my office in non-formal education center on sponsoring research, mobilizing resources to respond to developing country requests for assistance, and developing methodologies and materials for non-formal education. We are particularly concentrating on those aspects of non-formal education that support rural transformation and generally improve the quality of rural life (however that may be defined in individual countries), and also on those

non-formal education activities that attempt to provide learning opportunities for hard to reach segments of a population.

I have described those aspects of non-formal education that interest my office in terms of "objectives." The program format variation is enormous. The general area of your interest at this institute is not defined in terms of objectives. You are concerned with that classification of programs that are associated in some way with institutions of higher education. By omission, I assume you are interested in these programs, whatever their objectives may be. Though we define our areas of interest differently they overlap.

During the next three days you will learn from each other how vast the scope and differences are between non-formal education programs. Herein lies our problem: regardless of what aspect of non-formal we discuss - objectives, delivery modes, clientele, content, etc. - non-formal education as presently defined is a concept too vast to deal with in the abstract. Only when we become fairly specific can we make significant comments. Having said that, I will end up dealing generally with the concept several times throughout this paper.

I am going to raise three questions concerning the evaluation of NFE activities, (1) why should we be particularly concerned about evaluating NFE activities at this point and time, (2) what are some of the questions we can reasonably expect evaluations of NFE activities to answer for us, and (3) what are some of the particular problems faced in trying to evaluate NFE activities. I'll also very briefly describe three examples of NFE activities - one initially had little evaluation at all - a second uses a tight classical experimental design and the third falls somewhere in the middle.

It is not a very useful expenditure of time to consider the question of whether or not we should evaluate. We all make decisions, after conscious or unconscious consideration of alternatives, even where sometimes the alternative is a void. These alternatives are determined to be more or less desirable by some form of evaluation. To illustrate how pervasive the acts of evaluation are I need only point to the rationale for this institute as presented in the program. The rationale presents six purposes for the institute. The first purpose begins, "to examine" - the second begins, "to investigate" - the other four all describe purposes in terms of evaluation - to assess, to analyze, to survey, and so forth. We all make decisions, and before making decisions we all evaluate. The issue is not whether, but how well.

At the present time we have all the usual compelling reasons for carrying out careful evaluations of the non-formal education activities we undertake. We need to determine the impact of our programs on the participants, learn how the implementation of the activities can be improved, and we need to know how the outcomes of the NFE programs interact with other elements in the environment. There is an additional reason why we particularly need careful evaluations of non-formal education activities at this time. The swelling of interest in non-formal education that began in the early 70's was in large part based on negative considerations...the formal school system was not or could not do certain things - therefore, the non-formal system must be able to. This only slightly exaggerates the position taken then, and in some cases the position persists. It is now 1975. In the light of time, more measured looks are being taken. Hard questions are being asked...Is non-formal education really cheaper? Cheaper at what?? Is non-formal education more effective in providing skill training? For what things is non-formal education more appropriate than formal education? In what ways can it best compliment formal education?

How is non-formal education more effective at promoting economic and social development if indeed it is at all?? The list goes on. If non-formal education is not to become just another fad that bloomed ... held attention for a time and then dropped from view, these questions and others must be answered. This is particularly important in the developing world where resources are scarce and competition for funds is fierce. I was in one country last year where non-formal education people were ecstatic ... the next year they were to receive 2.3% of the total education budget. This was peanuts but they were happy because this was up from almost zero, and indeed 2.3% is a fairly high figure throughout the developing world. However, the amount will go down to zero again if they cannot convince the allocators of resources of the value of their programs - particularly in relation to other programs also demanding these same scarce resources.

I do not want to foster a false dichotomy between formal and non-formal education. They are each aspects of the same National Learning System. They relate to each other in many, many ways, only some of which we understand well. The fact remains, however, that whatever resources are given to non-formal education can not be given to formal education. There is a competition for funds within the national budget and within the total allocation for education. We should not be surprised as there is also competition for funds between higher education, secondary education, and elementary education. In the institutions represented by most of the participants here, decisions will be made to allocate resources to the regular formal aspects of your program or to the non-formal aspects of your program. The resources can not be spent in both places ... competition exists ... decisions for allocation hopefully will be made on the basis of evaluations of program success. Because non-formal education is new

it will hold the burden of proof.

The type of "proof", so to speak, that can be provided will be determined by the answer to the second point, "What are some of the questions we can reasonably expect evaluations of NFE activities to answer for us??" We can reasonably expect them to tell us the things evaluations of formal education can tell us. They can tell us about the participants - what they learned; how their attitudes and values were modified; what skills they learned. But additional questions are being asked of non-formal education programs. How was the participant's behavior modified? For how long did the behavior modification persist? What was the effect of the behavior modification on others in the environment? How was the quality of their lives affected? To put this in specific terms we can use the example of a program in cooperative education and some of the questions might become, "What segments of the rural population participated?" "The poorest??" "The medium poor or the not so poor?" "Did they join a cooperative?" "Do they participate effectively?" "How long did they stay members?" "What was the effect upon their wives?" "Did farm production increase?", etc. In short, in addition to being concerned with what was learned while in the program, we must be concerned with the effects of what he learned after the program was finished (please note that we are not simply posing questions about the education income connection).

Evaluations can tell us about the NFE activity itself and give us guidance so we can modify and improve ... so called formative evaluations, or internal efficiency considerations if you prefer the vocabulary of the economist. We must add, however, that it is important that care be taken to use yardsticks appropriate to the nature of the non-formal education activity, and the participants.

To over simplify there are two broad questions our evaluations must help answer. They are - "Why this activity rather than some other", and when an activity has been decided upon, "how can it be made to function better". Again, to over simplify, to answer these two questions we must look at the educational activity at three different levels, (1) at the level of the participant, (2) at the level of the activity itself, or the program level, and (3) at the level of the interaction of the activity's outcome with the larger societal forces. (Some of the specific questions that might be asked are included in the outlines used by Coombs, MSU and others in examining NFE activities.)

Some of the problems encountered in evaluating NFE activities are enumerated in length in several monographs and books by Borus, Hardin, Zymelman, Swett, Hunter, Harbison and others. Most are written from the perspective of the economist and more than half deal solely with urban programs. The particular problem for us as educators is that we often look at only the education questions. Most of us admit that we don't know exactly how to obtain the added information to help answer the question of why this activity rather than some other. What that admission mainly says is that we are on an equal footing with most others. Regardless, we must begin to look at the needs for evaluating all education activities from the perspective of the allocator of resources.

Let me just enumerate briefly some of the problems in evaluating NFE programs - and these simply rise from the nature of NFE programs and their objectives:

1. The participants are often a fluid group, not stable or constant. A program may have several age groups at once, both

sexes and membership often varies widely over the life of the activity.

2. The relationship between the student and teacher, if indeed those two terms are appropriate, is not that found in the standard formal education interchange.
3. The program may or may not have an identifiable beginning and end.
4. Some of the more successful NFE programs have no initially specified content against which one can check for achievement. It varies from event to event.
5. The program may have such a close symbiotic relationship with other activities that it will be impossible to separate the effects of one from those of the other.
6. The costs of NFE programs are difficult to isolate and to attribute to a particular source. They don't all come from an "education budget."
7. The benefits may or may not be evident and if identifiable may be impossible to quantify.
8. Most difficult of all is to find ways to humor our penchant to do comparative analysis or comparative evaluations, whether the programs are comparable or not.

And finally, before I leave this point, I must point out what I like to call the left-hind wheel syndrome. Imagine for a minute that you are a farmer and have a tractor that won't run. The engine is good, you have plenty of gas and oil, your land isn't the best but it will grow corn and support a few cattle. However, your production is zero because the left hind wheel of the tractor is missing, and you can't work the ground. After a couple of years of waiting you get the ear of the people in the capital and they send you your left hind wheel. The tractor runs, you work your land, and production makes a dramatic leap. Word gets back to the capital that the supply of left hind wheels causes a dramatic rise in production. Soon we see a massive program to supply all the nation's farmers with left hind wheels to bring the agricultural production up. Sounds ridiculous but one doesn't have to search the development literature too long before you will find similar conclusions drawn from research. I was in a meeting recently where it was pointed out that in a certain country the adoption of agricultural innovations followed the recent provision of credit. It was, therefore, recommended that the education, agricultural extension, and mass media aspects of the rural development program be minimized and more emphasis placed on the provision of credit. This completely disregards the other inputs that had been made and were just waiting for the final left wheel that would make the vehicle operable. In evaluating the effects of NFE programs on the development efforts of a nation or a community we must take care that we don't judge a program to be a failure because, although it made its input, others were not present to allow the expected progress to occur, or conversely that we do not ascribe too much of the credit for success to the left hind wheel.

Let me tell you very briefly about three NFE programs that are presently

struggling with the problem of evaluation. I will sketch in just enough about the programs so my remarks about their evaluation makes some sense. The first I wish to speak of has been in operation for about three years. The program was designed around a particular approach to rural peasants which utilized facilitators to introduce and assist educational activities. The facilitator needed only to be literate. There were no "educational" requirements. They were chosen from the villages in which they were to work. Training, which was minimal to say the least - in the order of two or three weeks - centered on techniques in organizing learning groups and on the use of very specific types of simulation and skill games. The games were developed jointly by citizens of the country and a U. S. university. The objectives were consciousness raising, number and literacy skill acquisition or improvement and other rural skills such as cooperative education and marketing. At the beginning the instructional devices were purposely left in a tentative state so the facilitator and the villagers could participate in their perfection.

Evaluations of the project during the first year were based upon observation and verbal reports by the facilitators themselves. The activity attracted a lot of attention both from within the country and internationally. What had been learned from the minimal initial evaluations was that:

1. Minimally trained and largely unpaid facilitators could organize and assist learning activities.
2. In most cases the people liked to participate in the type of activities used and continued to do so for some time.

3. From observations, some things seemed to be happening. People were working together. In two cases roads were being built, other village improvements were being made. Some groups had sought assistance from higher officials and had persisted until help had been given.

The people who were interested in the possibilities of replicating the experiment were asking asking additional questions:

1. How many and what types of people participated - it was not known for sure.
2. What did they really learn in terms of knowledge and skills.
3. What were the effects on individuals of the simulation and role playing games directed toward consciousness raising? How did it change behavior?
4. What changes took place in the community?
5. How much did the original activity cost?
6. How much would it cost to duplicate the activity?, etc., etc.

Because the above questions could not be answered, two approaches were taken to find more information. The group that sponsored the experiment began to more closely observe the activity and tried to answer some of the questions dealing with processes. It is very difficult to reconstruct things after the fact, but some useful knowledge is being gained by this technique. But because no measurements were made at the outset to serve as a bench mark, it was impossible to answer some questions. For example, it could not be

ascertained how much was learned because nobody had any idea what the participants knew when the program started. It was decided, therefore, to ask a second university to replicate the program in the same country in such a way to answer some of the questions being raised. The replication is following a tight experimental design - pre-test - treatment - another test - second treatment - and post test - all this over a span of three months. This experiment will tell us what people learn when the program is conducted as a tight controlled experiment. Unfortunately, the replication, in order to meet the demands of the rigorous experimental design, could not duplicate the spontaneous community involvement, the commitment of the facilitators, nor the flexibility of the original activity. What we will learn is something about the effectiveness of the materials themselves. Unfortunately, they were not the prime thrust of the original activity. The facilitator approach was central and we will have few measures of its effectiveness.

The second NFE activity is an experimental program of information dissemination and education for rural adults. Its objective is to determine the effectiveness and relative costs of different mixes of communications media used to supplement the work of extension agents in influencing change in agricultural practices and production. Given an illiterate, subsistence, rural population, this experimental program is based on the use of modern technology to offer a variety of communications systems to stimulate the interest of the rural agriculturalists and increase their production. It is designed to test a communications system using modern technology to multiply the effectiveness of extensionists and teachers who are currently limited largely to person-to-person contact.

Consistent with its experimental nature, the program consists of two equally important parts: (1) a carefully controlled non-formal educational program which initially does not require literacy, and (2) a rigorous evaluation of that program in relation to its objectives and underlying hypotheses. For experimental purposes, program content is concentrated on production and marketing of basic crops. However, results are expected to have much broader application in the continuing development of viable rural education programs that respond directly and effectively to a broad range of local needs. A prior feasibility study was conducted in 1972 which encompassed cultural, demographic, physiographic and agricultural conditions and constraints; government capability to contribute expertise and resources to the program; and determination of realistic criteria for selection of experimental and control areas.

The same levels of availability to farmers of needed services and on-going programs such as extension is maintained insofar as possible in both experimental and control areas. No treatment is applied in the control area. In the experimental areas, differential treatments are being imposed which represent varying degrees of intensity in message delivery. Radio will cover the entire experimental area. It will constitute the sole means for message delivery in one area. Two other experimental areas will receive, in addition to radio, increasingly intensive means for message delivery. Treatment I consists of radio alone, Treatment 2 consists of radio (as in treatment one) plus local monitors with limited audio-visual materials (minimum of two monitors):

1. Farm radio forums will be used where a concentration of farmers exists;

2. The basic teaching aid provided to monitors will be audio-cassettes. In addition, simple flip charts and handout materials will be supplied.

Treatment 3 consists of radio (as in Treatment 1) plus local monitors with limited audio-visual materials (as in Treatment 2) plus two agricultural technicians with diversified package of audio-visual materials and crop demonstrations. This classic experimental design has four cells that can be compared, one to the other. This experiment will tell us what happens when we add radio to areas where there is nothing and what happens when we add para-professionals to areas serviced by radio. Unfortunately, it won't tell us what happens when we add a radio input to areas where there are already para-professionals as the para-professional cell without radio is missing. This is an extremely expensive program and one of the most sophisticated I know of, even though it omits two important cells from the experimental design. One must ask if the cost is justified? We won't know until we examine the results. At that time a cost benefit analysis of the study itself may show that the information was not worth the cost.

In the first study the methodology was the core of the program. In the second the content was set and the methodology was varied. In the third, neither have been specified. The program is based on a process that is designed to allow local determination of program content and methodological approaches and to decentralize administrative control and implementation responsibility. You can well imagine the difficulty one would have in obtaining approval for an education program where you can't specify the content, the educational approaches to be used, nor the nature of the participants. However, approval to proceed was obtained and the process set

in motion. The first step was to organize and train a central staff that could provide training, evaluation services and produce many forms of instructional materials. This group then held workshops with the local extension staffs of agriculture, health, public works and the adult educators at the district level. The first step toward evaluation was taken immediately after these workshops. It consisted of conducting a base line survey in the project areas. The survey was conducted, scored, and interpreted by the local staffs, not by the central staff. The survey provided a bench mark - an assessment of the starting situation. It also provided some sign posts as to the appropriate content and methods for the education aspects of the program. The results were discussed with the people living in the project area who shed the light of reality on the findings and in turn became involved in the whole process. In operation the program will be built to respond to locally identified needs. The central staff will perform a service function, providing additional training and develop instructional materials and design programs to meet locally specific needs.

Evaluation here is a continuous process of surveying to identify needs and checking after program implementation to see if they were filled. The program itself will consist of a series of discrete inputs to meet a succession of identified problems. Each of these will be evaluated for short-term effects. It is also anticipated that the base line survey will be duplicated, with additions, each year. Over the years a profile of the area will develop, one that can be used to check progress.

The picture that will emerge will be two-tiered, discrete snapshots at individual learning activities and an overall picture provided by the repeated base lines. It is interesting that at the AID and ministerial level

this project is called non-formal education. At the central support unit level it is called an adult education project. At the district level, where responsibility for implementation rests, it is called an integrated rural development project and at the village level the people call it simply a development project.

In closing it is important to emphasize that the evaluation mechanism we design should be consistent with the scope and complexity of the program we are evaluating. We can easily spend more time and money on evaluation than it took for the original project. We run more danger of being put in the converse position, where we have spent large amounts of money on a program, and don't know what effect it had.

I hope that the questions I've raised and the illustrations given will give you a point of departure as you begin your last three days of the institute. You will be formulating and discussing specific action plans. I would hope that one aspect of each plan will be the specification of the appropriate evaluation criteria....the conditions or indicators you would propose, which if present, would indicate success in your program and also a consideration of the question of the "how" of the evaluation you proposed.