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Functional literacy as an approach to literacy education is now widely accepted; the Experts on Research in Literacy, meeting at Unesco House in July, 1968, felt that, because of the relative novelty of functional literacy, research was needed as part of training programs, and on specific topics. The groups agreed that research, in most cases, would require the cooperation of several disciplines and professional fields. A number of research projects were suggested; those to which the group attached the highest priority were: investment in schools or adult education; minimum level of literacy necessary for industrial development; illiteracy as a bottleneck to economic development; way of life of target groups; language of instruction; second language learning; analysis of a promotional campaign; motivation in different cultural settings; the community; course content and cost; comparative linguistic studies; effect of active participation on dropout rate; exposure to mass media to create interest; and effects of functional literacy on adult participation in the economic life of the community. (Annexes include a list of participants, other suggestions for research, and research undertaken or sponsored by Unesco in 1968.) [Not available in hardcopy due to marginal legibility of original document.] (eb)

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UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANIZATION

Meeting of Experts on Research in Literacy

Unesco House, 8-12 July 1968

SUGGESTIONS FOR RESEARCH IN ADULT LITERACY

1. The problem of illiteracy

The Director of the Department of Adult Education and Youth Activities of Unesco opened the meeting with a brief factual statement in which he emphasized the magnitude of the problem of illiteracy in the world today. Although the world's rate of illiteracy declined from 44.3% to 39.3% during the decade from 1950 to 1960, the absolute number of illiterates increased from 700 million to 740 million, as a result of the tremendous population growth which took place during that decade. In Middle Africa, an area including 35 countries, the target for a yearly increase of 5% in school enrolment has fallen short by about 3.3% during the period from 1960 to 1965. Even more serious, perhaps, was the drop-out rate in primary schools, which during this same period showed a yearly average of 21%, that is to say that of every 100 children entering primary school in 1960, only 52 had reached the 6th grade in 1965. If these tendencies are maintained, the number of future illiterate adults in Middle Africa will increase from the 4.1 million existing in 1960 to a 5.2 million in 1975, although the rate of illiteracy will decrease from 77% to 68%. (1) Even if these rates are improved, it appears certain that illiteracy will continue to be a problem for a long time to come, and not only in Africa.

Mass literacy campaigns, in the past, have been organized in several countries, but because of the extensive approach used they have often been superficial and frequently have been directed towards people whose motivation was poor. Having nothing to read, the learners have tended to relapse into illiteracy.

These facts point out the need for a new approach, i. e. the functional literacy approach, which was endorsed by the World Conference of Ministers of Education for the Eradication of Illiteracy, Teheran, 8-19 September 1965. At this Conference the Ministers of Education agreed that literacy should be imparted to selected groups motivated to use it in their daily life and work, to permit it to make a contribution to economic and social development. In this way, literacy becomes work oriented, and vocational training and social and civic education, along with the teaching of reading, writing, basic science and arithmetic, are fused together to make up its curriculum.

The adult in the factory or on the farm comes into contact with many problems of production, marketing, distribution, co-operatives, absenteeism, nutrition, civics, etc. He must think about these problems and try to solve them.

Materials for literacy, therefore, should utilize words needed on the farm or in the factory, so that the adult learners will immediately see the connexion between literacy and vocational training.

This selective, intensive, work-oriented approach to adult literacy is now widely accepted, and it has been given the name of functional literacy. It is recognized as a principal factor of economic and social development and the United Nations Development Programme (Special Fund Sector) and Unesco are assisting a number of governments to develop Experimental Functional Literacy Projects, whose objectives are to demonstrate the contributions of literacy to economic and social development.

(1) Figures provided by the Unesco Statistical Office.

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2. The need for research

The group felt that because of the relative novelty of functional literacy, research was necessary to orient and guide programmes. Two types of research were proposed: (a) research as an inseparable part of training programmes and (b) research on specific topics connected with functional literacy problems, such as:

- (i) the actual number of illiterates in the world today;
- (ii) the kind of programmes required to meet the needs of specific target groups;
- (iii) ways and means of integrating vocational training and literacy teaching;
- (iv) the rôle of local languages and *linguae francae* in literacy teaching;
- (v) the type of curriculum and training required to produce planners, organizers and trainers for literacy programmes;
- (vi) the psychological factors which impede or foster change;
- (vii) the contributions of mass media to functional literacy programmes;
- (viii) indicators which may serve to evaluate the total impact of a project.

How is the actual research situation? Unesco has invited several institutions and individuals in various parts of the world to prepare bibliographies on literacy research, but the result has not been encouraging. Most contributions consisted of descriptions of various literacy projects, but genuine research appeared to be far from sufficient to provide reliable guidance to projects.

3. Interdisciplinary and multidisciplinary research

The group agreed that research on functional literacy, in almost all cases, would require the co-operation of several disciplines and professional fields: education, economics, sociology, anthropology, linguistics, communication, audio-visual aids, etc. For example, research on such an obvious topic as what happens to a man when he becomes literate, would require the co-operative efforts of several disciplines since the new literate would have to be studied not only as an adult learner, but also as a worker, a father, a husband, a citizen, a member of a political group, a member of a religious group, a member of a trade union, etc. Research initiated about individuals would have to move on to consider the impact of these individuals on their village, their factory, their social group, etc.

Interdisciplinary research requires an integrated team of specialists, in most or all of the disciplines mentioned above, each of whom has sufficient understanding of the others' disciplines to be able to plan and execute a team research project. However, since large numbers of interdisciplinary specialists can seldom stay together for the duration of a project, it is frequently necessary to use a multidisciplinary approach, which does not require such a high level of integration and which consists of parallel studies. In such research, one discipline generally plays the most important rôle, and its representative assumes the task of defining the terms and frames of reference to be used in the research.

In planning either of these types of research, the group agreed that clear definition of terms was essential, as well as agreement on the methods and techniques to be used. The time and effort needed to reach such agreement should not be underestimated. It was further agreed that research which requires the co-operation of various specialists could best be entrusted to a university or a research institute where all of the disciplines involved are to be found. Since the various disciplines would not require an equal amount of time to carry out their designated tasks, the presence of some specialists may not be required continuously. On occasions, one or more of them may be compelled to discontinue work on the project. Consequently, a well-staffed research institute or university would be best suited to conduct research studies and ensure their continuity.

When a university or a research institute carries out multidisciplinary studies abroad, it was felt that at least one national research worker should be added to the team, to ensure the avoidance

of misgivings about the nature of the work. Such procedure would provide the team with the intimate knowledge of the culture concerned that only a national can possess. It would also tend to ease tensions between national and foreign specialists about the "export" of raw data which are not made available to national universities and research institutes.

Due to the time limitations the group was not able to discuss methods of research in more than one discipline, or the problems of comparative research, although the importance of these problems was fully recognized.

4. Types of research projects recommended by the group

During the discussions a number of research projects was suggested; those to which the group would attach first priority are incorporated in the text while others are given in Annex II. The projects are not listed by discipline, since most would require the co-operation of several, but rather in logical order with due regard for the timing to be followed in the development of a functional literacy project. This order, of course, is not fixed, since different projects may have to follow a different time sequence. Neither does it mean that earlier research projects should be given priority over later ones, or that research can be undertaken only in a given order. It was hoped that the list would emphasize the need for research in various fields in order to cover the problems of functional literacy as a whole.

Some of the suggestions made do not deal with research directly, but with important associated areas. This is particularly true with regard to statistics on adult literacy. It is well known, for example, that there are no uniform criteria for determining who is literate and who is illiterate. Furthermore, available research indicates that the discrepancy between those who claim to be literates by self appraisal and those who have passed standard literacy tests tends to be large in countries with a high percentage of literacy and small in countries with low percentages of literacy, since in the latter illiteracy seldom bears a social stigma. In this connexion, the group felt that, for planning purposes, it was of crucial importance to know exactly what the rates of literacy are, country by country, the extent to which adults relapse into illiteracy, and the latest trends in adult literacy.

It was noted that census data on adult literacy are of doubtful reliability because of the different criteria used to identify literates. Every effort should be made to standardize these criteria. The answers given to census takers might be checked by the application of literacy tests to a sample of the total adult population.

The question of a literacy scale which would take into account such items as comprehension, vocabulary and reading speed was discussed. Such a scale would measure reading ability and not merely distinguish between literates and illiterates. It should not try to measure learning, but only the reading, writing, arithmetical and vocational skills required for functional literacy. Furthermore, the group noted that varying levels of literacy may be required in countries which differ in levels of development, in script and in intensity of communication. This should not be construed to mean that a literacy scale could not be internationally applicable, but only that the amount of effort required to attain a certain point on it would vary from country to country. For example, it requires more effort to become literate in Chinese than in English, even for people who speak these languages as their mother tongues.

5. Research connected with project planning

Adult literacy programmes are usually initiated by the government, and a number of decisions about them must be made during the planning stage. Research can help governments to appraise the total situation, and to make the best choices, when confronted by alternative possibilities:

I. One alternative is the choice between investment in schools or in adult education. In paragraph 1, it is shown that adult illiteracy will continue to be a long-term problem, in spite of heavy expenditures for school education, which in some countries amount to as much as 25 per cent of the national budget. But, at the present time, only one country (Iran) spends more than 2 per cent of its educational budget on adult literacy. The conclusion of a recent article⁽¹⁾ on this subject favoured

(1) M. Blaug, "Literacy and Economic Development", The School Review Vol. 74, No. 4 (Winter 1966), pp. 393-418.

a larger share for adult literacy, but did not indicate whether the 5 per cent suggested at the Conference on the Development of Education in Africa (Addis Ababa), 1962) would be too high or too low. Studies should be undertaken to ascertain the optimum proportion between investment in school education and adult literacy, that would be required to facilitate rapid development.

II. The question posed by Anderson⁽¹⁾ about the minimum level of literacy required for industrial development during the Nineteenth century is a closely connected problem. To what extent are his findings valid under present conditions? There are arguments for both a lower and a higher percentage than the 40 per cent that he discovered, and it is not certain that the same percentage would be valid for all countries. Research is needed to test the hypothesis that a particular minimum level of literacy is necessary for industrial development, and also whether this minimum level would be valid for all countries.

III. A third set of studies could approach this problem from a different angle. For example, research might be undertaken to determine the extent to which illiteracy should be regarded as a bottleneck to economic development, and as a hindrance to foreign investment in agriculture and industry. Also, in a more general sense, it is important to analyse the economic functions of literacy in varying economic and social settings.

IV. Once a decision has been made regarding the extent to which literacy contributes to economic development, studies to identify the target groups and field research to provide data on the way of life of the future participants in literacy courses become important. These data are required not only for programme planning, but also for comparisons with other project areas in the same country, or in other countries, and to indicate other "background" variables.

V. In many cases, it will be necessary to solve a major preliminary problem about the language of instruction. For example, literacy often is imparted in a language different from the learners' mother tongue. This adds a new dimension to functional literacy programmes, which already consist of literacy teaching and vocational training. The decision about the choice of language for literacy teaching is obviously a political one, but, when making it, it would be advisable to consider certain points such as the following:

- (a) Has the language chosen been studied sufficiently to make its use practically feasible for literacy teaching?
- (b) Is its use sufficiently widespread to provide persons made literate in it with the essential benefit of literacy, i. e. the possibility of large scale communication?
- (c) Is sufficient reading material of interest to literates available in this language, or is there certainty that it can and will be produced?

VI. If literacy is to be imparted in a language other than the national language, how should the programme be organized and carried out? It may not be feasible to find an absolute answer, since much will depend on the relationship between the first and the second language, the extent to which the language of instruction is already known and the orthographies adopted for each of the languages.

VII. Experiments may be undertaken to see whether it is advantageous to start literacy teaching in the mother tongue and then proceed to a second language, in those cases where literacy is to be taught in a language which is not the adult learner's mother tongue.

6. Research connected with the execution of projects

VIII. Some research is required even before a functional literacy project is initiated. For example, it may be necessary to launch a promotional campaign to create a favourable climate for the project, not only among future participants but also among the population as a whole, since success or failure may depend on the way it is initiated. An analysis of a promotional campaign may clarify not only its influence on attitudes, but also the rôle that should be played by mass media in helping to launch campaigns.

(1) Anderson, "Literacy on the Development Threshold: Some Historical Cases", Education and Economic Development (eds. Anderson and Bowman) Chicago, 1965, pp. 347-362.

IX. Another problem of importance relates to motivation. For example, what are the motives of the participants in functional literacy classes? Obviously, in work-oriented projects, the economic motive is a strong one, but it is possible that adult illiterates may have other motives as well, such as the desire to read the scriptures, the prestige that a literate person gains in the community, or the loss of prestige in the eyes of their children, that may result if they remain illiterate, etc. Nevertheless, "motivation", is a complex concept, and political and social pressures, as well as personal motives, must be taken into account. McClellan's "achievement motivation" has already been studied in various cultures, and it will probably play different rôles in high and low literacy societies. Apart from the well-known phenomenon of weakened motivation which results in drop outs, the type of course itself, the teachers and the physical surroundings also may play a rôle in sustaining interest. Changes in motivation may occur, and in this light, it may be rewarding to study the effect of frustration on learners if an anticipated result (e. g. immediate economic betterment) is not attained; also it may be worthwhile to try to discover whether other motives are strong enough to make up for the loss. Studies of motivation in different cultural settings, may be especially useful if carried out over a period of time (before, during and after a literacy course) with participants in courses, non-participants and drop-outs, particularly if both individual motives and external conditions are taken into account. Similar studies may be undertaken on the motivation of literacy teachers in order to facilitate recruitment and selection.

X. Research on the community, particularly on reference groups within the target group, should be closely connected with the studies of motivation. Such research may indicate motives which may be hidden to the individuals studied, but which consequently may be all the more powerful. A study of reference groups may throw more light on the real motivation of the target group, and this may help to indicate items that should be included in the literacy programme. A similar topic which may be studied is the probability of changes in reference groups, during the course or after it is over.

XI. The actual preparation of courses constitutes the central problem in functional literacy. The programmes are intended to make an impact on workers' productivity and should therefore offer sufficient specialization. There is a danger, however, that the content might become too narrow and rigid, and thus tend to imprison the worker within his present occupation.

Closely connected with this problem is that of cost. Determining the content of a programme is a difficult and time-consuming task. The requirements of the job, for which the programme is being prepared, must be carefully studied and deficiencies in its execution must be remedied. Then a thorough word count related to the occupation involved and a basic vocabulary must be developed; simultaneously literacy teaching and vocational training must be integrated. What would be the cost of such a programme if it were to benefit only 100 or 200 persons, as is frequently the case in the smaller non-industrialized countries? Similarly, can the use of mass media be justified if the broadcasts are directed to very small groups? The other extreme, "neutral courses", which would not improve vocational skills, and therefore, would not attract the workers' interest or increase their productive capacity, would merely imply a return to traditional literacy teaching, which has proved to be of limited value. Research is needed, therefore, to ascertain the way in which work-orientated literacy programmes should be organized, to ensure that they offer sufficient specialization to increase workers productivity and, at the same time, contain a common core of subject matter big enough to allow easy adaptation of the workers to some other occupation.

XII. An adult literacy programme also has the task of helping adult learners to think in more abstract terms. The substitution of symbols for concrete objects is one way of facilitating abstract thinking. The structure of the language involved and the availability of technical terms in it will influence the learners' ability to think abstractly and to absorb new ideas. In this respect, the situation is not the same in every language. In each case the introduction of new concepts will require new words which should be coined in agreement with the phonemes of the spoken language and its structure. New, not yet sanctioned, expressions or terms (neologisms) can be introduced into a language successfully only when they are acceptable to the people concerned. This means that not only linguists must be involved, but also psychologists and specialists in the field of activities for which the new terms are needed.

Research is accordingly required on the ways in which literacy can contribute to the conceptualization of new ideas. Comparative linguistic studies may also be necessary to determine the logic of syntax and the semantic structures of certain languages. Such studies would not only facilitate language teaching but also might indicate how innovations should be proposed in order to make them

acceptable. Finally, an inquiry may be made in several countries about the way neologisms are formed which are of interest to work-orientated literacy.

7. Research on the effects of a literacy project

XIII. Certain aspects of a literacy project can be studied fully only after a considerable lapse of time. This, however, does not mean that no research work should be done immediately. The contrary is true. For instance, the evaluation of a project should start during the planning stage and continue throughout the life of the project, although the final evaluation must be postponed until after the project has been completed⁽¹⁾.

The same is true of comparisons of methods and of the economic impact of a project, as well as of certain other effects, which can be studied globally only after the direct influence of the project has ceased and its continuing impact can be observed. Studies, therefore, must be carried out during the period when the project is under execution and after its completion, when it will be possible to make a final computation of its costs, as well as of its contributions. In that connexion, it should be noted that some time may elapse after the completion of the project before all of its benefits manifest themselves.

In comparing methods of literacy teaching, research could help to ascertain whether a negative correlation exists between the extent to which a method requires active participation of the adult learners and the number of drop-outs.

XIV. The hypothesis that exposure to one of the mass media tends to create interest in acquiring more information through other mass media should be tested by comparing groups of illiterates and individuals who have become literate through work-orientated literacy classes.

XV. Finally, studies are necessary on the effect of functional literacy on adult participation in the economic life of the community. Such might compare and contrast communities of similar economic resources and number of inhabitants, but with different rates of literacy.

Annex I List of participants

Annex II Other suggestions not mentioned in the text

Annex III Research undertaken or sponsored by Unesco in 1968.

(1) Since the problem of evaluation is being studied by a special panel of experts, the present group has given only passing attention to this subject.

ANNEX I/ANNEXE I

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ANNEX II

FURTHER SUGGESTIONS FOR LITERACY RESEARCH

The meeting of experts in literacy research held at Unesco House from 8 to 12 July 1968 agreed that studies on the topics listed below would be useful, and recommended that universities, research institutes, government departments, non-governmental organizations and individuals interested in research about literacy take up one or more of these projects, or one of the priority projects mentioned in the text of the meeting's report.

The subjects are listed in approximately the same order as those in the text, i.e. the order in which a work-oriented functional literacy project develops. For research activities, this order is not a strict one, and there is no need to begin with the topics mentioned first. Although no distinction is made according to disciplines, for ready reference an indication of the nature of the study is often given through a letter in the margin which identifies studies which are mainly economic (E), psychological (P), or sociological (S).

I. Preliminary research projects which may be of particular help in planning literacy programmes

- (E) Comparison of the output of similar enterprises which employ workers of different levels of literacy. In such studies other variables should be held constant as far as possible.
- (E) Analysis of the extent to which enterprises fail to use available forms of organization and production, because of illiteracy among their workers.
- (E) Studies to determine the types of work in urban and rural areas, which could be performed more efficiently by functionally literate workers, compared with studies of types of work where functional literacy would make no significant difference.
- (S) A study to determine: (i) whether the rate of literacy and retention is higher in urban areas than in rural areas because of better opportunities for schooling; or (ii) due to the fact that rural migrants to the cities feel the need for literacy more keenly than those illiterates who have stayed behind in rural areas.
- (P) Comparative studies, in different cultural areas, of magazines that deal regularly with various topics, and pamphlets which concentrate on one subject, with regard to their acceptability as reading material and their effectiveness in bringing about desired economic and social changes.
- (S) Studies in countries with different levels of literacy to test whether the research finding in Argentina, that illiterate migrants to towns first start reading comics, then gradually switch to romantic novels and end up, in some cases, reading the classics (all in cheap editions) would apply elsewhere.
- (S) Experiments to determine the extent to which physical conditions (e.g. availability of interesting reading material, time and a place for reading, enough light in the evening, etc.), or individual family or community interests are decisive in creating reading habits.

Comparative studies of technology to determine which combination of subject matter would provide the maximum common core for work-oriented literacy courses, for persons in a variety of occupations.

- (P) Experiments in the selection and training of teachers and "change agents" for work-oriented literacy classes to determine:
 - (a) which type of instructors (school-teachers, foremen, skilled farmers, "change agents" or combination of these) would be most effective in varying teaching situations (e.g. situations where mass media are and are not used; in different physical settings, etc.);
 - (b) the balance required between general and technical knowledge in training courses for literacy instructors.

- (E) Studies to determine the most suitable ways of financing literacy programmes (by State or local government authorities, enterprises, voluntary societies, fees from adult learners, special taxation, or any combination of these means, etc.).

II. Research to be undertaken during the execution of a literacy project (and often to be continued after its completion)

Studies of the organizational and administrative framework of work-oriented literacy projects, e.g. inspection, co-ordination of government services, and co-operation with voluntary agencies.

- (S) A study to test the hypothesis that the type of illiterate learners varies in accordance with the existing level of literacy in the area concerned. Such a study may indicate that innovators are the most likely recruits for classes in low literacy areas, a variety of social groups in middle-rate areas, and the socially handicapped in high-rate areas.

- (P) Experiments to ascertain whether the language used by mass media is understandable to the audience.

Experiments to determine the types of radio and television programmes for work-oriented literacy projects, which are most suitable for different groups (instructors, somewhat advanced learners, beginners); and for purposes such as propaganda, main substance, additional programmes, follow-up, etc.

Comparative studies to determine the minimum number of participants required for acceptable broadcast efficiency in work-oriented programmes for literacy, which are beamed to one occupational group only. Those studies should be carried out in different economic and social contexts, and should take into account the possibility of the multiple use of a single radio frequency.

A set of case studies to determine the type and importance of the changes which may take place in the behaviour of participants in work-oriented literacy courses, and possibly also in the behaviour of members of their families.

- (S) A comparative study, in some countries, of the ways in which changes resulting from a work-oriented literacy course can best be measured, and the extent to which such testing could be applied more generally. Such changes are much more difficult to measure than educational achievement or rises in income.

A long-term comparative study of two illiterate groups with the same occupation, one of which attends a functional literacy course based on this particular occupation and another which attends a similar type of vocational training course which does not include literacy. The purpose of the study would be to ascertain the differences which develop between the two groups.

- (S) A study of the dynamics of groups formed to attend and discuss radio or television broadcasts in support of a work-oriented literacy project. Its purpose would be to appraise the extent to which members of such groups form new relationships, and tend to support the practical application of the recommendations made in the radio and television broadcasts.

- (S) Experiment to increase the number of readers through the production of more attractive agricultural or health pamphlets, and to enhance the status value of innovations adopted (such as completing literacy courses) by issuing attractive certificates.

- (P) Experiments to study the extent to which specially designed short courses may revive lost literacy in varying social/economic settings.

An experiment, to be carried out in different cultural environments, to study the impact of small local rural newspapers or news-sheets on new literates. Do such publications arouse their interest and encourage them to read, thus preventing their relapse into illiteracy? Do they help new literates to improve their ability in reading, and do they act as agents which promote desirable social and economic changes?

- (S) Studies in different cultures on the extent to which the community and its leaders react to and are involved in work-oriented literacy projects, concerning both male and female participants.

III. Research which may be undertaken mainly after the completion of a literacy project

- (P) Experiments in cultures with different types of script to see how far the time and effort saved by imparting reading ability only may be outweighed by: (a) the disadvantage of being unable to write; and (b) a relatively quicker relapse into illiteracy than in cases where writing is taught equally.

A comparative study, carried out in different cultural areas, of the immediate appeal, effectiveness, long-term influence on retention, and relative cost of the use of radio and television broadcasts in work-oriented literacy programmes.

- (P) Studies, carried out in different cultural environments to appraise the effect of literacy courses on the learners' accuracy, sense of time and measuring ability, as well as the general psychological effects of such courses.
- (E) Cost/benefit studies at the national, community, enterprise and individual level, to compare the income of literates and illiterates in relation to the cost of achieving different levels of literacy. (Distinctions should be made, whenever feasible, between "functional literacy", "Traditional literacy" and simple knowledge of reading only).
- (E) Cost/effectiveness studies which compare nation-wide literacy campaigns and selective, work-oriented literacy projects, in relation to a set of educational and occupational indices.
- (E) Cost/effectiveness studies comparing different methods and techniques of teaching (including mass media), which take into account the time required to attain a certain level of education and of occupational skills, as well as the level of retention achieved.
- (S) Studies, in various cultures, to test the hypothesis that, while the first few stages in the process of adopting innovations may be brought about by the use of mass media, personal contact is usually needed to secure actual adoption.
- (E) Research on the rôle of functional literacy in facilitating the transition from subsistence to market economy.

In addition to these suggestions about research in functional literacy projects, the panel of experts also recommended that Unesco:

1. Publish in printed or mimeographed form a selection of the most interesting items in available bibliographies on literacy research.
2. Prepare a publication for research institutions interested in literacy research, based on the suggestions included in this report.
3. Draw up a list of research institutes interested in literacy research, which should include government departments, university faculties, foundations, professional associations, missionary organizations, etc.
4. Arrange contacts between directors of research of the institutions listed under item 3, in order to facilitate working relationships and co-operation in making research studies.
5. Provide the overhead cost of cross-national studies undertaken by institutions associated with Unesco in promoting research in the field of functional literacy.
6. Render clearing-house services to research institutions engaged in the coining of neologisms. This is a problem in both Africa and Asia, so that an interchange of materials as well as of the staff engaged in such work would be of great value.
7. Prepare a standard financial framework which should be used in all Experimental Projects to facilitate an analysis of their costs.

ANNEX III

RESEARCH AND EXPERIMENTS IN LITERACY
PLANNED OR UNDERTAKEN BY UNESCO IN 1968

1. Studies on the economic implications

- (a) Morocco. A study is to be carried out on the economic effect of functional literacy on workers in the phosphate mines. Started in 1968, it is to be completed in 1969.
- (b) Bombay. A similar study undertaken by Bombay University in 1968 on the effect of traditional literacy, with an effort to measure more precisely workers' productivity, is expected to be completed in 1969.
- (c) Algeria. A study on the economic and psychological effect of functional literacy in SEMPAC (flour enterprise). The impact on the enterprise is equally being studied as far as feasible. This is a longitudinal study on a batch of 80 workers who started a 4 month full-time course in August 1968.

2. Studies on the retention of acquired literacy

- (a) Tunisia. The Harvard University Research Group undertook in 1967, in a small town, a study of persons who, in the years before or after 1963, completed primary school without having received further education, to see what their present level of literacy is, how far it is being used in their work and whether literates are in a better economic position than illiterates. Samples of persons who, as adults, have completed literacy courses were added to that study in November 1968. Preliminary results are expected in December 1968. A full socio-economic study on a national sample will be undertaken in January 1969 and should be completed in August 1970.
- (b) Malaysia. The Faculty of Education, University of Malaya, Kuala Lumpur, is undertaking a similar study. (1) It is intended that the same research will be carried out in a low-literacy area in India to see how far the level of literacy influences motivation. Both studies, starting at the end of 1968, will be completed in the course of 1969.

3. Experimental studies

- (a) Jamaica. At the request of the government, Professor Neri, adult education and literacy expert, visited the country in February 1968 and found that the government educational television and radio had already started interesting literacy projects, which are being evaluated. An expert is assisting in the improvement of these projects (November 1968 - October 1969), while the University of the West Indies has been requested to help in the evaluation of the experiment initiated by the expert. A comparison between the effects of radio and television is foreseen.
- (b) Uganda. The government has expressed great interest in a project of publishing a number of rural newspapers which would be meant for a small group of villages and mainly produce local news items, as well as useful advice for farmers. The purpose is to stimulate reading interest and so avoid relapse into illiteracy, besides assisting in the improvement of farming methods. The Makerere Institute of Social Research has accepted responsibility for the evaluation of the experiment, which is assisted by an expert who left for Uganda in October 1968 on a one-year mission.
- (c) Another experiment is to be undertaken in early 1969 by the Unesco Centre CREFAL (Mexico) to impart functional literacy with the use of "radiovision" (a combination of radio broadcasts and the classroom project of slides).

(1) In a high literacy area

4. Teaching materials

Nigeria. A set of 15 instructional booklets prepared in 1967-1968 for imparting functional literacy to a group of tobacco growers is being evaluated by the Institute of African Adult Education, Ibadan. This project will be completed by December 1968.

5. Teaching methods

- (a) Algeria. An experiment will be carried out to see how far programmed material, used in correspondence courses, could help semi- and neo-literates to achieve full functional literacy, as well as literacy teachers.
- (b) Brazil. Workers in a mining centre, 25 illiterates and 25 semi-literates, are imparted functional literacy. With the help of a computer, the most frequently used syllables are identified in day-to-day language and technical terms, so as to enable the expert to prepare the reading material in the most efficient way. This experiment was started in April 1968 and is expected to be completed in December of this year. It is evaluated by the University of Belle Horizonte.
- (c) Tunisia. A method, based on the agricultural cycle, is being developed to impart functional literacy to 180 members of a farmers' co-operative. Started February 1968 and to be completed in November 1968.
- (d) Venezuela. A two-month mission, consisting of an agricultural economist, a sociologist (anthropologist) and an agricultural educator, will study in a small area, early 1969, the specific economic, social and educational problems connected with the area's development, so as to identify the special points to be stressed in the material to be used in a functional literacy project.

