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ABSTRACT

A program of functional literacy, as an integral part of the program of Farmers' Training and Functional Literacy, is presented. Its objectives are: (1) to increase the attainment and use of literacy skills, and (2) to bring about the socio-economic change on the individual with particular emphasis on changes in agricultural production. The specific objectives of this pilot study were to obtain the qualitative and quantitative measurements of: (1) the attainment and use of literacy skills, (2) the impact of the program on the individual, and (3) the teaching/learning situation. The study was conducted on an "ex-post-facto" basis using experimental and matched control groups. Primary data was gathered by a team of seven interviewers. The experimental group consisted of adult farmers, drawn from 12 villages. Factors used for measurement purposes covered the following areas: (1) the literacy skills attained by the participants, (2) the impact on agriculture of the knowledge of improved farm practices, (3) the teaching learning situation. Findings include: (1) At least 80% of the participants achieved literacy skills of varying degrees of utility; and (2) The final rate of adoption of agricultural practices among the participants and control groups and its relationship to literacy ability indicated that the rate of adoption among the functional literates and control illiterates tended to vary directly with literacy level. (CK)

FARMERS TRAINING

AND

FUNCTIONAL LITERACY

PILOT EVALUATION STUDY IN LUCKNOW DISTRICT

MINISTRY OF EDUCATION AND SOCIAL WELFARE
GOVERNMENT OF INDIA, NEW DELHI, 1971

FARMERS TRAINING AND FUNCTIONAL LITERACY

Pilot Evaluation Study of Functional Literacy Project in Lucknow District

(Non-Technical Report)

GOVERNMENT OF INDIA

MINISTRY OF EDUCATION & SOCIAL WELFARE
DIRECTORATE OF ADULT EDUCATION

April—1971

FOREWORD

One of the recent developments, which is of great significance to countries like ours, is the idea of linking education to development, particularly for increasing production. In the field of adult literacy, this has led to the emergence of the concept of functional literacy or work-oriented literacy. Based on this concept, we have initiated Farmers' Functional Literacy Project (Kisan Saksharata Yojana) which is one of the three components of the integrated programme of Farmers' Training and Functional Literacy jointly sponsored by the Ministries of Food and Agriculture, Information & Broadcasting and Education on a pilot basis in 100 High Yielding Varieties districts.

2. Being a pilot project, its evaluation is essential, not only to assess the achievements in terms of the stated objectives, but also to provide continuous feed-back for programme improvement. An attempt in this direction was made by making an evaluative study of the project in Lucknow district of Uttar Pradesh in a scientific and systematic manner, during November-December, 1970.

3. The study throws up some very positive results. It has, in the first instance, presented evidence that the programme of Functional Literacy has developed literacy skills of varying degrees of utility, disseminated knowledge of improved agricultural practices, speeded up the adoption rate of these practices and effected certain attitudinal changes. There is also abundant evidence to indicate that the Functional Literacy training has a positive influence in making an impact on agricultural knowledge and adoption of innovations. These indeed are very encouraging results.

4. The study has provided us valuable data on the basis of which the content and quality of the programme can be improved and the areas which need to be strengthened.

5. This study has helped us in testing out methods and procedures which can be used in an expanded evaluation scheme.

6. A committee of Direction consisting of the following, was assigned the overall responsibility of conducting the pilot evaluative study:

(1) Dr. S. N. Saraf, Director, Bureau of Pilot Projects, Adult Education & Statistics, Ministry of Education.

(2) Dr. T. A. Koshy, Director, Directorate of Adult Education, Ministry of Education.

(3) Mr. Marion T. Hedegaard, UNESCO Expert on Functional Literacy Evaluation.

(4) Dr. (Mrs.) S. Mulay, Deputy Director, Directorate of Adult Education, Ministry of Education.

(5) Mr. R. S. Mathur, Senior Technical Assistant, Directorate of Adult Education, Ministry of Education.

The design of the study, the schedules and tests were prepared by Dr. (Mrs.) S. Mulay in consultation with Mr. Marion T. Hedegaard. In the preparation of the tests, Shri K. B. Rege, Assistant Director, rendered valuable assistance. The field work, consisting of data collection, administration of literacy tests, etc. was done by Mr. R. S. Mathur, Senior Technical Assistant and Mr. S. V. Gupta, Technical Assistant in the Directorate assisted by Messrs R. S. Singh, S. N. Rai, P. P. Sharma, R. S. Kushwaha and Bahau, Investigators specially appointed for this purpose. They also assisted in tabulation and other work in connection with the study. Analysis of data, their interpretation and drawing conclusions was done by Dr. (Mrs.) S. Mulay in collaboration with Mr. Hedegaard assisted by Messrs R. S. Mathur and S. V. Gupta. Mr. Y. N. Saxena, Sub-District Inspector of Schools in Lucknow District and Mr. K. S. Shrote, Principal, Farmers Training Centre at Bakshi-Ka-Talab cooperated in the field work and the U.P. Government agreed to our request to select Lucknow District for this evaluative study. The first draft of this non-technical report was prepared by Mr. Hedegaard in collaboration with the concerned officers in the Directorate of Adult Education.

This draft was revised and edited by the Committee of Direction. This non-technical report is a condensation of a formidable mass of data which is being presented in the technical report.

7. We would like to take this opportunity of sincerely thanking all those who were directly or indirectly involved in the field work, analysis and collection of data. We would also welcome comments and suggestions on this report, so that the methods and techniques of evaluation can be improved.

8. I have great pleasure in releasing this report which, we hope, would be of considerable interest to adult educators, social scientists, educational planners and administrators in this country and abroad.

S. N. SARAF
Director,
Bureau of Pilot Projects,
Adult Education & Statistics,
Ministry of Education & Social Welfare

New Delhi
April 22, 1971

CONTENTS

APPENDICES

I. INTRODUCTION

1. The need for a substantive reduction of illiteracy in India is apparent. Although the percentage of the literate adult population has nearly doubled since 1951 rising from approximately 17 per cent to about 30 per cent in 1971, the number of illiterates has increased from 298 million to 386 million during the same period mainly due to inadequate provision for literacy programme and because of growth in population. With this population explosion has come a corresponding need for increased food production—another national priority. Fortunately, the development of new high yielding varieties of foodgrains and improved agricultural technology have made this achievable. This advance in turn requires that farmers have a higher level of technological knowledge and skills. The obtaining of these is made possible only through an effective functional educational programme of demonstration and mass media. The full utility of such a programme can be realised only by the literate.

2. It was with the attainment of the 'Green Revolution' as an objective in mind that the development of the High-Yielding Varieties Programme was undertaken. To support this programme, a comprehensive educational effort was initiated known as the Farmers Training and Functional Literacy Project in 100 selected districts. This Pilot Project, conceived and initiated in 1967, utilised an integrated approach in selected areas with the Ministry of Agriculture responsible for all agricultural demonstration activities and farmers training, the Ministry of Education assuming responsibility for establishing Functional Literacy Centres and the Ministry of Information providing radio support through their farm broadcast units. Two UN agencies, the FAO and UNESCO with financial assistance from the UNDP contribute a very limited amount of expertise, supplies and training assistance.

1M of E&SW/71—3

3. The Functional Literacy Project, as an integral component of the Programme of Farmers Training and Functional Literacy and conceived as part of UNESCO World Experimental Literacy Project, has had a rapid expansion since its modest beginning in three districts in 1968. This grew to 10 districts in 1969, 25 in 1970 and the programme is expected to be operating in 60 districts by the end of the 1970-71 financial year. During this period of time, district supervisors and teachers were trained in all the districts where the programme has been operative. Many reading and teaching materials in the regional languages have been printed. About 1,954 classes have been completed and 2,983 are presently being conducted. Most important of all, 51,304 farmers have reported to have been made literate, while another 64,577 are presently undergoing literacy, training. By the end of the Fourth Plan, it is expected to cover about 1 million illiterate farmers under this programme.

II. PURPOSE OF THE STUDY

4. The programme of functional literacy, as an integral part of the programme of Farmers' Training and Functional Literacy, is expected to contribute a great deal to the socio-economic well-being of rural India. The broad objectives of the functional literacy component, as conceived in the development of the basic programme guidelines are:

(i) to increase the attainment and use of literacy skills;

(ii) to bring about the socio-economic change on the individual with particular emphasis on changes in agricultural production.

In establishing the Farmers Training and Functional Literacy Project, one of the essential concepts was the development of an objective evaluation scheme for programme improvement.

5. This study attempts to determine the extent to which it has been possible to achieve these objectives through a systematic evaluation which was carried out in Lucknow district where the integrated programme of Farmers Training and Functional Literacy has been in operation since 1968. The study anticipated three major benefits:

(1) Tested procedures and methodology for an expanded evaluation programme.

(2) Experience for national level staff in a comprehensive evaluation programme.

(3) Preliminary information useful in the guidance of an expanded and more intensive Functional Literacy programme.

6. The specific objectives of the Pilot Study were to obtain qualitative and quantitative measurements of:

(1) The attainment and use of literacy skills.

(2) The impact of the programme on the individual with particular emphasis on changes in agricultural production.

(3) The teaching/learning situation.

7. In order to achieve these objectives, a comprehensive study, to measure these accomplishments and change in both purposes of evaluating the programme of functional literacy in Lucknow district was made and the following indicators were developed and used:

A. Literacy attainment

(i) Level of reading ability

(ii) Level of writing ability

(iii) Level of performance in arithmetic

(iv) Degree of comprehension

(v) Degree of application of reading and writing ability

(vi) Number of drop-outs.

B. Living standard

(vii) Increase in the number of material articles contributing to the standard of living.

C. Professional competence

(viii) Knowledge regarding high-yielding varieties of wheat and jawar.

(ix) Adoption of recommended farm practices.

D. Relation towards means of mass communication and personal sources

(x) Exposure to mass media.

(xi) Exposure to personal sources of information.

E. Attitude towards education

(xii) Attitude towards adult literacy.

F. Social participation

(xiii) Participation in formal organisations.

III. DESIGN OF THE STUDY

8. No socio-economic bench mark data had been obtained for the area under study. In the absence of such a data the study, of necessity, was conducted on an *ex-post-facto* basis using experimental and matched control groups.

Sampling Procedure

9. The experimental group consisted of adult farmers, drawn from 12 villages in Lucknow district, who had attended functional literacy classes. Six of these were in Bakshi-ka-Talab block and had completed three batches of functional literacy training during 1968-69 and 1970. The other six villages were equally divided among the three adjacent blocks of Sarojini Nagar, Mohanlalganj and Gosainganj. The total number of participants in the experimental group of 240 men respondents were equally divided among the three batches.

10. Four villages (one from each block) were selected as control group from which 80 illiterate male respondents were randomly selected. The factors like demographic and socio-economic characteristics including age, occupation and land holding were mainly used to assume proper matching between the experimental and control group. An attempt was made to see that the experimental and controlled groups had the same characteristics and this is discussed in the paragraphs that follow. (For details *see* Appendix Table 1).

11. A brief description of the villages involved and the respondents background will provide a broad over-view of the social milieu and community structure of the study area. This has been discussed under the following heads:

(1) Size of the village.
(2) Age-grouping of the sample.
(3) Primary and Secondary occupations.
(4) Land holdings.

Size of the Villages

12. The 16 villages in the sample population, although not entirely homogenous in character, were thought to be typical of the area. Population ranged from 700 to 4000 and only three were reported to be located on a metalled road. In ten of the twelve experimental and two of the four control villages, primary school facilities were available while only one village had a Middle school. Farmers discussion groups were reported in ten of the experimental villages. Corporation pattern were similar in all villages with wheat being the dominant winter crop and rice the dominant summer crop.

Age-grouping

13. The age-grouping of the sample population indicated that well over 70 per cent of both groups were under 33 years of age and that the dominant age-grouping for the experimental group was that of 15—25 years. The relative youth of the functional literacy participants has to be kept in mind for a better understanding of subsequent analysis. (For details, *see* Appendix Table 2).

Primary & Secondary Occupations

14. Farming was the major occupation for both the experimental and control groups. Farm labour and other occupations together accounted for only a minor portion of the primary occupation for both groups. Of those having secondary occupations, farm labour accounted for about one-third in both groups, while other occupations accounted for about one-sixth. Nearly half of the experimental group did not have a secondary occupation compared to about one-third for the control which may indicate slightly larger percentage of full-time farmers among the experimental group. (For details *see* Appendix Table 4).

Land holdings

15. The majority of the respondents of both groups had land holdings between one and four acres. The total of these three size groups accounted for 57.5 and 55.0 per cent of the

respondents in the experimental and control groups respectively. Of particular interest are the few in the landless category which indicates that the large majority of the respondents were either well established farmers or a member of such a household. (For details *see* Appendix Table 5).

Methods of Data Collection

16. Primary data was gathered by a team of seven interviewers from 9th November to 12th December, 1970. They interviewed a total of 240 adult functional literacy participants using a comprehensive interview schedule for both groups and a series of simple literacy tests. The teachers and supervisors serving the area were also interviewed to obtain data relative to the teaching situation. Basic socio-economic data was obtained from Block records.

The Content of the Study

17. A large number of factors were used for measurement purposes. These covered the following areas:

(a) The literacy skills attained by the participants, their ability to use them and the existing teaching situation in the villages. These skills and their use were measured by a set of simple time/accuracy tests of reading, writing and calculation and the filling of a sample farm plan.

(b) The impact on agriculture was measured by testing through interview:

(1) the knoweledge of improved farm practices pertaining to wheat and jawar and

(2) the extent and level of adoption of these farm practices.

(c) The teaching/learning situation was measured by interview of the 12 teachers conducting the functional literacy classes.

IV. FINDINGS OF THE STUDY

18. The major findings of the study are presented in the light of their significance. For purposes of brevity, the three batches of respondents, who had undergone functional literacy training, have been combined and treated as one group in this non-technical report. In the technical report an attempt has been made to treat them separately. Detailed tables are limited to the appendix, so that those who wish to delve more deeply can do so. The findings of the Study have been summarized under the following heads:

(A) Literacy Attainments.
(B) The Impact on Agricultural Production.
(C) Changes in Attitude towards Literacy Acquisition.
(D) Social Participation.
(E) Exposure to Radio Programmes.
(F) Contacts with Extension Workers.
(G) The Teaching/Learning Situation.

A. Literacy Attainments

19. A concerted attempt was made to determine the literacy skills of the functional literacy participants through the administration of simple tests. These tests included time/accuracy measurements for reading, writing (by dictation or transcription) and simple arithmetic calculations. It also measured the ability of the respondents to use these skills in preparing a simple farm plan. Tests devised for these specific purposes were based on the instructional syllabi of the training programme. The following are briefly the findings of the study arranged under the heads:

(1) Reading ability.
(2) Comprehension of materials read.
(3) Writing skills.

(4) The use of literacy.
(5) Arithmetic skills.
(6) Drop-out rates.

Reading Ability

20. The reading ability of the majority of the participants ranged between 10 and 40 words per minute which included approximately 60 per cent of all respondents, while nearly 20 per cent could read faster than 40 words per minute. This indicates that at least 80 per cent of the participants had achieved literacy skills of varying degrees of utility. However, about 11 per cent could read only slowly and haltingly, while slightly under 10 per cent could not read even the simplest passages. (For details *see* Appendix Table 6). Although data from this study is far too limited to determine norms for acquisition of reading skills, it would seem that a reading skill of about 20—30 words per minute range, would be an expected mean or average. If 20 words per minute are considered to be a minimum acceptable level for reading skills, about 60 per cent of the participants have attained a satisfactory reading level.

Comprehension of Materials Read

21. This was tested by asking three simple multiple choice questions on the content of the reading test. Detailed analysis was not carried out but the average comprehension score of those who could read, was 2.09 out of a total of 300. (For details *see* Appendix Table 7). This provides an indication that the average participant could understand about two-thirds of what he was able to read.

Writing Skills

22. This was tested by dictating a short passage. Approximately, 24 per cent were not able to participate in the test, 16 per cent were able to write about two words per minute and 31 per cent between two and four words. In other words, about 29 per cent of the respondents tested could write more than four words per minutes. (For details *see* Appendix Table 8).

1 M of E&SW/71-2

23. The 57 respondents, who could not attempt dictation, were asked to copy a simple passage. Of these 48 or 80.8 per cent could copy reasonably well. This indicates that at least part of the difficulty in writing was due to the respondents inability to perform properly under the testing system. Therefore, it may be assumed that the writing skills measured may be undervalued to some degree.

The Use of Literacy

24. This was tested by having the respondents complete a simple farm plan. As might be expected it was necessary for the interviewers to explain in detail the use and content of the form. The results were scored on the basis of a maximum of 14 (which represented the number of items in the form). Of the respondents tested (240), 10 per cent could not attempt the form, nearly 18 per cent could correctly fill in less than six of the fourteen items, and an additional 15 per cent scored between six and ten items. However, nearly 40 per cent of the respondents had scores of 12 or more indicating a relatively high capability in this test (For details, see Appendix Table 9).

Arithmetic Skills

25. These were measured by administering a simple test on which no time-limits were set. This was scored on the basis of 100. More than one-fifth (22.5 per cent) of the respondents were unable to cope with any of the test problems, while an equal percentage were able to solve less than half of the total problems. However, 55 per cent were able to solve more than half of the total problems and nearly one-fourth had scores exceeding 80 (For details, see Appendix Table 10).

26. The interviewers observed that those respondents, who scored above 50, generally used systematic procedures as taught in school while those who scored below 50 relied to a large degree on simple digital and oral procedures. These observations imply the strong possibility of the lower scoring group obtaining their arithmetic skills from sources other than school or literacy classes.

Drop-out rates

27. These were calculated by participant interview, a drop-out being defined as anyone who was not attending class during the final weeks of teaching. Of the 240 respondents, only 42 or 17.5 per cent failed to attend class throughout the teaching period.

Recognising that such limited numbers provide limited substance for analysis, reasons for dropping out were classified. Adverse family circumstances were the most common reasons given (alleged or real) and was a contributing factor in more than three-fourths of the drop-outs. Fatigue in the evening (47.6 per cent) was another common factor, followed by work involvement (23.8 per cent) while disinterest, sickness, learning difficulties, class location and regularity of classes were relatively minor in importance. (For details, see Appendix Table 11).

B. The Impact on Agricultural Production

28. One of the major objective of the pilot study was to determine the effect of literacy training on agricultural production. To obtain a measure of this, an effort was made to determine among all respondents:

(1) their levels of knowledge of recommended practices, and

(2) to measure the rate of adoption of these practices.

29. Included in the interview schedules for both experimental and control groups were questions designed to determine the respondents' knowledge of the various practices recommended for the High-Yielding Varieties Programme and the degree to which these practices were being adopted. Wheat and Jawar (Sorghum) were used as the basic subject to be tested. The following are the results of the study arranged under the heads:

(1) Knowledge of recommended practices.

(2) Adoption of recommended practices.

Knowledge of Recommended Practices

30. On the basis of a test, it was found that the group, which had received functional literacy training, knew nearly twice as much about the recommended High-Yielding Varieties Practices for wheat as the illiterate group. In the case of Jwar, the experime_tal group had a mean score more than twice that of the control group but neither group had mean scores indicating that either group had more than minimum knowledge of recommended practices for Jwar. This may be explained by the fact that the area under study is not a Jwar producing area while Wheat is a major crop. Interest in Jwar therefore tends to be low with the resulting generation of knowledge also relatively low.

31. The relationship between literacy and knowledge of improved production pra_ _es for Wheat was worked out and it was found that 63.8 per cent of the illiterates had a low knowledge level compared with only 13.3 per cent of the literates. This indicated nearly a five-fold difference. It may also be noted that only 15.6 per cent of the high literacy ability group could answer two-thirds or more of the questions presented. (For details see Appendix Table 12).

32. Although knowledge tests are helpful in measuring the impact of literacy, the only true measure is the way in which this knowledge is applied to everyday life. Such a measure was made by questioning the farmer respondents on:

(1) their awareness of the practice (Does he *know* about it?)

(2) their interest (Has he gathered information?)

(3) their trial (Has he tried it?) and

(4) their adoption (Is he using it?)

33. The results, which related to recommended practices for wheat, for each of the four inputs like seed, fertilizer, implements and insecticides, indicated:

(i) The experimental group had a higher percentage who are either in or have passed through each of these stages than the control group.

(ii) There is less difference in the percentage of respondents in each of the stages succeeding awareness of interest, trial and adoption for the experimental group than there is for the control group.

In other words, a higher percentage of the functional literacy participants, who were aware of practices, have also adopted them. This means that the functional literacy participants, when compared with the control group of illiterates, were more aware of the recommended High-Yielding Varieties Practices and they had higher interest in learning more about them, and a larger percentage had tried and were practising them. A higher percentage of the respondents were in the adoption stage for the use of recommended seed than in the interest and awareness stage. The fact that this is much more evident in the control than in the experimental group is an evidence of the effect of literacy on agricultural production. In other words, a more orderly and intelligent process was undergone by those who undertook literacy training.

34. As in the knowledge test, the same pattern applied to Jwar. The same proportionate difference between the two groups was discernible but the percentage of the respondents in each of the stages was so low that these proportionate differences have little relevance.

35. The rate of final adoption of agricultural practices among the participants and control groups and its relationship to literacy ability indicated that the rate of adoption among the functionally literates and the control illiterates tended to vary directly with literacy level. For instance, over 90 per cent of the participants in the high literacy category were using seed of recommended varieties compared to 81.8 per cent in the medium and 74.1 per cent in the low. Perhaps the most important fact is that all three categories had a very substantially higher percentage who had an adoption rate of only 50 per cent. Particularly important is that the high literacy ability group had an adoption rate of nearly double that of the illiterate group. This phenomena is even more important for fertilizers, implements and insecticides. For example, the rate of adoption of

improved implements for those in the high literacy ability category was approximately eight times that of the control illiterates. In the low category, the adoption rate was nearly four times than that of the illiterate. Another significant point to be noted is that functionally literate farmers, who were participants of the first or second batch, had a better opportunity for adoption.

36. In summarizing the impact on agricultural knowledge and adoption of innovations, abundant evidence has shown the very positive influence of the functional literacy training. Even among those, who acquired very minimum literacy skills, a very measurable difference over the control group could be determined. The obvious conclusion, therefore, is that the functional literacy training received by the farmers in the sample population contributed very substantially to higher level of knowledge about High-Yielding Varieties Practices and an increased rate of adoption of these practices. As such, it can be credited with contributing to the advancement of increased agricultural producton.

C. Changes in Attitude Toward Literacy Acquisition

37. These were measured by presenting to respondents a set of statements being on the importance of adults acquiring literacy and to which they indicated their agreement, indecision or disagreement. These were scored so that the maximum of eight indicated an attitude placing a very high value on literacy, a score of zero—would indicate a high disfavour towards literacy and a score of four, total indifference or indecision. The results indicated that:

(i) both groups were favourably disposed to the acquisition of literacy, and

(ii) the attitude of the experimental group was significantly more favourable than that of the control group.

38. Since this is an *ex-post-facto* study, it was impossible to determine the precise effect of literacy on changes in attitudes. However, if the control and the experimental villages were ade-

quately matched (and these results tend to support this assumption) it may be inferred that participation in the Functional Literacy class had a very significant effect on attitude change. If this is the case, the development of a more positive attitude towards literacy acquisition may make for a more positive attitude toward other types of development. Such an assumption is supported by the rate and level of innovation adoption previously discussed. Such innovation is a true reflection of attitude.

D. **Social Participation**

39. The level and degree of change in social participation of the two groups was measured by inquiring into the respondents' past and present membership in six types of rural organisations. Among the Functional Literacy participants, 37.1 per cent had been members of one or more of these organisations before their literacy training, compared to 42.5 per cent at the time of investigation. Among the control respondents, the corresponding percentages for a similar time differential was 32.5 and 37.5 per cent. Although the level of participation was higher for the experimental than for the control group, there was little difference in the degree of change. It indicates that a high level of social participation in a community may be a predisposing factor for the organization of a Functional Literacy programme. (For details see Appendix Table 13).

E. **Exposure to Radio Programmes**

40. In order to determine the effect of the programme on radio listening all respondents were asked about their radio listening habits during a typical week. The information collected revealed that approximately 60 per cent of the functional literacy participants listened to radio programmes compared to only 35 per cent of the control group. A much higher percentage of the functional literacy participants listened to agriculture and general programme than the control group. The control group apparently viewed radio more as an entertainment media than did the experimental group, as indicated by the dominance of listeners of control group to that type of programme. The experimental group had greater interest in informational type programmes than the control group. The

radio exposure of the experimental group of listeners was substantially higher than that of the control group.

F. Contacts with Extension Workers

41. In order to obtain a measure of the influence of literacy training on contacts with agricultural extension workers, respondents were questioned on the frequency of discussions with extension workers and other agricultural development officers. It was found that the percentage of total contacts of the experimental group was well over two times than that of the control group, while the percentage of the experimental group having frequent contacts was well over three times greater than that of the corresponding control group. This indicates that the integrated programme is being realized to some degree.

42. The respondents were also questioned on whether or not the information they received was adequate and/or timely. In the experimental group, 90.5 per cent indicated that the information was both adequate and timely while in the control group 83.3 per cent indicated it was adequate and 66.7 per cent indicated it was timely. This indicates that the functional literacy participants could understand the extension workers better than the control group and that they made inquiries in time to utilise the information effectively.

43. The village level worker (*Gram Sewak*) was the only person contacted with any degree of regularity, accounting for over 90 per cent of the contacts for both groups.

G. The Teaching/Learning Situation

44. Because of the limited time available, and because no classes were being actually conducted during the time of interviewing, limited data was obtained regarding the teaching/learning situation. However, there was sufficient data supplied to make a general description of the situation.

45. Data was obtained through interview about the 12 teachers conducting the literacy classes. They were young as a group, with 9 of the 12 (75 per cent) between 25 and 35

ars of age, two were between 35 and 40 and the other was 56 years old. Six (50 per cent) of the teachers were middle pass and only one was intermediate. Eight of the twelve had undergone Hindustani Teachers Certificate/Basic Training Course training; one had qualified for Junior Teaching Certificate while three had no formal training in education prior to their assignment as functional literacy teachers. All the teachers were experienced with ten of the twelve having taught between 5 and 10 years, one had only 3 years while the older teacher 25 years. Their experience also varied in nature with six having taught in three or more locations, and four had taught at only one location. All teachers had other full-time teaching jobs with ten of the twelve teaching in primary schools and the other three in middle schools.

46. Ten of the twelve teachers reported receiving some training in preparation for their assignment to the functional literacy classes. Six were trained at the Extension Training Centre in Bakshi-ka-Talab while four received training from their supervisors (who had previously undergone training). The course work included special teaching methods for adults, technical aspects of recommended agricultural practices, village survey procedures and a general orientation to the concepts and practices of the functional literacy programme.

47. The pay of these teachers for their regular jobs was Rs. 100 per month for five and Rs. 125 for the other seven. They also received an honorarium of Rs. 25 per month for teaching the functional literacy classes.

48. In Lucknow, district supervisors were appointed to assist in implementing the programme with one supervisor to every ten centres. In the course of the survey, four of the five supervisors with responsibilities in the area were contacted for assistance and information. As with the teacher all of these supervisors had full-time teaching jobs, all of them being middle school teachers in the area. They were older and more experienced than the teachers ranging from 37 to 49 years, had more training with three being intermediate pass,

one graduate and one postgraduate. All of them taught agricultural subjects and had received special training in agriculture in their formal schooling. They had also received special orientation and subject matter training prior to assignment as supervisors at the Department of Adult Education in New Delhi. The supervisors reported an average monthly salary of Rs. 350 for their regular teaching assignments plus Rs. 50 honorarium each month for their supervisor responsibilities.

49. Both teachers and supervisors had a substantive background in practical agriculture since most of them were practising farmers at least to some degree. They had received additional information from field extension workers and from the Farmers Training Centre in Bakshi-ka-Talab.

50. The facilities provided for holding the classes varied a good deal. Four of the teachers felt that the buildings were unsuitable and inadequate particularly during the rainy season. They also indicated a need for additional audio-visual and demonstration material and safe storage for all teaching materials. In the village areas it is often difficult to obtain note-books, ruled paper, pencils, and in some places kerosene oil. No standard provision has been established for supplying and financing these and in numerous occasions some of these had to be purchased out of the teachers modest honorarium.

51. In general, teachers felt a need for more training in technical agriculture and in methods of teaching literacy to adults. They expressed a need for additional reading materials, particularly some which could be entertaining in nature in addition to being instructive. They also felt that the primers needed to include locally used words, shorter sentences and better arrangement of subject matter.

52. Supervisors reported great difficulty in performing their job adequately. Distances involved total dependence on bicycles and public conveyance, a degree of danger in travelling alone at night plus a heavy regular work load were reported as major problems.

53. All teachers (except one) and supervisors reported that village leaders had a very favourable attitude towards the functional literacy classes. These leaders felt that the programme had a beneficial influence on:

(1) dissemination of knowledge of improved agricultural practices;
(2) increasing agricultural production;
(3) achieving literacy skills; and
(4) rural uplift in general.

V. GENERAL CONCLUSIONS

54. The Lucknow Pilot Study has served as a pilot in the true sense. The major benefits expected have been realized. The study has resulted in tested methods and procedures which can be used in an expanded evaluation scheme. It has provided valuable experience for staff members so that future aspirations for evaluation programmes and realism in respect of evaluation are not in conflict. Most important, it has provided some feed back on the progress of the programme. There are a number of observations which can be made and inferences drawn which bear on:

(1) development of a comprehensive evaluation programme, and

(2) success of the functional literacy programme.

Development of a Comprehensive Evaluation Programme

55. Proper sampling procedures, the selection of areas and obtaining credible data need to be emphasised. Continuing supervision by professionals trained in evaluation must be constantly maintained. There is also a need for additional specialists in analysis and design if evaluation work is proposed to be expanded. There is a need for more observation by trained personnel of the teaching/learning situation. Highly selective procedures must be employed which will provide condensed data capable of being expanded to meet all analysis needs. A solid foundation has been laid for truly productive evaluation studies. Only through such studies can the results of the functional literacy programme be adequately appraised and intelligent programme direction realized.

Success of the Functional Programmes

56. There are several conclusions that can be drawn which may be useful in directing the future of the functional literacy

programme. This report has presented evidence that the programme has been efficacious in four major areas: (1) developing literacy skills of varying degrees of utility, (2) disseminating knowledge of improved agricultural practices, (3) speeding up the adoption rate of these practices, and (4) effecting certain attitudinal changes. This assumes special significance when we find that over 90 per cent of the Functional Literacy participants belonged to scheduled caste and other backward classes. Although these indications are of a positive nature the study also raises issues of concern which need thoughtful study.

57. The increase in level of knowledge of recommended agricultural practices has been influenced by the Functional Literacy programme. However, thoughtful consideration needs to be given teaching materials and course content so that its relevancy is assured at the village level.

58. The effect of the Functional Literacy programme on the adoption of improved practices is a profound one. However, such influence places a great responsibility on the teachers to provide not only relevant and accurate facts but complete and conclusive information. It also demands a high degree of coordination with technical agricultural specialists so that the dissemination of such information can be assured.

59. The effect on attitude changes, though difficult to measure with precision, may be the most profound in the long run. The degree to which these attitudinal changes result in an increased social productivity for the village and larger community will be the ultimate value test for the Functional Literacy programme.

APPENDICES

TABLE 1

Sample Blocks, Villages and Respondents

S.No.	Block	Experimental Group		Control Group	
		Villages	Respondents	Villages	Respondents
1	2	3	4	5	6
1.	Bakshi-ka-Talab*				
	Batch I	6	80	1	20
	Batch II		80		
	Batch III		20		
2.	Sarojininagar	2	20	1	20
3.	Mohanlalganj	2	20	1	20
4.	Gosainganj	2	20	1	20
	TOTAL	12	240	4	80

*Only Bakshi-ka-Talab had respondents in all batches since 1968. All other villages had classes in 1970 only.

TABLE 2

Distribution of the Respondents by Age

S. No.	Age-Group	Experimental Group							
		Batch I		Batch II		Batch III		Total	
		No.	%	No.	%	No.	%	No.	%
1	2	3	4	5	6	7	8	9	10
1.	15—25	37	46.25	38	47.50	35	43.75	110	45.83
2.	25—35	35	43.75	25	32.50	28	35.00	89	37.08
3.	35—45	7	8.76	12	15.00	13	16.25	32	13.34
4.	+	1	1.25	4	5.00	4	5.00	9	3.75
	TOTAL	80	100.00	80	100.00	80	100.00	240	100.00

TABLE 3

Distribution of Respondents by Caste

S. No.	Major Castes	Experimental Group						Total	
		Batch I		Batch II		Batch III			
		No.	%	No.	%	No.	%	No.	%
1	2	3	4	5	6	7	8	9	10
1.	Brahmin	...	...	1	1.25	...	...	1	0.42
2.	Thakur	1	1.25	...	...	...	...	1	0.42
3.	Kayastha	1	1.25	...	...	1	1.25	2	0.86
4.	Mohammaden	10	12.50	8	10.00	1	1.25	19	7.8
5.	Backward Classes	37	46.25	44	55.00	34	42.50	115	47.8
6.	Scheduled Castes	31	38.75	27	33.75	44	55.00	102	42.7
	TOTAL	80	100.00	80	100.00	80	100.00	240	100.00

TABLE 4

Primary and Secondary Occupation of the Respondents

(By Percentage of Respondents)

S. No.	Occupation	Experimental N-240		Control N-80	
		Primary	Secondary	Primary	Secondary
1	2	3	4	5	6
1.	Farming	93.3	4.6	85.0	8
2.	Farm Labour	2.5	32.9	5.0	3.75
3.	Other	4.2	16.6	10.0	18.75

45.8 per cent of the Experimental Group and 33.75 per cent of the Control Group did not have a Secondary Occupation.

TABLE 5

Land Holdings of the Sample Population

S. No.	Land Holdings	Experimental		Control	
		No.	%	No.	%
1	2	3	4	5	6
1.	Landless	5	2.1	3	3.7
2.	Below 1 acre	17	7.1	11	13.7
3.	1-2 acres	42	18.3	20	25.0
4.	2-3 acres	51	21.2	18	22.0
5.	3-4 acres	43	17.9	6	7.5
6.	4-5 acres	28	11.7	6	7.5
7.	5 acres and over	52	21.7	16	20.0
	TOTAL	240	100.00	80	100.00

TABLE 6

Words Read Correctly by Participants

S. No.	Words per Minute	No.	%
1	2	3	4
1.	0*	22	9.2
2.	Below 10	28	11.8
3.	10—20	50	2 8
4.	20—30	61	25.4
5.	30—40	33	13.8
6.	40—50	15	6.0
7.	50—60	12	5.0
8.	60—70	6	2.5
9.	70—80	6	2.5
10.	80—90	3	1.3
11.	90—100	4	1.7
	TOTAL	240	100.00

*Could not attempt test.

TABLE 7

Comprehension Scores of the Respondents

(By Batch)

S. No.	Batch	Those Taking Test		Comprehension Score Average
		No.	%	
1	2	3	4	5
1.	I	75	93.7	2.24
2.	II	71	88.7	2.08
3.	III	72	90.0	1.96
	TOTAL	218	90.8	2.09

TABLE 8

Writing Speed of the Respondents

(Words written correctly per minute)

S. No.	Words per minute	Respondents	
		No.	%
1	2	3	4
1.	0*	57	23.8
2.	Below 2	38	15.8
3.	2—4	75	31.2
4.	4—6	35	14.6
5.	6—8	22	9.2
6.	8—10	8	3.3
7.	10+	5	2.1
	TOTAL	240	100.0

*Could not attempt.

TABLE 9

Farm Plan Exercise Scores

S. No.	Scores	Respondents	
		No.	%
1	2	3	4
1.	0*	25	10.4
2.	Below 1	9	3.7
3.	1—2	8	3.3
4.	2—4	14	5.8
5.	4—6	12	5.0
6.	6—8	24	10.0
7.	8—10	33	13.7
8.	10—12	47	19.6
9.	12—14	68	28.33

Maximum Score-14
*Could not attempt.

TABLE 10

Distribution of Scores of the Respondent in Arithmetic Test

S. No.	Score	Respondents	
		No.	%
1	2	3	4
1.	0*	54	22.5
2.	1—10	6	2.5
3.	11—20	8	3.3
4.	21—30	10	4.2
5.	31—40	9	3.8
6.	41—50	20	8.3
7.	51—60	20	8.3
8.	61—70	29	12.1
9.	71—80	27	11.3
10.	81—90	29	12.1
11.	91—100	28	11.7
	TOTAL	240	100

Maximum Score-100
*Could not attempt.

TABLE 11

Dropout of Respondents

(By Reason)

Sl. No.	Reasons	Respondents	
		No.*	Percent
1	2	3	4
1.	Distance from Class (too far)	4	9.5
2.	Lessons too difficult or subject not relevant	5	11.9
3.	Adverse Family circumstances	33	78.6
4.	Not interested in Literacy	7	16.7
5.	Too Tired	20	47.6
6.	No Spare Time	10	23.8
7.	Irregular Classes	3	7.1
8.	Sickness	5	11.90
	TOTAL	42*	100

*Many reported more than one reason.

TABLE 12

Literacy Ability and Wheat Knowledge Scores

(By Numbers and Percent)

Sl. No.	Literacy Ability	Knowledge Scores			
		High (18—27)	Medium (9—17)	Low (Below 9)	TOTAL
1	2	3	4	5	6
1.	High	23 (15.6)	111 (75.6)	13 (8.8)	147 (61.2)
2.	Medium	2 (3.0)	53 (80.3)	11 (18.2)	66 (27.5)
3.	Low	1 (3.7)	18 (66.6)	8 (29.7)	27 (11.2)
4.	Experimental TOTAL	26 (10.8)	182 (75.8)	32 (13.3)	240 (100)
5.	Control Illiterates	1 (1.2)	28 (35.0)	51 (63.8)	80

TABLE 13

Social Participation of Adults in Experimental and Control Group

Sl. No.	Membership of Organisations (Names)	Expetimental Group				Control Group
		Batch I	Batch II	Batch III	Total	
1	2	3	4	5	6	7
1.	Gram Panchayat					
	Past	2	1	4	7	3
	Present	2	1	5	8	3
2.	Cooperative Society					
	Past	15	12	6	33	9
	Present	17	15	5	37	12
3.	Youth Club					
	Past	2	1	1	4	—
	Present	3	1	1	5	—
4.	Bhajan Mandali					
	Past	8	7	13	28	7
	Present	10	9	16	35	9
5.	Political Party					
	Past	5	3		11	7
	Present	5	3	2	10	6
6.	Charcha Mandal					
	Past	5	1	—	6	—
	Present	6	1	—	7	—
	Total					
	Past	37	25	27	89	26
	Present	43	30	29	102	30

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