

CHAPTER 4

Research and Evaluation

In studying the conference papers I was particularly pleased to find an emphasis on the democratization of research. This advocates the removal of a distinction between the researcher and those who are researched, on the basis that each has much to learn from the other and that perhaps it is those who are being researched who hold within themselves the keys to proper and meaningful solutions. In like manner, the democratization of research is apparent in the fact that interest in the problems of development is no longer incidental to the well-funded research institutes of the North, but of central concern to the rapidly developing research institutes of the South.

K. S. Murshid (Commonwealth Assistant Secretary-General): Address to the Conference

Introduction

It is now widely accepted that non-formal education needs both research and evaluation. Indeed, if programmes are to be effective then there must be a research and evaluation element built into any programme. The very complexity of non formal education programmes—socially, economically and educationally—makes decision making almost impossible unless that decision making is based on adequate knowledge of what is needed. It is no longer possible to depend merely on the commitment and the experience of the practitioners to cope with the day-to-day functioning of such programmes. Programme planners, organizers, implementers and learners need to be guided by the feedback of operational information provided by research so that policy decisions, as well as planning and implementation decisions are assisted by research findings. Moreover, research is necessary to enable non-formal education workers and learners to make careful and critical inquiries into the situation which confronts them, to identify phenomena and relationships, and more generally, to seek undertakings which can guide actions towards their intended objectives¹.

One immediate problem lies in the nature of research itself and the modes of research and evaluation which have long been current in the formal educational system. What is known as 'traditional' or 'fundamental' research relies heavily on quantitative methods and a pre-determined 'research design', often conceived in isolation both from the participants and from the educators. Similarly in evaluation, there is a concentration on evaluation models which use behavioural objectives as the centre of the approach. Evaluation, as derived from curriculum theory and practice has, until recently, been almost exclusively concerned with 'intended learning outcomes'. It has been assumed that evaluation equals measurement and that the only measurement possible is whether or not pre-specified objectives have been achieved; this will be returned to below.

What it is most important to be clear about is that quantitative methods of the traditional kind are but one of the ways of approaching research and evaluation. And, although they can be valuable, they are often the most difficult to understand, especially by laymen.

It is possible to distinguish three main types of research which are of relevance to non-formal programmes; these are traditional research, action research and participatory or 'anthropocentric' research.

Traditional or Fundamental Research

This consists of surveys, studies concerned with particular pieces of knowledge, attitudes or practices (KAP) and other recognised social science research, either based on one or other of the social science disciplines (e.g. sociology or psychology) or of an interdisciplinary character. The latter is more common where a practical outcome to advise planners is desired (e.g. the 'Evaluation of the 1973 Mass Health Education Campaign in Tanzania').²

In traditional research the topic is usually determined by the researcher or his institution (often a university) and the researchers themselves are usually independent of the operational programme. Methodology emphasizes rigour in design (scientific objectivity is sought) and there is much reliance on questionnaires and statistical analysis. The original results are often written in difficult academic language, though there is a recent trend towards two versions of published results: one for an academic audience and one for the enlightenment of policy makers.³ Unless this is done there is either no feedback into the operational system or that feedback is unduly delayed. Much of the early research in non-formal education was of this traditional kind.

Overviews and surveys have done much to stimulate an interest in non-formal education and to raise critical issues of a practical, economic and political nature. While the work of Philip Coombs, Manzoor Ahmed and Roy Prosser are perhaps the best known,

Sheffield and Diejomaoh were the first to compile and classify the varieties of programmes and raise a number of critical issues in Africa.⁴ In the United States, Michigan State University⁵ and the University of Massachusetts⁶ have worked on some experiences in Commonwealth nations.

One of the important secondary effects of the UNESCO/UNDP literacy programmes, and the proliferation of national programmes which resulted, was the stimulation of research into the factors which were important to success in achieving literacy. The International Institute for Adult Literacy Methods has played the leading role in cataloguing and disseminating information about this ongoing research.⁷ UNESCO itself has produced an overall evaluation of their ten-year programme which reviewed some research and evaluation.⁸ The International Council for Adult Education, in co-operation with the International Development Research Centre, has compiled a study of research findings from many national literacy programmes.⁹

The research on and evaluation of the use of radio and TV in various non-formal education settings has expanded quite rapidly in the past few years. As noted above, here has been evaluation of the mass campaigns in Tanzania⁸ and research and evaluation of similar campaigns in Botswana.¹¹ In the UK studies are available on the effect of media in the literacy scheme. The use of TV through satellites has been studied in depth in India.¹² General surveys on the use of radio in educational programmes in several Commonwealth countries have been done by the specialists from the University of Manchester¹³ and the International Extension College based in the United Kingdom has studied a variety of experiences in Mauritius, Ghana, Botswana, Tanzania and Lesotho.¹⁴

As several Conference members pointed out, traditional research does have continuing importance in non-formal education. Quantitative and qualitative methods need to be seen as complementary efforts. For example, while it would be interesting to know how the acquisition of literacy has affected people's lives, it is also important to know how many people have become literate.

However, the danger with quantitative research is sometimes its preoccupation with numbers to the neglect of humanistic aspects; however, there can also be a qualitative dimension to data collected through quantitative methods. A non-formal education programme should have a mix; a blend of qualitative and quantitative research.

While there is need for qualitative research at the field level, the need for quantitative research is probably greater at the macro-level. At the national level, consideration for provision, continuation or discontinuation of funds is guided by statistics aggregated from various projects. It is the common experience of many countries that such

statistics are unreliable. Adequate measures may have to be taken to ensure reliability of the quantitative data that affect policy decisions. In some countries, such as India, there are plans to set up a management information system for collecting minimal but necessary data to help the planners and the administrators at the national level to monitor the progress of various programmes.

Quantitative research, for example in literacy programmes, is necessary for setting norms for size of class, reasons for drop-outs, or hours of instruction. At present, these crucial questions are often based on arbitrary knowledge. One suggested area for further work in quantitative research is the establishment of levels of literacy through language-specific standardized tests. Nevertheless, while there is a continuing need for the collection and analysis of quantitative data in the 'traditional' way, there are also dangers in this approach.

The evaluation of the Tanzanian mass health campaign (Mtu ni Afya) referred to above provides one illustration. The Mtu ni Afya programme was a mass campaign using radio, press, print materials and 75,000 study groups. It aimed to increase awareness of what could be done about five preventable diseases (malaria, tuberculosis, dysentery, hookworm, bilharzia) and was a rare combination of multi-media teaching and politically supported consciousness raising. There were three objectives:

- (a) To increase participants' awareness and encourage group actions regarding measures which groups and individuals can take to bring about their own better health.
- (b) To provide information about the symptoms and prevention of specific diseases.
- (c) To encourage the maintenance of newly acquired reading skills by providing suitable written follow-up materials to those who have participated in the National Literacy Campaign.¹⁵

Previous experience with smaller radio learning campaigns led to the belief that a larger campaign could be used effectively to mobilize large groups of people and stimulate their learning in particular directions. In the event, an enrolment of over two million people exceeded all expectations and there were serious organizational and teaching problems as a result. However, a serious attempt was made to collect data for evaluation purposes and in particular to find out (a) the degree of attendance and participation, including the socio-economic composition of the participants, (b) to answer the question 'did the training message get through?', and (c) to measure changes in learning.

Evidence for the latter was collected mainly by finding out how certain activities had increased from before the campaign started to

the immediate post-campaign period. Fourteen indicators were used including such things as water treatment, using preventive tablets against malaria, digging rubbish pits, digging wells and building latrines.

Although the coverage of the evaluation study was very small, all the indicators showed significant changes in behaviour and in some cases the improvements were dramatic. As the report indicates: 'In some parts of the country the building of latrines took on truly monumental proportions. In Dodoma district reports showed that every house in the district had its own latrine!'

It would be tempting to assume that success as measured by these indicators was a measure of the success of the radio learning campaign as a teaching exercise. However, the danger of jumping to that particular conclusion is that in this as in other quantitative evaluation studies, especially those undertaken outside formal classroom settings, there are many other hidden or not so hidden variables which have to be taken into account. For example, the 100% provision of latrines in Dodoma district is likely to have been influenced at least as much by the massive political support given to the *activity* as from the campaign itself. 'In June during the beginning of the Mtu ni Afya campaign, all the district Tanu government officials met and agreed to what was called the 'Bihawana Resolution'. The items discussed at the meeting were the development strategies and targets for the district to achieve by various deadlines. One of the agreements was that in line with Mtu ni Afya, all people in the district should try and build a latrine by 9 December 1973 if they did not already have one... In places where latrines had been a rarity, a somewhat eccentric custom, one saw literally thousands of latrines under construction.'¹⁶ In other words, the political will to action may have been more important than the health education programmes. Unfortunately, this kind of evaluation does not really give a measure of the relative importance of these two aspects.

Yusuf Kassam¹⁷ makes the same kind of criticism of much literacy evaluation:

The impact of literacy has been evaluated by investigating and measuring mostly behavioural changes related to socio-economic development. The invisible, the innermost, the more personal and qualitative effects of literacy on the people have been ignored. Such a narrow focus in literacy evaluation has been the outcome of determining what constitutes development in purely economic and technological terms. This in turn has lead us to view and design literacy 'as an overwhelmingly technical solution to problems that are only partly technical'.¹⁸

Partly connected with the technical conception of literacy, evaluation of the impact of literacy on development has tended to rely too heavily on quantitative research methods. Such methods have invariably resulted in over-

simplifying and distorting social reality by ignoring the dynamics and complexities of the human context and the intersubjective world. Quantitative methods are often accompanied by elaborate statistical analysis for the purpose of achieving the sacred goal of scientific precision. Although the use of statistics is in some instances necessary and useful, in almost all cases of the investigation and analysis of a human and social phenomenon, alone, the statistical approach serves to silence the human voice and strangle the human context and its end-product is either a mere skeleton or a silhouette of social reality.

The use of quantitative methods can show and count the trees but they often prevent us from seeing the forest. The qualitative data in social science research in general are, by and large, overlooked and sometimes even rejected outright because they are claimed to be subjective and impressionistic. Yet, as Myrdal has analysed, the so-called 'scientific objectivity' in orthodox social science research has proved to be a myth.¹⁹ The conventional social science research methodology has even devised certain techniques of neatly transforming qualitative data into quantitative data (a flesh and blood removing exercise, as it were). To quote UNESCO's assessment of the EWLP again, 'single-minded preoccupation with even more sophisticated quantification at least sometimes blinded EWLP evaluators to simple truths that were in plain view'.²⁰ In the same vein but with reference to social science research methodology as a whole, Kathleen Rockhill has argued that, 'as a science of research has developed around quantitative measure, we have sacrificed our understanding of reality to methodological rigor'.²¹

In order to illustrate the major weaknesses in literacy evaluation as outlined above, UNESCO's EWLP makes an excellent case from which concrete examples can be drawn.

In the EWLP, the socio-economic impact of literacy was evaluated by devising a long list of indicators for testing and measuring changes in the new literates' behaviour. The changes were measured with the help of interview schedules and observation checklists and the information obtained with these instruments was statistically analysed.

The various indicators of change were grouped under three main behavioural categories: insertion into the milieu, mastery of the milieu, and transformation of the milieu. The heading 'insertion into the milieu' consisted of indicators designed to measure changes in areas such as interest in further education, management of personal finances, exposure to mass media, the seeking out of technical advice, use of the three R's and participation in formal organizations. Under 'mastery of the milieu', the indicators of change were related to behaviour at work, knowledge of modern technical practices, adoption of modern practices, and conservation and reproduction of the labour force. The indicators of change in the third behavioural category of 'transformation of the milieu' were concerned with the means of production, the volume of production, cash income, income in kind and consumption of durable goods.

Irrespective of the favourable or unfavourable results obtained by EWLP through this type of evaluation, one can raise a number of fundamental questions against the adequacy and even validity of such an evaluation design. First, no attempt was made to look at the more personal and qualitative

changes in the lives of the new literates—in their thinking, their feelings, their perception about themselves and their environment. The emphasis was put on measuring the quantitative changes and the areas of change were pre-determined and selected by the evaluators. If it were deemed important to identify the quantitative changes—and to a certain extent the importance of quantitative changes is not totally denied—could not that be done by making the new literates themselves assess and interpret the quantitative changes?

Secondly, all the indicators selected were unavoidably stamped by the values and standards cherished by the planners and evaluators. For example, with reference to one of the areas of behavioural change, the UNESCO assessment of the EWLP had this comment to make: 'The use of "consumption of durable goods" as a criterion of "transformation of the milieu" was, to say the least, a curious projection on to poor nations of a consumer-oriented system peculiar to certain highly industrialized societies. In one EWLP country where per capita annual GNP is less than \$200 this "consumption" criterion was broken down into indicators that included safety razors and wrist watches, relatively luxurious articles of individual consumption'.²²

The indicators used to measure changes with respect to 'mastery of the milieu' focused on the essentially technical and economic aspects of mastering the milieu. The UNESCO assessment report again raised very legitimate questions: 'In acquiring this kind of mastery of the milieu, to what extent has the new literate become dependent on which external socio-economic process and forces? Has literacy enabled the new literate to know and understand these processes and forces? To come to grips with them? To have a voice in controlling them? What implications has the new literate's accession to mastery of the milieu for the fate of his or her less favoured neighbours and compatriots?'²³

The UNESCO assessment report concludes its discussion on the evaluation methods used in its EWLP projects by admitting that the kind of evaluation design that was used 'could only reveal the short-term and most mechanistic socio-economic effects of the world programme'.²⁴ No other conclusion could have been more appropriate and accurate.

A study which attempts to redress the balance by shifting away the emphasis from evaluating the quantitative socio-economic effects of literacy to illuminating the more personal and qualitative impact of literacy on the development of the people, is included as one of the appendices to this chapter.

Action Research and the Feedback System

'Action Research' has been variously defined. In all cases it differs from the traditional kind by a very close interaction between researcher and operational programme—an interaction which is designed to offset and improve that programme *as it proceeds*. One definition gives action research as 'systematic study, incorporated in an operational programme, the results of which are fed back directly and immediately to the operational staff to help them to improve the effectiveness of their programmes'.²⁵ Another definition takes this

process further and speaks of an alternative role for research and evaluation trying to emerge. This alternative role 'opens up possibilities by presenting the range of effects from any change and bringing forward the attitudes of otherwise unrepresented groups... Set against the grand claims for field tested social policy, this may seem small return for the blood and sweat spent on action-research, but it could lead to more rational and more complex decision making...' ²⁶

This latter definition, with its emphasis on 'bringing forward the attitudes of otherwise unrepresented groups' is much more akin to the participatory research referred to below.

Action research as a feedback system is described by C. Garforth and D. Warr: ²⁷

The University of Reading Agricultural Extension and Rural Development Centre (AERDC), with the support of the United Kingdom Ministry of Overseas Development, has been co-operating with governments in a number of countries to incorporate action research into non-formal education and rural development and particularly with the production of educational media.

A Workshop on Action Research and the Production of Communication Media was held in Udaipur, India in September 1973. This was jointly planned by the Farm Information Unit of the Ministry of Agriculture, and the University of Reading. The workshop brought together fifty-four communicators from all regions of India and made a valuable contribution to the development of theory and methodology...

Evaluation and Action Research Units or sections (EAR Units) have been established within the Extension Aids Branch of the Ministry of Agriculture and Natural Resources in Malawi, the Agricultural Information Service in Botswana and recently on a more modest scale, within the Provincial Literature Bureau in Bo, Sierra Leone (with its concomitant adult literacy programme). Similar projects are now under discussion with the Ministries of Agriculture in Kenya and Nepal...

As applied to the production of educational media, action research could be described as 'communication research' since it is concerned to help communicators to improve their communication. However it differs from most traditional communication research, which is more concerned with testing hypotheses, verifying previous research and adding to general knowledge of human communication. There is, of course, no implication, in drawing these distinctions, that 'action research' is superior to 'fundamental research'; both are needed in the field of communication and should be complementary.

A part of the function of the EAR Units is 'evaluation', but action research, as EAR Units apply it, is both wider and narrower than evaluation as usually understood. It is wider in that they have the task of obtaining objective information from and about the population (their needs, problems, interests, knowledge, levels of literacy, attitudes, practices, etc.) which is a prerequisite of effective communication. For this purpose use has been made of KAP studies to discover existing knowledge, attitudes and practices in regard to a specific topic or innovation on which the media production staff are working.

This type of 'topic study' or content research to discover what the population knows, does and thinks before telling them what the technologists and communicators want them to know, do and think, is not in the usual sense evaluation, though it might be regarded as evaluating or validating the message before embodying it in media for immediate feedback. Pre-testing the effectiveness of draft media which is another important function of the EAR Units, is of course another form of evaluation. This said, once the quality of the media is improved by feedback beyond the need of continual pre-testing, the EAR Units may eventually turn to the task of 'summative' evaluation.

Why then was it decided to incorporate the EAR Units into the media production system rather than into the broader non-formal education, extension, or training systems or even into the development planning and management system? In the first place, the media production system is where the need is most obvious. Communication through media is long-distance, delayed communication, lacking the direct feedback of face-to-face communication. Indeed much money and effort is being expended throughout the world in communicating with rural people through various media, from radio broadcasts to simple pamphlets, with little knowledge of whether the messages are being received and understood let alone acted upon. What little fundamental research has been done indicates that in many cases they are not. Media producers have been somewhat cynically likened to the deaf and blind communicating with the dumb. Their communication is generally one-way and top-down. The EAR Units aim to provide the essential information and feedback which makes their communication two-way. Finally, the media production system is the point at which messages become crystallized, encoded, processed and packaged into media. It is therefore at this point that the wisdom and experience of the rural population can almost efficiently be married with the technology of the specialists into acceptable and appropriate development messages.

Action research in this sense is participatory research, in that the EAR Units are engaged in systematic listening to the rural population, attempting to elicit their knowledge, interests, needs and preferences, as well as their reactions to the development messages formulated by technologists. The technique of KAP study described in this document makes use of group discussion and individual interviews to test the acceptability and appropriateness of innovations as perceived by the rural people, for whose benefit they are intended. As the case studies indicate, popular reactions to innovations, fed back by the EARUs to the specialists who proposed them, have in several cases caused the specialists to think again. Action research is thus seen as a means not only of testing the effectiveness of media communication but also of transforming it into a two-way process, bringing about a creative synthesis of modern technology with traditional experience and treating the rural population as active participants in communication, teaching and learning rather than as passive 'target audiences'.

Case Study: Action Research in Communication, Malawi

Action research is now being applied in the production of media for non-formal education in Malawi. In 1972 an Evaluation and Action Research Unit

(EARU) was established to function as part of Extension Aids Branch (which produces films, radio programmes, etc. for Malawi's agricultural extension and rural development programmes. Extension Aids Branch was asked by the Forest Officer of the Lilongwe Land Development Scheme to produce media for a campaign to encourage farmers in a project area to supplement dwindling forest resources by planting their own trees. The first stage after this request had been officially approved was to call a meeting with the forestry specialists to discuss the topic in greater detail. The meeting, which was chaired by the Head of Extension Aids Branch, was attended by the media section leaders, a representative of the requesting agency (the Land Development Scheme) and three topic specialists including a forester from the project's field staff. Two members of the EARU were also in attendance. At this meeting the background to the request was outlined and the objectives were discussed in more detail. Fast-growing exotic trees, already tried and proved in the project area and approved by appropriate levels of management, were to be introduced in individual or communal woodlots. The target audience consisted of all farmers and their families in the project area who were not already growing trees.

Since the requesting agency believed that most people were already aware of the wood shortage, it was thought that the campaign should concentrate mainly on providing the information farmers needed to plant the recommended species. The project had already established nurseries from which seedlings could be obtained at subsidized prices. It was decided that the campaign should commence after the start of the next rainy season.

EARU then opened a 'topic file' in which all relevant details of the campaign were recorded for the benefit of the media producers. Thus the file starts with details of the requesting agency's application followed by a summary of the minutes from the first and subsequent meetings with the topic specialists and a survey of literature relating to tree growing in the project area.

Also contained in the topic file are summaries of the findings of two field visits organized by EARU in which an editor, a photographer, an artist, a film producer and a radio script writer, together with a topic specialist, visited two farmers in the project area who had already planted trees on their land. We asked these men what had led them to plant trees, what methods of planting and care they had used, what benefits had accrued and what problems they had had to face. It transpired that both farmers had forseen the impending problems of timber shortage some years before and that this foresight was now earning them substantial income from timber sales.

Amongst many other questions, we asked how one farmer had managed to protect his young trees from livestock. He explained how the major problem had been with goats and that he had fenced the trees with thorn branches and sisal but had still had to keep a vigilant guard on his woodlot. The problem was really only completely solved when a neighbour shifted his goats away from the area.

The visiting team made field notes and sketches, took photographs, and tape recorded our discussions with the farmers. This material provided useful documentary records of the visits. (Notes and photo contact prints were placed on the topic file).

On reflection we should have liked to have included in our field visits one or two farmers who had smaller enterprises and had only recently tried planting trees. We felt that the target audience might find such examples more convincing and that the problems of planting trees would be fresher in these farmers' minds. However, the visits provided a very valuable opportunity for the media producers to gather first-hand information and to see the topic through the eyes of individual farmers.

We conducted our study of knowledge, attitudes and practice in two stages. First we held discussion groups in three different areas of the project. We wanted each discussion group to represent a cross-section of local interests and since the project had already fostered the establishment of Village Planning Committees which represented farmers, women, local leaders, a teacher, a church elder and a local politician, we were able to make use of these committees for our purpose. Only one member of EARU attended each group discussion together with a local extension officer who introduced him. The aim was to establish as informal an atmosphere as possible in which the group members could raise problems and openly discuss their feelings concerning forest resources.

A number of interesting points emerged from these discussions. We learned, for instance, that several indigenous types of trees are thought by some to have advantages over the two recommended species, and that farmers who belong to a village woodlot scheme may also find it advisable to grow their own trees. Our analysis of the discussion group findings gave us a better understanding of how a number of key people in the target audience saw the topic.

In order to deepen this understanding and to provide more detailed and generalizable information about the target audience, we then conducted a series of individual interviews with a random sample of some 250 heads of households.

This survey yielded a large amount of information concerning, for instance, the respondents' awareness of the wood shortage problem and how they obtained firewood and construction timber. We found that our target audience consisted of about two in every three farmers who, while mostly aware of the increasingly urgent need to plant trees, did not necessarily feel they could solve the problem themselves. A significant number of respondents did not realize that only a small amount of land can provide sufficient timber for a family's needs and that a woodlot can begin to make a return after only three to four years. Many farmers were not aware that seedlings are provided nearby at highly subsidized prices.

The field work for this study took eleven days to complete. During the analysis we were able to make use of a computer to print tables of data and to make certain statistical comparisons. We now feel that there is little to be gained by using the computer in this type of action research. Apart from the expense involved, the need for special skills such as data punching and the dependence on terminal facilities, we found the system surprisingly inflexible. In many cases the questions we asked in our interviews were genuinely open ones and the responses could not be predicted and pre-coded. Such responses had to be analysed by hand, yet to exclude them from the study would have resulted in the loss of some of the most interesting information.

We have since experimented with a simple punched card system which has

proved very promising. Information is recorded on A4 sized cards in the field and then transferred, back in the office, by hand-punching the coded data into the edges of the same cards. The cards can then be sorted by 'needle', making both the counting and cross-correlation of responses a simple and rapid mechanical operation.

The KAP study analysis took longer than we would have liked, mainly because of our inefficient use of the computer, and it was almost three weeks before we had completed the work and written up a summary of the findings together with our conclusions and suggestions. In subsequent studies we have succeeded in reducing the time, an important point, since undue delays could effect the whole media production process when schedules are tight, and this would obviously be counter-productive.

In the KAP Study Report, we summarized the information which would help the media producers to empathize effectively with their target audience. We confirmed, for instance, that nearly everyone was aware of the wood shortage problem, but that few farmers realized that they themselves could effect a solution. We described the gaps in knowledge which the campaign would have to fill (e.g. where to get seedlings, at what spacing to plant them, how to protect young trees). We identified the widely encountered attitudes (e.g. to the recommended species, to village woodlot schemes, to the goat problem) which the campaign would have to change to achieve its objectives. We reported on the education and (later) literacy levels of the target audience and its probable implications for message comprehension.

This report was circulated to the media producers and a planning committee meeting was called. At this meeting the EARU summarized the work done on the topic and presented the results to the media producers. The committee then drew up a production schedule which entailed confirming the media and messages to be used, appointing a production team, deciding on the timing of the campaign, and establishing deadlines. A three-phase, multi-media campaign was planned using a series of posters, leaflets, puppet shows and films to be supported by the project's own field extension staff.

In retrospect we believe more time should have been taken over this crucial stage. We had written up our findings throughout the topic research stage in the topic file and this had been circulated at intervals to the media producers. We had also duplicated copies of the overall summary, conclusions and suggestions and distributed these to all concerned. However, we could have allowed more time for the producers to assimilate and discuss these results, and this might have led to better use being made of them.

To date, pre-tests have been carried out on a poster and a puppet show. For the poster pre-test we sent draft copies to the project headquarters and asked for them to be distributed through the normal channels. Two weeks later we selected local extension officers, found out where the posters had been displayed, and visited a number of randomly selected villages at or near these display points. Villagers were then selected at random and interviewed to find out whether they had seen the poster, how much of its message content they could remember, and then (by showing the respondent a hand-held copy of the poster) which parts if any were incorrectly understood and why this might be.

Our first finding was that relatively few of the respondents had seen the posters displayed in their area. This raised a number of questions about

distribution and display which were fed back to the project staff who are now considering the possibility of substituting smaller, more cheaply produced hand-outs distributed through the extension service to selected households. We also found that the pictures used in the poster were much more effective in conveying its messages than the words and that one picture in particular, a line drawing, had significantly more impact on our test audience than the two photographs accompanying it. We were able to point out detailed aspects of all three pictures which were not clearly understood or de-coded and to suggest ways of improving them.

This information, based on a sample of 141 respondents from different parts of the project area, was summarized, placed on the topic file and discussed in a meeting of the media producers responsible for designing and printing the poster. Revision of the pre-test version had not, at the time of writing, been started.

The puppet show pre-test required a different approach. The plays are performed from the back of a specially equipped landrover. The script is recorded and then played back through the vehicle's loud speaker system, while an operator matches the puppets' movements to the recorded sound. The draft script was therefore recorded in the normal way and the show was performed in a number of randomly selected villages. An observation schedule was used to record audience reactions to the different parts of the play during its performance and a randomly selected sample of the audience was interviewed afterwards.

We found that most people enjoyed the show and realized that its main theme was that more farmers should plant their own trees. However, some of the more detailed messages (for example, where farmers could obtain information and advice on tree growing) were not getting across to a significant proportion of the test audience. This could be improved by greater emphasis of the points concerned—especially by linking them more intimately with the play's characters and plot which the audiences had appreciated. Our observation schedules also indicated that there were some signs of inattention and boredom during the longer speeches and we suggested breaking up the dialogue into shorter segments and enlivening the play where possible with action and humour.

The script writer, puppet operator, and field assistant (who introduces the plays in each village) were very receptive to our suggestions, and parts of the original version were completely changed in response to the action research findings. Informal reports from the field suggest that the revised play was a success and enjoyed a long run.

Not all our feedback has been this well received however, and as the woodlot campaign continues (with further media being pre-tested as they become available) and as we work on more projects, our main concern is to improve our service to the media producers. This is no easy matter. From the media producers' point of view the EARU's presence can appear to be a mixed blessing. With a heavy work-load geared to producing material for regular media commitments, there is little time available to absorb the large amounts of feedback. Most producers now appreciate the need for information about their target audiences. There remains, however, a reluctance by some to accept that a few days of concentrated fieldwork and statistical manipulation can

really be a useful and reliable substitute for a seasoned communicator's experience and intuition.

As the media producers themselves know only too well, adoption of innovations is rarely a rapid process and we are not discouraged that EARU's services are not as yet being used to the fullest extent. The signs are that the situation is improving steadily with each new media production project. Recently the media producers agreed that a member of the EARU should be appointed to each production team so that he can contribute during the actual drafting and revising of the media for a given topic. This EARU member has at his finger-tips the results of the topic research which he can raise at appropriate times during the production process. He can also find out quickly if further information about the topic or target audiences is needed, and can work closely with the other members of the production team in designing pre-tests of drafted media. This innovation should go a long way towards ensuring both that the EARU provides relevant information and that the media producers make the best use of it.

Time is always scarce in action research geared to media production, and this is an important methodological constraint. The samples on which we base our findings may have to be smaller and more severely stratified than would be permitted in basic long-term research projects, and 'call-backs' to absent respondents are not always possible. Within these limitations however, we conduct our research as rigorously as possible and are well aware that our own credibility with the media producers depends on recognizing the element of bias in our results and keeping it to an absolute minimum.

The collection of data poses three main questions: Are we looking for the right information? Are we wording our questions precisely enough to obtain this information? and Are we correctly recording genuine answers from our respondents?

As we gain experience we are able to deal more adequately with the first question. Certainly the use of discussion groups to provide guidelines for preparing questionnaires and interview schedules has been a great help. In the future we hope also to use more informal interviews with farmers and field extension staff to help us to ensure that our KAP Study interview questions are relevant. Working closely with the media producers during the planning stages of a KAP study or pre-test is of course essential and we hope to get increasing help from this partnership as the producers discover by experience the types of information most useful to them.

The precise wording of questions for interviews is, we have found, much more difficult than it might seem. Even an apparently straightforward question like 'How much land do you farm?' can be beset by complex issues relating to land ownership, cultural practices, family structure and the respondents' concept of area and how it can be measured. The criteria for a 'good' question are demanding and often incompatible. It is no easy task to frame a question so that it is clear, unambiguous, unthreatening, and will yield accurate and useful information in an easily recorded form. We spend considerable time on this and we also build into the interview schedules provision for feedback which helps us to identify where questions have given some difficulty and which questioning strategies are the most suitable.

Having decided on our exact wording, we translate the questions into the

national African language, Chichewa. Here again there is room for imprecision, and we take the precaution of recruiting colleagues to translate the questions back into English so that we can ensure that the meanings are not drastically changed. The final Chichewa versions are printed on the interview schedules, and interviewers are instructed to read out the questions exactly as they have been written.

The accuracy of a respondent's answers can never be guaranteed even if the questions have been correctly understood. There is a tendency, arising from the very best motives of politeness and respect, for respondents to give answers which reflect a desire to please the questioner more than a concern for accuracy. This problem can be alleviated by taking care when planning the types of questions in an interview and the way in which they are to be asked. We also take the trouble to approach the respondents through the correct channels and to explain the purpose of our research before interviewing begins.

The accuracy with which responses are recorded, and hence the reliability of our action research, depends ultimately on the skill of each interviewer. Our team of six interviewers started with two years' secondary school education but no interviewing experience. We therefore organized a full-time induction course followed by supervised practical work before launching them on any major action research studies. Each study is preceded by a briefing session in which we explain the background and aims of the exercise. We then go through each question and how its responses should be recorded. Post-mortems are held after the study, and since the interviewers help in the initial processing and tabulation of the field data they are able to learn at first hand the consequences of inaccurate fieldwork.

Participatory or Anthropocentric Research

Budd Hall begins his paper²⁸ with a quotation which illustrates one side of the situation:

Here I stand, my name is Jowett
There's no knowledge but I know it.
I am the Master of this college
And what I don't know isn't knowledge*

He continues:

There are of course different trends which might have been identified. The trend towards democratization has been chosen for detailed examination because of its particular importance to those whose primary concern is the means by which non-formal education can better serve the needs of the poor and exploited majority. It represents an important force for increasing the chance that research will serve those whom it is intended to serve. It should be noted that the identification of a trend does not imply that the majority of research reflects this tendency, but some positive tendencies are visible.

We are all too aware of the volumes of research in all fields, non-formal education included, which serve no purpose at all except the professional

*Attributed to Professor B. Jowett, former Master of Balliol.

interest of the researchers. We are also aware of many cases when research is done by various institutions in order to take decisions for people who are not allowed to make decisions about their own lives. Our record as researchers is not a proud one. It is important that analysis and creativity in seeking solutions be centred amongst those who need it most.

If research is more democratic, both in the way it is done and as regards the people with whom interaction occurs, it is likely that there will be better links between policy and practice and between research and action. By having more involvement of those people who experience on a day-to-day basis the reality of the problem concerned, it is more likely that the research will reflect that reality. In addition much of our understanding about the formation of knowledge suggests that it is only through the interaction of theory and practice that truth in the more general sense is discovered.²⁹

The idea of participatory research links closely with trends towards popular participation in programme planning mentioned in Chapter 3 (page 82); indeed, the one merges into the other. Both are attempts to 'democratize' non-formal education at all stages from planning to evaluation. Such democratization involves a belief that unschooled villagers may often themselves hold the answer to problems. Budd Hall writes persuasively about this trend towards democratization:

In terms of the volume of research, the numbers of persons engaged in research, and funds expended on research, the balance is still tipped heavily towards the richer nations and the international agencies. There is, however, a quite general agreement that research really should be done by persons actually living and working in the countries where the education is taking place. The continuing delay in turning this task over completely is often said to be due to lack of appropriately trained local researchers. Through the institutional push of the organizations like the Commonwealth Foundation and the Commonwealth Secretariat with their emphasis on 'TCDC' (Technical Co-operation amongst Developing Countries), the International Development Research Centre in Canada, and SAREC (Swedish Research Agency in Developing Countries) and in response to the political arguments in Third World countries, a growing emphasis has been placed on financial support to Third World researchers and research institutions.

Related to, but lagging somewhat farther behind the question of the location of research, is the question of who actually does the work. The first stage in the democratization of research is to shift it to the place in question. The second stage is having someone from that country in control of the work. There is a general agreement and a visible tendency towards consolidating this second stage. More and more research in non-formal education is being done by the men and women in the country concerned.

The need for evaluation of results in the various literacy efforts associated with the UNESCO/UNDP literacy programme and the many national efforts which have developed at the same time, have meant that many persons who did not have formal training in research or evaluation were recruited to work in research and evaluation units. In most cases it has been found that, after some experience, these untrained individuals have proved to be perfectly

satisfactory. In some cases these persons have proved to be much better than their colleagues with formal qualifications, especially in terms of working with local people or explaining why a certain set of statistics has turned up.

Another way in which untrained individuals have gained experience and in a few places permanent status as researchers has been through the recruitment and training of the research assistant. It has been a common practice for years in most Third World countries for expatriate researchers to make use of local research assistants to do the actual interviewing, as the expatriates do not usually have the language necessary to actually talk with local people. As anyone will tell you who has worked either as a research assistant or with one, these people very often have a better idea about the research results than the formal researchers.

Participatory research and related approaches, such as action research and militant research, have emphasized the importance of involving those persons whom the research is intended to benefit in the research process itself, from the identification of the problem to the analysis and interpretation of the results.

Examples of this approach can be found in several of the non-formal education experiences in Commonwealth countries such as Botswana (evaluation of a co-operative weaving project); Kenya (village socio-economic analysis as the basis for literacy programmes); Tanzania (analysis of grain storage problems for construction of storage silos, evaluation of literacy programmes, analysis of music in strengthening and transforming culture); Canada (analysis of water usage and disposal—community involvement and health issues in an isolated Indian community in Northern Ontario, development of curriculum for English teaching in the workplace, analysis of housing problems in a working-class residential neighbourhood), England (evaluation of the effects of media in the English literacy campaign, analysis of learning needs in an urban working class housing estate); and India (planning education for poor industrial workers in New Delhi, education of literacy programmes in Udaipur, development of women's clubs in Madras).

Perhaps one of the most dramatic shifts in research is the realization that research methods need not be limited to the paper and pencil styles that are most common. The involvement of non-literate populations in analysis has led to the application of a wide variety of other methods for group or collective analysis. Some of the methods which are now being used include (a) drawings—either drawn or interpreted collectively (or both); (b) still photographs—used similarly to drawings as codifications for in-depth analysis; (c) people's theatre—when the community itself analyses structural relationships and portrays them in dramatic form; (d) song—collectively written or analysed; (e) community meetings/dialogues; (f) development of community self portraits; and (g) videotape recordings. The focus on methodological aspects is growing rapidly. This does not, of course, invalidate methods which we have traditionally been using in research but it has both pushed us to re-examine our methods for collective analysis and opened up the possibility for using a large number of methods which previously would not have been considered possible.

While it is quite difficult to discuss this point in abstract, it is fair to say that in general a research process which is truly democratic will take longer than the

quick one-off surveys with which we are more familiar. It takes time to organize meetings, to explain objectives to different groups, discuss interim findings, develop the analysis and discuss subsequent action. The balance of time spent in the village or with the people compared to time spent in an office is altered very much. This has obvious implications for language, for the type of person hired to do the work, for costs and for the necessity of integrating the research process into other ongoing activities and actions. The counter arguments of course are that an effective process is worth the time taken and that in the long run the time taken may even be less because the research process combines an educational and an action phase.

This is, of course, one of the great strengths of participatory research. It is not a remote or abstract process but an integral part of learning in non-formal education. Distinctions between research and learning—and between both of these and action—are deliberately blurred.

Three characteristics are usually ascribed to participatory research; it is at the same time an *approach* to social investigation, an *educational* process and a means of taking *action*. This combination of characteristics has caused some difficulties in the academic world where reality has been divided into separate disciplines and fields of work. For, as Budd Hall says: 'When research involves a group of people in a common analysis and search for meaning it is the same as learning. There is no problem in the workplace or the community where artificial separations have little meaning, but it does present some difficulties for both researchers and administrators who are trying to find where this kind of work fits into the official structure. In one case, valuable participatory research programmes have been put aside because the two administrative offices concerned could not decide how to fund the work. The research agency said that what was being proposed was not research and so it could not support the work. The educational agency said it was not education, so they could not support it either. To the people concerned it didn't matter what it was called, but they were still delayed.'

The Political Implications of Participatory Approaches

To some researchers, 'democratization' and 'liberation' are equated with an overtly political role for the researcher; only then, it is argued, can the researcher identify with a given community and encourage the people to action. Whether or not one accepts this view, it is clear that much necessary research will have political implications—the mere premise that non-formal education is designed mainly to help the poor ensures that this is so.

As Budd Hall points out,³⁰ there are areas of knowledge which are beyond the grasp of ordinary villagers unless brought to them by the educator or other outside person. For example, 'if the cost of fertilizer is controlled by transnational corporations outside the village in some

other country, then any analysis which involves fertilizer costs and usages will need to have some information about the ownership and price policies of the external producers and the relationship of the external producers to national or local suppliers'.

Budd Hall goes on to argue that:

The analysis of local problems must be linked to larger structural issues and the total analysis shared with those at the local level. In this way both the overall analysis is improved and the knowledge becomes a product which is jointly owned and produced.

Concepts of social class and the relationships of various classes to the dominant mode of production are central to the process of understanding the effects of various educational programmes and the place which varying programmes hold within the overall socio-economic structure. While this concept has not played a prominent role in non-formal education research to date, our concern which for the rights of the poor is making the political-economic viewpoint more common. If democracy implies involving the classes which have been excluded, then a class framework of analysis is useful.

More sophisticated and detailed work in the understanding of community class structures is needed. In an era when community participation is urged in every action and policy, we need to know more about the class structures within villages. We need to know more about the ways in which rich peasants maintain control and about ways to engage those in the village who are not as well off. How can non-formal education stimulate action in the village? It is not enough to say simply that the community should participate in the research process. How is it possible to assure that the research process serves those who need it most?

For every researcher in such communities there is a need to understand the constraints and the limitations of the socio-political environment within which the research activity is taking place. In the democratic process of research the identification of the researcher with the disadvantaged implies a conflict with the existing power structure. A critical issue for the researcher is to determine the kind of participation that is possible and the extent of it. Ideally, the demand for the democratic form of research should arise from within the community itself, for it is the community that is best aware of the freedom of choice that is available within the prevailing socio-political framework.

As the report of the Delhi Conference says:

The democratic researcher has to understand the constraints and limitations of the socio-political environment in which he/she works. The identification of the researcher with the disadvantaged may imply conflict with the existing power structure. In such cases the researcher must have a clear understanding of the kind of participation he/she can encourage, and the political implications. Ideally, the demand for democratic research should come from the community itself, as it is the community that has the best understanding of its freedom of choice within the prevailing socio-political framework.

From a professional viewpoint the democratic researcher typically works in a social system that believes research is value free and neutral. But every researcher has his/her own convictions that influence his/her approach to research. Thus, one of the challenges he/she has to cope with is to create a new professional approach that acknowledges that research is not a neutral activity.

Wherever possible research workers should be recruited from the local community and trained in special skills. A frequently expressed concern that these workers may use their skills to the disadvantage of the people with whom they are working can be allayed by building in the community an organizational structure that protects it against undue influence.

Communication of Research Findings

The problem of *using* the results of research has affected all areas of education in recent years. The reputation of research reports as dull, abstruse and difficult to read has meant on many occasions that they have remained largely unread and therefore of negligible value. Clearly this must not be allowed to happen in non-formal education.

In examining this issue of communication, the report of the Delhi Conference notes that the beneficiaries of research and evaluation are most frequently:

institutions rather than the people 'researched'. One reason for this is the practical and financial difficulty of disseminating research results. Another is language (translation) difficulties. A third is the traditional researcher's view that research results are for personal professional advancement, or for satisfying funding agencies that something has been done, or for meeting the needs of governments or institutions rather than those of the 'researched'.

Certain kinds of research results (e.g. academic and macroquantitative studies undertaken by universities or government institutions) are usually not appropriate for dissemination at grass-roots level though there is sometimes a case for distilling practical points and communicating them in simple language. On the other hand, some studies undertaken by university departments of adult education, have practical utility. Such studies should be reported in a manner which can be readily understood.

Two reasons given by delegates at the Conference for some research (or evaluation) reports remaining unread, and consequently not acted upon, were: (a) bad writing (e.g. no logical order, no summary of recommendations), and (b) bad publicity (e.g. put in the post with nothing more than a compliments slip). So as to prevent research results from being wasted, the following principles were recommended:

- (a) Where appropriate, measures should be taken to ensure that the results should reach those 'researched'.
- (b) Care should be taken to make the reports clear, readable, and understandable to decision makers.

- (c) The researcher should do everything possible to spell out the policy and operational implications of his research.

Future Activities

Communication of findings and coping with the political implications are two of the areas where continuing discussion of research strategies is needed. The country papers submitted to the Conference reveal that a number of member states have research components either in projects or organizations. It is also known that there are a number of networks in the Commonwealth, both formal and informal, by which research findings are exchanged. It was for these reasons that some members of the Conference suggested the establishment of a Commonwealth Association for research and evaluation in non-formal education. It was envisaged that the Association might fulfil a number of useful functions, including (a) assisting in the exchange of digests of information about research projects undertaken or planned, especially those aiming to identify solutions to common problems; (b) promoting a programme for exchange visits of Commonwealth non-formal education researchers to each others' countries to study research projects relating to non-formal education in development (in particular those using participatory research methods which are best experienced rather than described); (c) promoting and supporting a series of training programmes/workshops/seminars throughout Commonwealth countries to facilitate the sharing of professional experience and ideas; (d) trying to find means of encouraging decision-makers to make more use of research and evaluation findings in non-formal education; and (e) serving as an enquiry point for information concerning the work of Commonwealth professional researchers in non-formal education.

It is hoped that this proposal will now be given further study.

APPENDICES

1. The Anthropocentric Approach and the Dialogue Method in Literacy Evaluation (Yusuf Kassam)

The problems of illiteracy and of illiterates themselves have usually been conceived and examined from the literates' viewpoint and values. It is we the literate who make assumptions about the nature of the problem of illiteracy. It is we the literate who have drawn up, according to our own preconceived notions and class biases, a list of possible changes and effects that can be brought about by literacy and then we have gone about verifying those anticipated changes. We have made little effort in seeking the views and perceptions of the new literates themselves by involving them actively in the

evaluation process. We have made little effort to understand the illiterates on their own terms, and where some pains have been taken to do so, regrettably they have been accompanied by paternalistic tendencies. Some of us have been a little more imaginative by trying to put ourselves in the shoes of the new literate, thereby hoping to obtain a more intimate knowledge of his world, but real intimacy is only possible if the figurative act of being in someone else's shoes begins to pinch us literally. It is we who in our elitist positions of comfort, power and privilege preach to the illiterates *what we think* are the 'modernizing' and socio-economic benefits of literacy, and therefore, it is little wonder to hear the much quoted but legitimate response from them, 'After we become literate, will you give us a job in your offices?'...

In the light of more liberating, humanistic and man-centred goals of literacy, and in view of the fact that the process of adult literacy is an intensely emotional experience, I believe that by far the most significant and profound impact of literacy on people can be found in the personal and qualitative realm of their own thinking, their own feelings, their own vision and their own perceptions about the changes that may have occurred in themselves and their situation.

The investigation of such personal and qualitative changes can best be illuminated by adopting an 'anthropocentric' approach which involves the *interpretation of reality exclusively in terms of human values and human experience*. In the context of this study, the impact of literacy is portrayed exclusively in terms of the participants' own perceptions and interpretations of the literacy process as freely discussed by themselves rather than through the use of sets of selective criteria, assumptions and prefabricated research instruments of the educators and evaluators. The anthropocentric approach is qualitative and humanistic; epistemologically, it helps to give a more accurate reflection of social reality, for who would know best where and how the shoe pinches if not the wearer himself? Having recognized the authentic source from which social reality can be accurately explained, the next question to ask is: What are the best methods of tapping this source?

I believe that one of the most reliable and sensitive methods of feeling the pulse of a human activity such as the literacy process is to let the participants evaluate themselves by having a dialogue with them on an individual basis. The dialogue is intended to elicit comment on how they perceive themselves in their transformed state of being the new literate members of their community and nation. It is taped, and a verbatim transcription is produced. Apart from a little necessary editing, the transcription is not tampered with in any other way, for what is crucial in such an exercise is not only to record the participants' own thoughts and feelings but to do so in their own words and idiom and in their own style of expression. The way they themselves understand and perceive reality in their own words is what Freire calls 'a decodification of a codified existential situation'.³¹ Having transcribed all the dialogues, one can then analyse them and highlight the main theme discussed. But such an analysis should be conceived of as only a *supplementary* method of making a *summary* description of social reality which has already been authentically described in elaborate detail by the people themselves.

Dialogue facilitates the portrayal of the uniqueness of individual perception and experiences. In addition, whereas the information obtained by using the

conventional instruments such as questionnaires, interview schedules, checklists and the like superimposes the description of empirical social reality on to a predetermined framework of that reality, genuine dialogue eliminates most of the preconceived elements of the conventional research process and makes it possible for social reality to be described on a 'clean slate', as it were. The dialogue helps to capture and portray the dynamics of the social interactions with the milieu in which the effects of the literacy process are felt and experienced. To assess the literacy achievement of the people as a merely technical issue based predominantly on quantitative and statistical methods 'carries the underlying assumptions that complex qualities of human experience can be adequately registered in statistical stretches and meaningfully compared in numerical tables'.³² The dialogue method is designed not to quantify, verify or predict the personal and qualitative impact of literacy but rather to 'illuminate' it.³³ Assessing literacy achievement without paying full attention to the complexities and dynamics of the social reality is not different from observing and studying the responses of animals to a given stimulus by isolating them from their habitat and putting them in laboratories. The 'agricultural-botany model' of research, to use Parlett's coinage which has so commonly been used in evaluating the impact of educational programmes, can only produce a superficial and mechanistic, if not distorted, description of social reality.

While the dialogue method makes it possible to get a more accurate glimpse of the total human context with all its complexities and social interactions, the very *process* of dialogue serves a number of other important purposes. Through dialogue the people participate actively in the research process whereas the conventional methods and instruments treat those who are objects of research as mere sources of information (as mere cogs in the machine), a process which serves to further alienate the oppressed. Through dialogue the participants of the literacy process are treated as the central subjects and actors in that process and they are given the opportunity to 'name the world'. The dialogue helps to mobilize the human creative potential, stimulates a greater degree of self-awareness, and generates interest and motivation. In short, the dialogue is a liberating experience.

The anthropocentric approach based on dialogue can be placed under the umbrella of qualitative methodology. As defined by Filstead, qualitative methodology consists of:

those research strategies, such as participant observation, in-depth interviewing, total participation in the activity being investigated, field work, etc. which allow the researcher to obtain first-hand knowledge about the empirical social world in question. Qualitative methodology allows the researcher to 'get close to the data' thereby developing the analytical, conceptual, and categorical components of explanation from the data itself—rather than from the preconceived, rigidly structured and highly quantified techniques that pigeon-hole the empirical social world into the operational definitions that the researcher has constructed.³⁴

Furthermore, to quote Kathleen Rockhill:

Qualitative research allows us to preserve individual uniqueness, the integrity of individual meanings, and to view the individual as interacting

with a complex reality. This is critical. As an applied field, ultimately in adult education we work with individual people, institutions and communities not abstractions and aggregates.³⁵

The anthropocentric approach is in some ways similar to what has been termed as a 'phenomenological' approach in the discipline of sociology. This approach is based on the belief that 'each person constructs his own social reality. . . . The problem therefore becomes not to understand a given reality by the methods of natural sciences, but to elucidate the social system as an outcome of what people already understand'.³⁶

The anthropocentric approach is also similar in some ways to the rapidly emerging conceptualization and practice of participatory approach in research. Hall argues that:

the research process should be based on a system of discussion, investigation and analysis in which the researched are as much part of the process as the researcher. Theories are neither developed beforehand to be tested nor drawn by the researcher from his or her involvement with reality. Reality is described by the process through which a community develops its own theories and solutions about itself.³⁷

The participatory approach is also similar to the anthropocentric approach in that they are both man-centred and one of their objectives is to liberate the human creative potential through a process of dialogue. Finally, the design and some of the purposes of the research outlined below are closely modelled on participatory research in that the community or population ought to benefit directly from both the *results* of the research as well as from the *process* itself.

Finally, the anthropocentric and dialogical approach matches some of the threads of the methodology of the 'militant observer' which addresses itself primarily to the oppressed and which through action and research is designed 'to bring about an understanding of the process of change by the group which is experiencing that process, thus enabling the group to re-define and to deepen the scope of their action together'.³⁸

Let me now refer to one study which was carried out in Tanzania following the anthropocentric approach based on dialogue. This study had four broad objectives:

- (a) To capture and portray the dynamics of the human and social context through which the effects of the literacy process are felt and experienced.
- (b) To illuminate the impact of literacy on the development of the people in relation to the more qualitative, humanistic and liberating goals and objectives of literacy.
- (c) To let the new literates themselves 'name the world' with respect to the changes in themselves and in their environment brought about by literacy.
- (d) To publish the dialogues into a reader in Kiswahili in order: (i) to promote a feeling of solidarity among the community of new literates in their struggle against illiteracy by giving them the opportunity to read and share their colleagues' self-evaluated experiences and changes in relation to the impact of literacy on their lives; and (ii) to make a small contribution

towards meeting the present great need to provide literacy follow-up reading materials in Tanzania.

The dialogues were conducted with a total of eight new literates, five men and three women, from four different regions of Tanzania. All the dialogues were conducted in Kiswahili, the national language, and the themes that were discussed in the dialogues were as follows: (a) general self perceptions about being literate; (b) status in the family, neighbourhood, work place and the community at large; (c) economic well-being; (d) relationships with family members, fellow-workers, friends, neighbours and citizens; (e) motivation for literacy; (f) views about education and knowledge; (g) practical uses of literacy skills in daily life; and (h) further and continuing education.

The dialogue on each of these themes was stimulated and sustained by asking certain non-directed questions, and the number, nature and phrasing of these questions were influenced spontaneously by the specific nature, circumstances and progress of each dialogue. In other words, a conscientious attempt was made to promote and develop the dialogue as naturally, openly and flexibly as possible in order to allow the participants to talk and discuss as much as they wished about whatever aspects of the themes concerned them most. The various questions that were asked to stimulate the dialogue were non-directed questions in order to prevent the reality from becoming coloured by the researcher's expectations, assumptions and values. For example, under the theme of 'general self-perceptions about being literate', a directed question such as 'Do you feel liberated and self-confident as a result of becoming literate?' was not asked. Instead, a variety of non-directed questions were asked, such as 'What does it feel like to have become literate?' 'What is the significance of literacy in your life?' 'Now that you are literate, how do you perceive yourself and your environment?' 'What changes, good or bad, have been brought about by literacy in your life?' and so on. In using these non-directed questions on the basis of a 'clean slate' approach, the main purpose was to obtain an accurate and authentic description of social reality.

The dialogues were conducted in a relaxed and friendly atmosphere. Although the purposes of taping the dialogue was clearly explained to the participants, the small cassette tape-recorder and its microphone were placed and operated as inconspicuously as possible.

These themes were not necessarily discussed in the order in which they are listed above. In some cases one or two themes were not discussed at all in response to the peculiar circumstances of each situation, while in other cases discussion of one theme incorporated a discussion of one or two other interrelated themes at the same time. In transcribing the dialogue, therefore, this overlap of themes was not discussed and re-arranged under the relevant theme heading. Also the format in which the dialogues were transcribed was not uniform. In fact, uniformity was neither possible nor desirable, for it would have destroyed the flow and contaminated the uniqueness of each dialogue until it degenerated into some sort of 'data tabulation' exercise. The most important consideration in transcribing the dialogues and translating them from Kiswahili into English was to record the participants' thoughts and feelings in their *own words and idiom and their own style of expression*. To tamper with the verbatim dialogues in any other way apart from a little bit of

editing would have distorted the picture of social reality that the new literates were portraying.

One of the dialogues is appended to this paper to serve as an example. It is clear from the eight dialogues conducted that literacy has made a powerful and positive impact on the qualitative aspects of people's development. All the sentiments, perceptions and feelings which have so forcefully and eloquently been expressed by the new literates indicate dramatic changes in the quality of their lives. By and large, they have got rid of their former state of marginality, alienation and fear, they feel more self-confident, they have become politically self-conscious, they have regained their human dignity, they cannot be exploited and humiliated in the same way as before, they have become self-reliant, they feel like active subjects rather than manipulable objects, and they have begun to demystify social reality. I believe that it is these kinds of *qualitative* changes brought about by literacy that make a much more significant and profound impact on the development of the people rather than the quantitative changes alone.

Dialogue

The following dialogue was recorded with Ndugu Yusufu Selemani, a worker at The Tanganyika Coffee Curing Co. Ltd., Moshi. He was 38 years old, married, and had five children, all at school in Moshi.

Ever since I was employed to work at this factory, I used to face burdensome problems. Because of my illiteracy, whenever I was asked to carry a bag of coffee, my supervisor had to accompany me to the store to make sure that I deposited a bag of coffee of a particular grade in the appropriate storage places. The quality of coffee has many grades, as for example, AA, A, PB, AF, C, etc. and each grade of coffee throughout its various stages of processing must be stored in the appropriate places which are all numbered—12M, 24C, 15K, and so on. Now that I have become literate, I can do this job all myself without being physically escorted by my supervisor. How can you as an adult and a father of children tolerate being treated like a child—'go there, take this, bring that'—all under close physical supervision? But now I can even detect mistakes made in the storage exercise and point them out to the supervisor.

I can now read all the letters I receive from my relatives and friends and I am able to reply to them. I can without anyone's help send some money home. Previously I had to beg and implore someone to help me write letters for me to my wife and send her some money whenever she went home. In that process, all my secrets were exposed. It is also possible that the person who writes letters for you to your wife can write a lot of rubbish and you do not know about it.

Literacy has opened our eyes and it has done us such a lot of good that I now believe that if anyone refuses to become literate he should be dismissed from his job. I now realize that when I was illiterate I was made to work like a plough being dragged by a cow and that was a humiliating experience. I was like a blind man being led by one who can see.

The benefits of literacy are innumerable. Now that I have become literate I feel that before I was carrying a small lantern but now a pressure

lamp has been brought to me. I can now see much better. I can now hold a pen and sign my own name instead of using fingerprint. For all this I am very grateful. If a man is not grateful for such great changes as a result of literacy, I do not know for what else can one be more thankful. The nation has remembered that some of its citizens are backward and has consequently tried to help us to move forward. If someone responds by saying, 'Leave me alone, I will reach there myself', he is mistaken. If a literacy teacher holds your hand and offers to help you to jump over the river you should really be thankful.

Before the literacy classes were started at our factory by the new Tanzania management, the old foreign management did nothing to alleviate our oppressed state. They maintained our ignorance and it seems to me that they actually took delight in pushing us about like a plough. The truth is that if I start talking about my former oppression and wretchedness, I will not be able to finish talking about it even if I spend a whole day. In short, when I started to work in this factory one of my legs was inside the factory and the other was outside because your employment could be terminated in a most arbitrary fashion and there would be no law to protect or defend you. The manager was the Lord Justice himself: he decided and there was no one who could question him. You could not fight for your rights—if you are told to go, you go. But now I can fight for my rights, and before I take any personal initiative of which I am capable, there is the Party branch at the factory as well as the NUTA branch, both of which are very alert and watchful and which can stand up on your behalf. This is one of the fruits of independence. I am thankful to God. No one can now flout your rights and get away with it. It is not worth looking backwards any more, life was very tough for us. Now you cannot be dismissed arbitrarily. If a worker makes a mistake, he is advised accordingly. Formerly, if I had felt tired of my job and had decided to quit, nobody would have cared. But now you are counselled by the various organs at the factory. You feel respected and appreciated. Unlike before, the Manager cannot just pass by you without greeting you and sometimes even talking with you. This country now is full of laws. I now feel a more complete human being. It is like being born again and all your rights are explained to you.

As a result of literacy I now understand the whys and wherefores of things and because I understand I can now maintain my own self-respect. If I see a signpost which says 'Do not Pass', I stop and thereby preserve my self-respect. If I do not obey the instructions I will lose my self-respect. People realize that yesterday and the day before this man used to get his letters written but now he can write them himself. I go to the post office myself and ask for air mail postage stamps. Formerly, when I sent some money home in a registered envelope, I used to ask the postal clerk to give me that 'big envelope'. I did not understand what a registered envelope meant. When the clerk weighed my letter, I used to ask him why he was weighing my letter and not those of other people who dropped their letters straight into the mailbox. But now I understand everything. I know the difference between an ordinary letter and a registered one. People around you notice these changes and they consequently respect

you. They say, 'He knows'. I must add that now we have been told through our functional literacy programmes that it is much safer to send your money by a money order instead of hard cash in a registered envelope. Before, we did not know about these things.

We thank God for being given this opportunity to read and write. Our knowledge and horizons have now expanded. We are now fascinated to learn so many things about which we did not know anything. Literacy has broadened my mind, for example through literacy primers I have now learned the best methods of growing maize on my little plot of land. When I go to an agricultural station and buy orange seedlings, for example, I ask them to tell me the details of how to transplant them on my little shamba. The agricultural officer explains everything to me to my satisfaction. In the old days I felt that such information, instruction and techniques were professed and used by Europeans only. The European was never prepared to educate you—he would only order you about. This is the meaning of liberation. We feel liberated. The rope that had been twisted around you has been untied and so naturally you feel happy.

My other colleagues in the factory who have also become literate have now become more helpful and co-operative. When I face any problems, whether at work or at home, they are always willing to help me, for they have been made to understand that Tanzanians should like each other and co-operate with each other. Such a relationship has been brought about through the light of education.

The relationship between me and my children is very different from the kind of relationship I used to have with my father when I was young. In those days, if I told my father that I wanted to study we would start a quarrel, for he believed that those who got educated merely moved about from one place to another like tourists. He wanted me to build a house and live a settled life. He himself never had the opportunity to learn about better methods of farming. But I tell and encourage my children to be conscientious about learning and I warn them that if they did not work hard there would be nothing that I would do to help them. I tell them, 'Do not blame me afterwards for your misfortunes and failures in life. Education nowadays is offered to you right at your doorstep and so you should take advantage of it'.

I help my children in their school work. For example, when my eight-year-old child returns from school I always ask him questions—'What did the teacher teach you today? What did you write today? Where did you write?' I do not want my children to suffer the way I suffered by missing schooling during my childhood.

My economic condition has improved. For example, you are made to understand certain ways and means which you can use to improve yourself economically. You are told that in time to come you will become old and you have your children to take care of. Therefore it is important to save some money every month and put it in a savings account in the bank. I have realized the importance of saving not only for the sake of my children but also for solving my own special problems as they arise from time to time. Before, there was no one to tell you 'Brother, there is a

today and a tomorrow. Even if you have only two shillings to save, save it by keeping it in a savings account’.

My wages have increased as well as a result of becoming literate. I can now exercise my own initiative in my job. When I use my literacy skills in doing my job more efficiently and with greater productivity, my efforts become much more visible to my employers and I am rewarded accordingly.

I had missed the opportunity for schooling during my childhood because the nearest school was 43 miles away. When I grew up, I felt very bitter about that. Those were hard times. But now educational facilities have brought closer to the people right to the village and work-place. Whatever was far has been pushed nearer to you. And so I was only too happy to take advantage of this great opportunity for learning right here at my factory.

Before, the word ‘education’ used to terrify me. When you heard that someone had an education you were led to believe that it was something very difficult and inaccessible. You began to wonder where did he go and what did he do to get his education. Previously, it never occurred to me that the so-called educated man must have started from scratch too—that is, by acquiring the basic literacy skills first. Instead, you thought that this man was *born* with education. It was a baffling phenomenon. Education had the aura of some kind of magic. But now I know that anyone can learn and anyone can get education. I realize that education is a thing that is taught to you and education is development. An educated man is simply one who is made to *understand* and to *know*, and that is how we are involved in our literacy programme. And it is not at all difficult. Education, we thought, was something that was ‘there’, somewhere far away. We did not know where that ‘there’ was, but now you are told that it is right there near the river and so you realize that it is quite near.

Literacy first and foremost enlightens your whole life and all your daily activities whatever they may be. I read all sorts of books and learn many things. And as I have already said before, literacy helps me directly in doing my job more competently and intelligently. I read newspapers, especially ‘Uhuru’. I buy a copy almost everyday unless I am short of cash. And when that happens I borrow a copy of the newspaper from a friend who has bought it. Sometimes I buy books and read them at home and I also borrow some books from my friends. I thank God.

Looking back from where I started and where I find myself now, it is a matter of great achievement and I hope to learn a great deal more. A man of my age who has now learnt how to read and write letters is a matter of being thankful to God. Our teachers are hard working and have liberated us from ignorance. I thank God for that and I also thank the teachers for their whole-hearted efforts in teaching us.

2. No Evaluator is Neutral (Alan Etherington)

In the recent writings on non-formal education, we have witnessed a return to stressing the links between education and political struggle. ‘There is no such thing as a neutral educational process’ writes Shaull in the introduction to

Pedagogy of the Oppressed: 'Education either functions as an instrument which is used to facilitate the integration of the younger generation into the logic of the present system and bring about conformity to it, or it becomes 'the practice of freedom', the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world'. And in the main body of the same text, Freire has drawn the important distinction between banking and liberating education: 'In the banking concept of education, knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing... Liberating education consists in acts of cognition... involves a constant unveiling of reality... and strives for the emergence of consciousness and critical intervention in reality'.

Similarly, as Green defined: 'The first task of education is to create both an understanding that change is possible and the knowledge of alternatives leading to desire for change. The second is to enable individuals and communities to identify what types of change they wish to achieve and how to set out to attain them. The third—not the first—is the training in particular skills and the provision of particular pieces of knowledge'.

Political factors are also evident in Lovett's discussion of community education in Northern Ireland, where he distinguishes between community education as the 'arm' of community action and as a general educational service. As an 'arm' of community action, education is concerned with: 'group discussions, reflection and acquisition of practical skills in an atmosphere removed from everyday pressures... viewing it as a social movement which bridged the sectarian divide and offered some hope of eventual working class solidarity'.

By contrast, community education as a community service 'emphasizes a commitment to the working class as a group so they can avail themselves of adult education resources and opportunities'. While this may serve individual advancement it does not relate to the 'resources and services required to inform, strengthen and develop a community action movement'.

As a final example, Werner has distinguished a continuum of programmes of rural health extending between two poles: community supportive and community oppressive.

Community supportive programmes or functions are those which favourably influence the long-range welfare of the community, that help it stand on its own feet, that genuinely encourage responsibility, initiative, decision making and self-reliance at the community level, that build upon human dignity.

Community oppressive programmes or functions are those which, while invariably giving lip service to the above aspects of community input, are fundamentally authoritarian, paternalistic or are structured and carried out in such a way that they effectively encourage greater dependency, servility and unquestioning acceptance of outside regulations and decisions which in the long run are crippling to the dynamics of the community.

Moreover, he notes that 'with certain exceptions, the programmes which we found to be more community supportive were small non-government efforts,

usually operating on a shoestring and with a more or less secretive status'.

Similarly, there has been a growing awareness of the political role of social research. For example, in discussing who social researchers choose as their objects of study, Nicholas has argued that: 'Sociologists stand guard in the garrison and report to its masters on the movement of the occupied populace. The more adventurous sociologists don the disguise of the people and go out to mix with the peasants in the 'field' returning with books and articles that break the protective secrecy in which a subjugated population wraps itself, and make it more accessible to manipulation and control'. But, he challenges: 'What if the machinery were reversed? What if the habits, problems, actions and decisions of the wealthy and powerful were daily scrutinized by a thousand systematic researchers, were hourly pried into, analysed and cross-referenced, tabulated and published in a hundred inexpensive mass-circulation journals, and written so that even the fifteen-year-old high school drop-outs could understand it and predict the actions of their parents' landlord, manipulate and control him?'

There are also political considerations in the choice of how social research is carried out. The use of the normal methods such as interview and questionnaire in adult education have been criticized on such grounds as: (a) oversimplifying social reality; (b) asking for fragmented opinions or knowledge rather than a holistic view of their life; (c) talking to individuals rather than groups; (d) the difficulty of linking them to subsequent action; (e) the benefits they bring to the researcher rather than the researched; (f) the appearance they give of being objective; and (g) their over-emphasis on what is quantifiable (i.e. head-counting surveys).

Clearly the uncritical use of the usual methods of social research will distort an evaluation. As a final point, we should remember that we normally occupy a different position in society from the participants of most programmes of non-formal education. As de Oliveira put it: 'How can a social scientist be objective toward society if he or she be an integral part of that same society and if the social position which he or she occupies causes one to think in such and such a manner?'

The evaluation of non-formal education involves, therefore, the use of a politically loaded process to study a politically loaded activity. As evaluators of non-formal education, we cannot pretend to be neutral in how we work, nor on what we work, nor about the potential uses to which our work may be put. Moreover, pretending there is no decision to be made is in itself a choice. As Freire points out: 'Refusal to take sides in the conflict of the powerful with the powerless means to side with the powerful, not to be neutral'.

Traditionally, social evaluation has been viewed as a tool to assist decision makers to make better decisions about the modification, continuation or termination of programmes designed for those effectively precluded from the decision-making process. The first, and crucial, political decision to be made is 'Whose side are we on?' For evaluators it would seem that this has been clearly answered by the role definition above—we are on the side of the powerful, the decision makers and the state. Consequently, we are not on the side of the oppressed, the powerless and the poor.

This then leads to a dialectic of evaluation—it is possible for us to serve the decision makers and economically survive as evaluators, while at the same time

contributing through our work to the political struggle for social justice? The dilemma is intensified when it concerns evaluating programmes with which one has no sympathy. On the one hand evaluation may help a bad programme improve and become perhaps more oppressive or give it a certain unwarranted credibility. On the other, as Berk and Rossi point out, 'To avoid evaluations unless one can work comfortably with the people for whom the research is being undertaken is clearly a political and moral decision with political and moral consequences. By failing to participate one has loaded the dice so that the results will reflect the preferences of the active parties. Clearly withdrawal may be equivalent to implicit support'.

Most programmes of skill-based non-formal education are based upon an analysis of a problem informed through conventional wisdom. For example, that the unemployed are unemployed because they lack the appropriate skills. Some would argue that the mere inclusion of an evaluation component implies some uncertainty about that analysis or how it has been operationalized. To the extent that this uncertainty is confirmed, then this conventional and limited wisdom is thrown into question. As, for example, when an evaluation shows that even with skill training, the unemployed remain unemployed.

The Canadian Accountant General has recently spoken of 'an understandable temptation to avoid any attempt to evaluate effectiveness because the evaluation may reveal findings unfavourable to a programme. Any attempt to evaluate effectiveness in the Government environment is an act of courage'. Evaluation is a (minor) risk to the state, and that risk increases with a skeptical, politically-aware evaluator. Moreover, with public spending 'cut-backs' the pressures to evaluate are increasing.

It is almost always insufficient to limit the evaluation to consider only how far the programmes' goals have been met. Many programmes of non-dialogical education can achieve their limited objectives without affecting the underlying social structure or making any impact in the problem that spawned the programme in the first place.

For instance, it is possible to increase knowledge of nutrition or change attitudes towards fertilizers without increasing health or food production? A token evaluation might judge such a programme a success but a politically aware evaluation would want to go further and consider, for example, the political economy of nutrition or agriculture.

It is the writer's experience that decision makers are often unclear about the objectives of a programme of non-formal education and the method by which it will work. They are even more unclear about what questions the evaluation should answer or how it should go about its task. There is, therefore, a certain amount of free space to ask politically important questions such as 'Who gains at whose expense?'. It is impossible for everyone to benefit through any programme and probably not to be welcomed if it did. As Green states: 'To say that "everyone gains" . . . is an ambivalent (result): should slum landlords, coercive petty bureaucrats and predatory companies, gain too?' This free space may also permit us to follow a method of participatory evaluation and to accord more weight to the opinions and judgements of participants than, say, administrators or employers.

Many of our evaluation tools are drawn from mainstream social sciences with their emphasis on studying and labelling individuals. With this legacy we

are far more able to measure an individual's knowledge or skill than an organization's oppressiveness or flexibility. As an attempt to shift the focus from individuals to the programme in which they study we have developed an instrument for use by students of adult education in Canada which provides a rather crude yet telling way of judging the objectives, content and method. It is based on the insights of various writers on the politics of education (and, in particular, Freire).

Part of this instrument is reproduced below. It isolates a number of important themes, and introduces the extremes of each theme with a short quotation. The exercise is then to locate the approximate position of the programme on each scale from the evidence available and provide a rationale for this position:

The Teacher-Student Relationship

A careful analysis of the student-teacher relationship at any level, inside or outside the school, reveals its fundamentally narrative character.

Through dialogue, the teacher-of-the-students and the students-of-the-teacher cease to exist and a new term emerges: teacher-student with students-teachers. The teacher is no longer merely the-one-who-teaches, but one who is himself taught in dialogue with the students, who, while being taught, also teach.

←—————→
teacher-student dialogues *teachers narrate*
with student-teachers *to students*

Collective or Individual Advancement

We have to say today 'we think, therefore we are'. Because I cannot think if you do not think. Secondly if I cannot think with you, we cannot know.

Without collective advancement there can be no genuine individual advancement, but only uprooting.

←—————→
collective *individual*

The Origin and Control of Content

For the anti-dialogical banking educator, the question of content simply concerns the programme about which he will discourse to his students; and he answers his own question by organizing his own programme.

The starting point for organizing the programme content of education for political action must be the present, existential, concrete situation, reflecting the aspirations of the people.

We must teach the masses clearly what we have received from them confusedly.

←—————→
bottom up *top down*

Effect of the Education

The development of an educational methodology that facilitates this process (of the practice of freedom) will inevitably lead to tension and conflict within our society.

The more completely they accept the passive role imposed on them, the more they tend simply to adapt to the world as it is and to the fragmented view of reality deposited in them.

←—————→
tension and conflict *adaptation to the world as it is*

From limited use, we have found that it works first as an educational tool, assisting us to understand and apply these various insights. From an evaluation point of view it has the potential to move the task from a solely research activity to one of research and critique. Data are no longer collected only to measure or even illuminate the programme but to be critically judged against specific criteria.

The evaluation of small-scale programmes of consciousness-raising differ significantly in a number of ways:

- (a) Goal-oriented evaluation is inappropriate, for by definition the programme starts with a commitment to a dialogical method but not to a fixed goal. The goals are determined by participants during the course of the programme as a dynamic and continuing process.
- (b) Formal evaluation is often precluded by the process of praxis, with its emphasis on reflection, which thus makes evaluation explicitly part of the programme.
- (c) By exploiting the free space that exists within liberal pluralist societies it may be possible for radical consciousness-raising programmes to receive some state support, to survive and perform effective work for some years. It is in this period that an outside evaluation could serve as intentional or unwitting espionage. This may mean the politically aware evaluator choosing not to ask some questions of a programme or suppressing some results for some audiences. For as Rahnema has observed: 'It is... naive to suppose that an élite-ruled, technocratic and modernizing society will for long tolerate an education system which threatens to become a powerful instrument of internal subversion'.

For countries committed to the full and democratic involvement of their citizens in development, consciousness-raising programmes will not normally pose such a subversive threat to the state. Evaluations in this setting then appear to serve such functions as: (a) describing the programme to encourage its appropriate replication; (b) illuminating its workings to inform future programmes of its experience and lessons; (c) measuring its worth through value judgements of participants physical results, participation rates, etc. and (d) defining who has benefited at whose expense.

Freire has recently written of education: 'In concerning myself with what should be known, I am also necessarily involved with why it needs to be known, how, to what end, and in whose interest, as well as against what and whom'. As evaluators or researchers, involved in the process of deciding 'what should be known' these thoughts clearly apply to us. And as educators we know the importance of continuing our personal learning. With our concern for conscientizing 'others' we should also be concerned with raising our own consciousness. There is no other solution to the dialectic of evaluation.

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