

S  
X

# NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING



## ANNUAL REPORT 1969-70



S

T.2.gN6:1  
L0-  
138568



*Primary Science Kit*

NATIONAL COUNCIL OF EDUCATIONAL  
RESEARCH AND TRAINING

ANNUAL REPORT  
1969-70



**National Council of Educational Research and Training**  
Sri Aurobindo Marg, New Delhi 16

*January 1971*

*Magha 1892*

PUBLISHED AT THE PUBLICATION UNIT BY S. A. ABIDIN, SECRETARY  
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING  
SRI AUROBINDO MARG, NEW DELHI 16 AND PRINTED BY NARESH  
NATH AT DELHI PRESS, JHANDEWALAN ESTATE, NEW DELHI 55

## CONTENTS

|  | Page |
|--|------|
| <b>THE COUNCIL</b>   | 3    |
| <b>ANNUAL REPORT (1969-70)</b>   | 11   |
| <i>APPENDIXES</i>  |      |
| 1 Resolution of the Government of India on the Review Committee Report                                 | 21   |
| 2 Membership of the Council and its Committees   | 26   |
| 3 Fourth Five Year Plan Allocation   | 33   |
| 4 Policy Regarding Textbooks   | 44   |
| 5 National Science Talent Search Scheme  | 63   |
| 6 Examination Reform Work of the N.I.E.  | 67   |
| 7 Studies and Surveys (1969-70)  | 69   |
| 8 Grant-in-Aid Scheme (1969-70)  | 79   |
| 9 Curriculum Development (1969-70)   | 81   |
| 10 Training Programmes (1969-70)   | 88   |
| 11 Extension and Field Services (1969-70)  | 92   |
| 12 Collaboration with the States and Union Territories (1969-70)                                       | 100  |
| 13 Grants to Voluntary Organisations (1969-70)   | 104  |
| 14 Boards, Study or Working Groups of the Ministry of Education and Youth Services (1969-70)           | 105  |
| 15 Miscellaneous   | 107  |
| 16 Publications  | 111  |
| 17 Statement of Accounts of National Council of Educational Research and Training for the year 1969-70 | 116  |

## *The Council*

# THE COUNCIL

1. The National Council of Educational Research and Training, popularly known as N.C.E.R.T., was established on 1st September, 1961 as an autonomous organisation under the Societies Registration Act. On its establishment, it took over the Central Institute of Education (1947), the Central Bureau of Textbooks Research, (1954), the Central Bureau of Educational and Vocational Guidance (1954), the All-India Council for Secondary Education (1955), the Directorate of Extension Programmes for Secondary Education (1955, 1959), the National Institute of Basic Education (1959), the National Fundamental Education Centre (1956) and the National Institute of Audio-Visual Education (1959). All these organisations had been set up by the Government of India with a view to provide facilities for the advancement of school education. After taking over all the organisations mentioned, the Council recognised its work so that it could function in an effective manner.

2. The Council is financed entirely by the Government of India. Currently, it functions as the academic wing of the Ministry of Education and Youth Services and assists the Ministry in the formulation and implementation of its policies and major programmes in the field of school education. Broadly, the functions of the Council are:

- (a) To undertake studies, investigations and surveys relating to school education;
- (b) To organise pre-service and in-service training, mainly at an advanced level;
- (c) To organise extension services;
- (d) To disseminate improved educational techniques and practices in schools; and
- (e) To act as a clearing-house for ideas and information on all matters relating to school education.

3. In order to carry out such functions effectively, the Council works in close cooperation with the Education Departments in the States and the universities and generally with all institutions set up in the country for furthering the objectives of school education. In addition, the Council maintains close contact with similar international and national organisations throughout the world. In order to make the results of its investigations available to the public, it undertakes the publication of books, journals and other literature.

4. To fulfil its objectives, it has set up several institutions for imparting instruction in the field of education and for research. It maintains a close liaison with all the State Governments through its network of offices of field Advisors.

The Council has its headquarters in Delhi.

## THE COUNCIL'S INSTITUTIONS

5. At Delhi, the Council has its National Institute of Education. This institution is primarily concerned with research, short-duration training, etc. The National Institute of Education has several departments like the Department of Pre-Primary and Primary Education, the Department of Textbooks, the Department of Teacher Education, the Department of Social Sciences and Humanities, the Department of Educational Psychology and Foundations of Education, the Department of Science Education, the Department of Teaching Aids, the Data Processing and Educational Survey Unit, the Library, Documentation and Information Services Unit and the Publication Unit. Each one of the departments is concerned with projects assigned to it. In addition, a certain amount of fundamental work necessary for the fulfilment of the Council's objectives is also undertaken. But, by and large, most of the investigations undertaken are of an applied character and are expected to be of an immediate utility value.

6. The Central Institute of Education which offers a one-year B.Ed. and postgraduate courses is run by the Council as a centre of excellence and is affiliated to the University of Delhi.

7. The Council runs four Regional Colleges of Education at Ajmer, Bhopal, Bhubaneswar and Mysore. These institutions are campus colleges with extensive laboratory, library and residential facilities. They run a content-cum-pedagogy course of four years' duration leading to the B.Sc., B.Ed. in Science and the B.A., B.Ed. in languages. These courses have been fashioned taking into account the prevailing *views* in certain other countries of the world. It is generally believed in several countries that education should be treated as a professional subject like engineering, medicine, etc., and students must be trained in the subjects and in pedagogy simultaneously. The four-year courses run in the Regional Colleges are meant to implement this view. In addition, the Regional Colleges run some one-year B.Ed. courses. Of special significance among such one-year courses are those pertaining to agriculture and commerce. To the extent possible, the students undertaking training are afforded opportunities for acquiring work-experience so that they could inject the same into school teaching when they become teachers at schools. These Colleges are also developing their postgraduate wings and run both in-service and pre-service programmes for the teachers of the region. The Regional Colleges are being developed to function as models or centres of excellence for the four regions of the country. They work in close collaboration with the universities and institutions in the region and the State Departments of Education.

8. The above description gives a broad picture of the way in which the work of the Council is organised. However, avoidance of rigidity is the Council's motto. Consequently, all the facilities available in all the institutions run by the Council are utilised wherever necessary to implement a decision or to execute expeditiously a given project.



## THE COUNCIL'S ORGANISATION

9. The General Body of the Council has the Union Minister for Education and Youth Services as its President. All the Ministers of Education in the States of the Union and in Union Territories having legislatures, and the Chief Executive Councillor, Delhi, are ex-officio members of the Council. In addition, the Chairman of the University Grants Commission, four Vice-Chancellors of the Universities and 12 nominees of the Government of India among whom are four teachers, and all members of the Executive Committee are members of the Council. The Secretary to the Government of India in the Ministry of Education and Youth Services is an ex-officio member. With such a constitution, it becomes possible to take policy decisions at the highest level and in a mutually agreed manner. It is against this background that the Government of India have requested the N.C.E.R.T. to function as the National Board of School Education.

10. The administration of the Council is vested in an Executive Committee consisting of the President of the Council, the Director and the Joint Director of the Council, the Chairman of the University Grants Commission, representatives of the Ministries of Education and Youth Services and Finance, two teachers, 3 members of the Faculties of the Council and two eminent educationists. This Executive Committee takes decisions on all matters concerning the affairs of the Council. In order to assist the Executive Committee in taking such decisions, a provision has been made for a Programme Advisory Committee which scrutinizes and initiates the programmes of the Council and which has representatives from University Departments and State Institutes of Education in addition to the Faculty of the Council. A Finance Committee advises the Executive Committee on all matters having financial implications. A Management Committee has been set up for each of the four Regional Colleges of Education with the Vice-Chancellor of the University to which the institution is affiliated, as Chairman. This Management Committee tenders advice to the Executive Committee on matters of direct interest to the institution concerned.

11. In addition, the Executive Committee generally appoints standing committees to deal with a variety of specific issues with representatives of the Council and experts in the field from anywhere in India. Thus, problems pertaining to study groups in science, problems pertaining to UNESCO-UNICEF-aided projects for the improvement of science education in the Country, the national science talent search scheme etc. require handling, in the first instance, at the level of acknowledged experts.

12. The Ministry of Education and Youth Services itself sets up several committees or boards. The Council is generally represented on such boards and, wherever necessary, it provides the required expert advice in addition to collaborating with such boards and committees in their day-to-day work. Thus, the Council works in close cooperation with the Central Advisory Board of Education, the National Board of School Textbooks, etc. The link between the Ministry of Education and Youth Services and its committees

etc. on the one hand and the Council on the other is so continuous and so close that it becomes impossible to define in precise terms either this link or the manner in which the Council functions distinctly as a separate entity. Such a close tie-up conduces to the effective functioning of the Council and assists its work to a remarkable degree, particularly in the implementation of whatever it formulates.

### THE COUNCIL'S ACTIVITIES

13. The Council has already made a significant impact on school education and teacher education throughout India. It has published a variety of model school textbooks which have attracted the attention not only of educationists in the Country but outside also. It has assisted several State Boards of Education in designing examination questions mainly for the objective based achievement tests. It has developed, with the assistance of the UNESCO-UNICEF, a considerable amount of science teaching material. This equipment has been distributed to several primary and middle schools throughout the country. In addition, the science books published under the UNESCO-UNICEF project have been translated into several languages in India for use in the school stage. The Council runs an all-India competition to select students good in the field of science. This national science talent search scheme has become extremely popular and provides an opportunity to students coming from even poor families to pursue their studies uninterrupted and free from financial worry up to the highest level in education, viz., the Ph.D. The examinations for this scheme are now being conducted in all the languages of the Union and the entire procedure is kept constantly under review with a view to effect different improvements.

14. The Council has evaluated and is continuously evaluating textbooks prepared by different organisations from a variety of standpoints. There are continued requests to the Council to evaluate books even at the manuscript stage from several State organisations. The Council's scheme of giving grant-in-aid to research projects has enabled many university departments, teacher training colleges, research institutions etc. to embark on research of significant value. Some of the results of these researches have already had an impact on school education. The Council assists financially the publication of researches in the field of education. In addition, it encourages organisations like the parent-teacher association, etc. In order to assist promising young research workers, the Council offers junior and senior fellowships of the monthly value of Rs. 300/- and Rs. 500/- respectively and provides facilities for their growth.

15. The Council has embarked on a special project to clear the backlog of untrained teachers through its constituent units. In this scheme, intensive vacation-cum-correspondence instruction is provided to employed teachers in order to assist them to qualify for the B.Ed.

16. A normal feature of the work of the Council is the organisation of a variety of summer institutes to provide facilities and opportunities of growth to school teachers. Further, in order to make its work meaningful, the Council

has established over 90 extension service centres spread throughout the country in the field of secondary education and over 40 such centres in the field of primary education. In addition, the Council continuously runs seminars and workshops to train resource personnel and teachers and other experts drawn from all parts of India. There is a continuous and unending demand for the experts employed by the Council from most of the States in India and several organisations interested in school education including the State Boards of Education, etc.

17. In order to infuse in the minds of children the concept of national integration and the basic unity of India, it publishes literature of value and organises a variety of camps of students and teachers. Some of the textual material, community singing material, etc., developed by the Council has attracted special attention. A noteworthy contribution to our thought and culture as well as that of the world as a whole is the publication of small monographs by the Council of the founders of our living faiths.

*Annual Report*  
1969—70

# ANNUAL REPORT

1969-70

## 1. Introduction

During the year under report, the Council and its Activities were reorganised. Research, survey, pre-service and in-service training of teachers, etc., continued to engage the attention of the Council to the same extent as in previous years. While an account is being furnished of all these activities, an attempt is being made, wherever possible, to furnish some evaluation of the work of the Council.

## 2. Reorganisation of the Council

On 29th January, 1968, the Government of India appointed a Review Committee under clause 6 of the Memorandum of Association of the Council with Dr. B.D. Nag Chaudhuri, Member, Planning Commission, as its Chairman. This Committee had to review the progress of the activities of the Council and lay down broad guidelines for its future development. The report of this Committee was submitted to the Union Minister for Education on 20th August, 1968. The Report had been discussed at a meeting of the Governing Body of the Council and the Government of India were aware of the views of the Governing Body. The Resolution of the Government of India on the report of the Review Committee is reproduced in extenso in Appendix 1. Under Article 6 of the Memorandum of Association of the Council, the Council had to comply with the directions as furnished in the Government Resolution. This work of reorganising the Council and its activities was taken up on a priority basis and the broad features of the implementation of this Resolution are furnished below.

*2.1 Amendments of the Rules:* The Governing Body at its meeting held on 26th November, 1969 considered the required draft amendments to the Rules of the Council and recommended the same to the General Body of the Council. The General Body of the Council at its Annual General Meeting held on 18th December, 1969 unanimously accepted these amendments and they were submitted to the Government of India for approval. In their letter No. F. 1-19/69-NCERT of 23rd January, 1970, the Government of India conveyed their approval of the same. They were then lodged with the Registrar of Societies by the Secretary of the Council under cover of letter No. F.23-2/69-E.I. on 30th January, 1970 when these rules became operative. Immediately thereafter, the Council took the necessary steps to get the required nominations to reconstitute the different bodies of the Council.

The names of members of the old authorities and the newly constituted authorities of the Council for the year 1969-70 are furnished in Appendix 2.

2.2 *Memorandum of Association:* As required by the Government Resolution, the Memorandum of Association of the Council also needed amendments. The necessary steps are being taken for amending the Memorandum of Association of the Council in accordance with the rules of the Council.

2.3 *National Institute of Education:* At its headquarters in Delhi, the Council runs the National Institute of Education. The Departments of the National Institute of Education were reorganised and reconstituted in accordance with the requirements of the Government Resolution. Consequently, the National Institute of Education has now the following Departments/Units:

- (a) Department of Pre-Primary and Primary Education
- (b) Department of Science Education
- (c) Department of Social Sciences and Humanities
- (d) Department of Textbooks
- (e) Department of Teacher Education
- (f) Department of Teaching Aids
- (g) Department of Educational Psychology and Foundations of Education
- (h) Data Processing and Educational Survey Unit
- (i) Library, Documentation and Information Services

As a consequence of this reorganisation, some of the old Departments like the Department of Field Services and the Department of Educational Administration were abolished and the Department of Foundations of Education was merged with the Department of Psychological Foundations, and the latter was renamed as the Department of Educational Psychology and Foundations of Education. One department that was recommended for being abolished by the Review Committee, viz., the Department of Teacher Education, has been continued. A new Department of Textbooks has been established as a result of the recommendation of the National Board of School Textbooks. The question of having a Department of Measurement and Evaluation is still under consideration.

The staff of the Departments abolished have been utilized either in other Departments or in the new programmes of work as suggested by the Review Committee.

There were several members of the staff who were recruited to the Council but who had kept their lien against their posts in the different State Government departments. The cases of such deputationists have been examined as directed and action taken. Steps to send back some deputationists to their parent organisations were taken. In the case of others who are required for the Council's work, the question of their possible absorption in the Council is under correspondence with the States concerned.

As recommended by the Review Committee, steps are being taken to get the Department of Adult Education transferred to the Ministry of Education and Youth Services.

2.4 *Regional Colleges of Education:* As recommended by the Review Committee, the four-year courses in technology and commerce have been

abolished. The question of continuing the four-year science course and the four-year language course in the Regional Colleges of Education is under examination. Similarly, the question of limiting the award of stipends to a certain proportion of the students admitted to the Regional Colleges of Education is also under examination.

2.5 *Central Institute of Education, New Delhi:* Steps have already been taken to transfer the Central Institute of Education to the University of Delhi and the decision of the University is expected soon.

2.6 *Director:* In accordance with the recommendations of the Review Committee, the Government of India created the post of a whole-time Director with the status of that of a Vice-Chancellor of a Central University for the Council and adopted the procedure for his selection as suggested by the Review Committee. A whole-time Director was appointed and he took charge on 14th November, 1969.

### 3. The Council

3.1 *Officers of the Council:* Prof. V.K.R.V. Rao, Union Minister for Education and Youth Services was the President of the Council. Prof. S.V.C. Aiyar took over as full-time Director of the Council on 14th November, 1969. Dr. Shib K. Mitra who was officiating as Joint Director of the Council proceeded on long leave to take up another assignment. Prof. J.K. Shukla officiated as Joint Director during the latter half of the year. Shri P.N. Nataraj relinquished charge of the office of Secretary on 23rd September, 1969 and Shri R.N. Vij performed the duties of the Secretary till 1st January, 1970 when Shri S.A. Abidini, I.A.S. assumed charge as Secretary.

3.2 *Authorities of the Council:* The Annual General Meeting of the General Body of the Council was held at New Delhi on 18th December, 1969 when it considered the Annual Report for the year 1968-69 and the Statement of Accounts for the year 1966-67 and 1967-68 together with the Audit Reports for these years. In addition, it adopted unanimously the amendments to the Rules of the Council.

The Governing Body of the Council met on June 24, July 7 and November 26, 1969. Thereafter, no meetings could be held as the new Executive Committee had to be constituted. During these meetings, the Governing Body adopted the Annual Report of the Council, the budget of the Council, the draft Fourth Five-Year Plan of the Council and considered the implementation of the Government Resolution on the Report of the Review Committee. The Governing Body also took steps to appoint a full-time Director. It appointed a Committee to review the work of the Council on textbooks and another com-

mittee to consider the continuation of the four-year science course in the Regional Colleges of Education.

The Finance Committee met on 22nd August and 16th December, 1969 and made recommendations to the Governing Body on a number of problems like the National Science Talent Search Scheme, the engagement of apprentices for undergoing apprenticeship training, the rates of remuneration to be paid to reviewers of teaching units, the creation of additional posts for the Central Institute of Education and the Central Science Workshop, the renting of private houses for providing residential accommodation to the staff, etc.

The Programme Advisory Committee could not meet during the year as it could not be constituted before the end of the financial year.

**3.3 Campus Development:** Considerable attention was paid to the development of the Campus at New Delhi and in the Regional Colleges of Education at Ajmer, Bhopal, Bhubaneswar and Mysore. Having regard to the need for providing accommodation for low paid employees, a decision was taken to construct two blocks each of type II and type III quarters. The CPWD was requested to take immediate action. Among other items of construction recommended mention may be made of the car and cycle shed, the compound wall of the Campus and the Director's quarters.

With the main building nearing completion, a decision was taken to move several Departments housed in rented buildings in different parts of Delhi to the main Campus on the Mehrauli Road. This was implemented with effect from January, 1970 with the result that all the Departments of the National Institute of Education (except the Department of Teaching Aids) and the Council Secretariat are housed in the main Campus. Steps have been taken to get water supply from the Delhi Municipal Corporation to the Campus.

Steps were taken to get the minimum required buildings for instructional purposes in the Regional Colleges of Education and the staff quarters constructed through the State P.W.D.s. Most of the work of this type in all the four Regional Colleges is now practically complete. Some of the remaining work is expected to be completed in the course of the next year. The problem of constructing residential accommodation for low-paid staff on the Campuses of the Regional Colleges of Education is engaging attention of the Council and steps for getting them constructed would be taken as soon as the necessary funds become available.

**3.4 NIE Library:** After the completion of the main building, the two godown type of buildings were made available to the Library. With this accommodation, it became possible for the Library to have some minimum space for its activity. But this arrangement is only temporary. A Committee has been appointed to examine the long-range problems of the Library including the Library building. On receipt of the report of the Committee, proper proposals would be formulated, examined by the Programme Advisory Committee and then submitted to the Executive Committee for its consideration.



3.5 *Regional Colleges:* The Regional Colleges continued to run four-year courses in Science, English, Commerce and Technology for students who had already been admitted. No admissions were made during the year for the Technology Course. The Correspondence-cum-Vacation Training one-year B.Ed. Course was continued in all the four Regional Colleges to clear the backlog of untrained teachers. In addition, one-year B.Ed. courses in a limited number of subjects were run in these Regional Colleges. Of very special interest in this field is the one-year B.Ed. Course in Agriculture and Commerce. A limited amount of facility was afforded for the M.Ed. Course at Bhubaneswar and Bhopal. The question of developing the postgraduate activity of the Regional College was taken up for more detailed examination. Extensive in-service training programmes were undertaken by all the four Colleges which also actively participated in the running of Summer Institutes for secondary school teachers. The need for undertaking some kind of work for primary school teachers was stressed and the colleges were asked to consider methods of affording such facilities to primary school teachers without involving significant financial commitments. The problem is yet in the preliminary stage of exploration.

The first batch of students admitted for the four-year English Course is expected to graduate during the year.

3.6 *The Fourth Plan:* The draft Fourth Plan for the Council was drawn up on the basis of directives given by the Government of India. Essentially, it provides for the continuation in appropriately modified forms of some of the on-going activities and the taking up of some new projects of significance for the implementation of the policies of the Government of India. The details of the Fourth Plan are furnished in Appendix 3. After the Plan has been properly formalised, a more detailed report will be prepared and furnished during 1970-71.

3.7 *Textbooks:* The Council has been publishing textbooks and a variety of other additional reading material. They were not adopted or adapted to the desired extent by the different State Governments. Therefore, the Governing Body appointed a Committee consisting of Dr. B.N. Ganguli, Shri T.R. Jayaraman and Prof. S.V.C. Aiya to examine this problem. The Committee submitted its report to the President. Thereafter, the Government of India considered the report and issued instructions regarding the policy regarding textbooks that the N.C.E.R.T. should adopt. They also circulated a letter to all the State Governments clarifying the new procedure. The report of the Committee on Textbooks, the Government letter and the Government circular to the States are reproduced in Appendix 4.

3.8 *Science Talent Search Scheme:* The Council has been running the National Science Talent Search Scheme for several years. It has benefited a number of students and the reports from those who have come in contact with the National Science Talent scholars is encouraging. However, there was not

an even distribution of the awardees over the whole country. Further, rural children did not benefit from this scheme. Therefore, a detailed analysis of the scheme as it is operated was undertaken. A report of this analysis is furnished in Appendix 5. The Council is very much concerned with improving the methods and procedures adopted and has already taken several steps in this direction. One noteworthy feature of the scheme now worth mentioning is the fact that the examination for this scheme is now conducted in all the regional languages.

**3.9 Examination Reform:** For many years the Council has been engaged in examining a limited number of problems pertaining to examinations. Among these may be mentioned the question of setting objective type of questions so that the reliability of the examination could be improved. The work of the Council in this sphere has had some impact on the States. Therefore, a detailed report on the work done in this sphere and its impact on the States is furnished separately in Appendix 6.

**3.10 Publications:** The Council has been known for the quality of the publications it puts out. These publications provide a very good medium for the dissemination of information on school education in addition to providing school textbooks, etc. The list of the more important publications released till April 1970 is furnished in Appendix 16.

**3.11 Finance:** The Council has a small income of the order of Rs. 30 lakhs arising from the sale of publications, etc. But for this, the entire expenditure comes from Government grants. The expenditure on the different activities of the Council now stands at over 3 crores of rupees. A brief summary of the expenditure of the Council is given below.

|              | 1969-70                            |                                     | Actuals/Remarks<br>(Rs. in lakhs)     |
|--------------|------------------------------------|-------------------------------------|---------------------------------------|
|              | Budget Estimates<br>(Rs. in lakhs) | Revised Estimates<br>(Rs. in lakhs) |                                       |
| Non-Plan     | 208.78                             | 208.78                              | 188/- including<br>loans and advances |
| Plan         | 139.00                             | 142.60                              | 144.04                                |
| <b>Total</b> | <b>347.78</b>                      | <b>351.38</b>                       | <b>332.04</b>                         |

The more detailed statement of the receipts and payments position of the Council during the year 1969-70 is furnished in Appendix 17.

#### 4. Research and Training

4.1 During the year under report, the Council continued its investigations on a variety of problems of interest to education with special reference to school

education. The present position of the work is furnished in Appendix 7. The same Appendix gives a report of the survey of school textbooks in India, a sample survey of secondary school teachers, a survey of the facilities for science teaching in elementary and secondary teacher training institutions and audio-visual equipment in training colleges.

The material prepared has, in all cases, been circulated to all the persons concerned to the extent possible.

4.2 *Grant-in-Aid Scheme*: The Council has desired that university departments, teacher training colleges and other organisations should be brought together for doing either collaborative work or undertaking research projects so that the cumulative impact of all such work could be felt all over the country. As in the past, the Council continued its grant-in-aid scheme for this purpose and a report of the same is furnished in Appendix 8.

4.3 *Curriculum Development*: Curriculum development is one of the main functions of the Council and considerable attention has been paid to this activity in all the departments of the National Institute of Education. To the extent possible, this work has been encouraged in the Regional Colleges of Education also. Curriculum development includes the development of textbooks, teaching aids, laboratory equipment, teachers' handbooks, supplementary reading material, etc. The work done by the Council during the year under report is described in Appendix 9.

4.4 *Training Programmes*: One of the main activities of the Council is pre-service and in-service training of teachers and teacher educators. Pre-service training takes the major proportion of the time of the Regional Colleges of Education and the Central Institute of Education. The activities of the Council in this field during the year under report are described in Appendix 10.

4.5 *Extension and Field Services*: Considerable attention has been paid by the Council for work in the area of extension and field services. As is known, the Council has about 140 Extension Service Centres located in selected secondary and primary teacher training institutions throughout the country. In addition, the Council had 3 Field Units at Hyderabad, Bikaner and Shillong. The work done by the Council and its Units in the area of extension and field services is described in Appendix 11.

4.6 *Collaboration with States*: From time to time, enquiries are made about the kind of collaboration that the Council has with the States and Union Territories. Under the circumstances, it was felt appropriate to describe this activity during the year under report in some detail. This has been done in Appendix 12. It will be seen that the Council and its expertise are being utilised by several States for several subjects.

4.7 *Voluntary Organisations*: There are a number of voluntary organisations which undertake work which is of value either directly or indirectly to school education. All such organisations are encouraged by the Council with financial and other assistance. A detailed report of the same is furnished in

Appendix 13. The Council realises that there is need to plough more funds into this area so that the activities of voluntary organisations, particularly the teacher associations and the parent-teacher associations, could be stepped up.

Parent-teacher associations have played a very significant role in other countries in the field of improving school education. Some of them have contributed to the improvement of school syllabi, particularly by focussing attention on relevance of what is taught in schools for future employment or employability of the pupils, etc.

4.8 *Ministry of Education and Youth Services:* In accordance with the requirements of the Government Resolution regarding the role of the Council, the staff of the Council are expected to actively participate in the work of the Ministry and the Council as a whole is required to function as the academic wing of the Ministry. In fulfilment of these requirements, the staff of the Council actively undertook work in several of the boards, study groups, etc., set up by the Ministry. A brief report of the same is furnished in Appendix 14. It may be mentioned, however, that this is not complete. There has been even day-to-day contacts between the staff of the Council and the staff of the Ministry and advice has been tendered or information supplied to the Ministry on several items.

4.9 *Miscellaneous:* The Council continued to receive assistance from UNESCO, UNICEF and other organisations. It deputed several of its staff members to attend conferences or to undergo training, etc. Details are furnished in Appendix 15.

#### ACKNOWLEDGEMENT

The Council is most grateful to the Minister for Education and Youth Services and all the staff of the Ministry of Education and Youth Services for several facilities extended to it from time to time in various ways. The Council is also grateful to several individuals who spared their valuable time to serve on a number of its committees, including selection committees. Several organisations and institutions actively cooperated with the Council in its work. The Education Departments of State Governments most willingly extended all the help and assistance the Council required. To all these, the Council expresses its gratitude.

The Council is also grateful to UNESCO, the UNICEF, the British Council, the USAID, the US National Science Foundation, the Government of the U.S.S.R. and the Government of the German Democratic Republic for the assistance they have rendered in one form or the other.

## *Appendixes*

## APPENDIX I

Letter No. F. 1-3/68-NCERT dated the 4th August, 1969/13 Sravana, 1891 (Saka) from Shri S. Chakravarti, Secretary, Ministry of Education and Youth Services, Government of India

### *Resolution*

#### *Report of the Review Committee on the Future Development of National Council of Educational Research and Training: Orders on*

As school education is essentially a State subject, the role of the Centre in this field broadly relates to (a) serving as a clearing-house of ideas and information; (b) conducting research, experiments and pilot projects; and (c) generally providing innovative impulses, especially in programmes of qualitative improvement. It was in the light of this role that some Central institutions functioning in the field of school education were first established. These included: the Central Institute of Education (1947); the Central Bureau of Textbooks Research and the Central Bureau of Educational and Vocational Guidance (1954); the All India Council for Secondary Education (1955) which later on became the Directorate of Extension Programmes for Secondary Education (1959); the National Institute of Basic Education and the National Fundamental Education Centre (1956); and the National Institute of Audio-Visual Education (1959). As these small and somewhat isolated institutions did not adequately serve the broad purposes contemplated, in a coordinated way, they were merged together to form the National Council of Educational Research and Training (1961) and four Regional Colleges of Education established thereunder.

2. To review and evaluate the activities and programmes of the National Council of Educational Research and Training and to make recommendations regarding their future, the Government of India appointed a Review Committee under the Chairmanship of Dr. B. D. Nag Chaudhuri, Member (Science), Planning Commission (1968). The report of the Committee has since been received. Its recommendations have been examined by the Government of India in the light of the views of the Governing Body of the Council expressed thereon. The decisions of the Government on the major recommendations of the Committee are indicated below.

3. **Role of the Council:** The principal function of the Council is to assist the Ministry of Education and Youth Services in the formation and implementation of its policies and major programmes in the field of school education and to this end to develop the necessary research, experiments, pilot projects, advanced level training and extension services. To discharge these functions satisfactorily, it should maintain close liaison with the Ministry, the State Education Departments and the Universities. The Council should act as the principal academic adviser of the Ministry, keep it informed of the emerging trends and developments in the field of school education in the country, orient its programmes in the light of policy requirements enunciated by the Ministry and implement the programmes of the Ministry in this field as outlined from time to time. The Director and the senior officers of the Council should maintain effective contact with the Secretary and senior officers of the Ministry of Education and Youth Services for this purpose and function in close and continuous collaboration with them. The Council should also maintain close contact with the Education Secretaries and the Directors of Education/Public Instruction in the States and the Union Territories and develop effective working relationships with the State Institutes of Education (or State Councils of

Educational Research and Training) through collaborative programmes of research or improvement of school education and exchange of staff. Similar relationships should also be developed with University departments interested in improvement of school education.

4. The Council should devote special attention to pre-primary and primary education. Its principal role in this field should be to function as an evaluator of programmes, as an innovator of new ideas and practices and as a promoter for further work that could be suggested to State Governments and other educational authorities.

5. **National Institute of Education:** Government generally agree with the Review Committee that the Departments of the National Institute of Education should be reorganised for more effective and coordinated functioning. The principal Departments of the Institute should be the following:

- (1) Department of Social Sciences and Humanities;
- (2) Department of Science Education;
- (3) Department of Educational Psychology and Foundations of Education;
- (4) Department of Teaching Aids;
- (5) Department of Textbooks;
- (6) Department of Pre-Primary and Primary Education; and
- (7) Department of Teacher Education.

6. In addition, there should be a separate Unit for data processing and educational survey. Documentation and information services should be developed as a part of the activities of the Central Library of the Institute. The Department of Philosophical and Sociological Foundations should be merged, as indicated above, in the Department of Educational Psychology. The Departments of Administration and Field Services should be abolished. Extension Services, however, should receive adequate attention and be developed as an integral part of the programme of each individual department.

7. The Director of the Council should decide, in the light of the recommendations of the Review Committee and the instructions given by the Government from time to time, the details of the manner in which each of these Departments will function and their programmes coordinated with one another.

8. The Government broadly agree with the suggestions made by the Review Committee regarding the future programmes of the National Institute of Education. These should be considered in detail by the Director.

9. **Regional Colleges of Education:** Government do not think it necessary to make the Regional Colleges the campuses of the National Institute of Education. But a close liaison between them and the National Institute of Education should be established. The primary objective of each Regional College should be to become a centre of excellence in teacher education, to provide extension services to the training institutions in its area and be closely involved in programmes of improving school education, within the region, in general, and of teacher training in particular.

10. Fresh admissions to the four-year degree course in Technology have already been discontinued. Such admissions to courses in English and Commerce should be discontinued with effect from 1970-71. Orders regarding the four-year course in Science will be issued separately. The facilities and resources thus released should be utilised for development and expansion of the one-year courses, for undertaking pioneering and experimental work in the field of training of pre-primary and primary teachers, for the preparation of teacher educators and for development of postgraduate and research programmes in education. Courses in which enrolments have been small may be concentrated in one or two centres according to needs. The Director should examine the case of each Regional College separately on the basis of these orders and modify its programmes suitably in the Fourth Five Year Plan.

11. **Relations with State Education Departments:** It is necessary to foster closeness between the Council and the State Education Departments. In the annual Conference of Education Secretaries and Directors of Public Instruction/Education of States/Union Territories, therefore, adequate time should be set apart for considering the

programmes of the Council and their utilisation by the State Governments.

12. Government agree with the Review Committee that there should be effective inter-change of the staff between National Institute of Education and the Regional Colleges of Education (including other State level organisations, for qualitative improvement of school education) on the one hand and University departments interested in school improvement on the other. For this purpose, supernumerary posts may be created, if necessary.

13. **Status of the Council:** In view of the necessarily close and intimate relationship that should exist between the Council and the Ministry, it would not be appropriate to convert it either into an Institution of National Importance or a Deemed University under Section 3 of the University Grants Commission Act, 1956.

14. **Administrative Arrangements:** Government agree with the Review Committee that the posts of the Director and Joint Director should be whole-time. The scales of pay of these posts and other conditions of services have recently been decided and communicated to the Council. Government do not think that the post of Dean, recommended by the Review Committee, is necessary.

15. **Amendments to the Constitution:** Government agree with the Review Committee that several amendments to the Memorandum of Association and Rules of the Council are necessary to enable it to play its proper role in the improvement of school education. After examining the suggestions made by the Review Committee in this regard, Government are pleased to direct that the Council should take immediate steps to amend its Memorandum of Association and the Rules on the lines indicated below:

1. Article 3 of the Memorandum of Association should be modified as follows:

3(1) The objects of the Council shall be to assist the Ministry of Education and Youth Services in the formation and implementation of its policies and major programmes in the field of school education.

(2) For the realisation of these objectives, the Council may undertake any or all of the following programmes and activities:

- (a) To undertake or organise studies, investigations and surveys relating to school education;
- (b) To organise pre-service and in-service training, mainly at an advanced level;
- (c) To organise extension services for such institutions as are engaged in educational research, training of teachers or provision of extension services to schools;
- (d) To disseminate improved educational techniques and practices in schools;
- (e) To cooperate with and assist the State Education Departments, Universities and other educational Institutions for the furtherance of its objects;
- (f) To act as a clearing-house for ideas and information on all matters relating to school education;
- (g) To establish and conduct, in any part of the country, such institution as may be necessary to realise its objectives;
- (h) To advise the State Governments and other educational organisations and institutions on matters relating to school education;
- (i) To undertake the publication of such books, periodicals and other literature as may be necessary for the furtherance of its objects;
- (j) To acquire by gift, purchase, lease or otherwise any property, movable or immovable, which may be necessary or convenient for the purposes of the Council and to construct, alter and maintain any building or buildings for the purposes of the Council;
- (k) To draw, make, accept, endorse, discount and negotiate Government of India and other promissory notes, bills of exchange, cheques or other negotiable instruments;
- (l) To invest the funds of the Council in such securities or in such manner as may, from time to time, be determined by the Executive Committee and, from time to time, to sell or transfer such investments;
- (m) To sell, transfer, lease or otherwise dispose of all or any property of the Council;



and

- (n) To do all such things as the Council may consider necessary, incidental or conducive to its primary objects of promoting educational research, advanced professional training of educational personnel, and the provision of extension services to educational institutions.

## II. Council

The Council shall consist of the following members:

- (i) The Minister for Education & Youth Services—*ex-officio* President
- (ii) Chairman of the University Grants Commission *ex-officio*
- (iii) Secretary to the Ministry of Education & Youth Services *ex-officio*
- (iv) Four Vice-Chancellors of Universities, one from each zone, nominated by the Government of India;
- (v) One representative of each State Government and Union Territory with a legislature, who shall be the Education Minister of the State/Union Territory (or his representative) and in the case of Delhi, the Chief Executive Councillor, Delhi (or his representative);
- (vi) All members of the Executive Committee not included in the above; and
- (vii) Such other persons, not exceeding twelve, as the Government of India may, from time to time, nominate. Not less than four of these shall be school teachers.

## III. Executive Committee

The affairs of the Council shall be administered, subject to the rules and regulations and orders of the Council, by an Executive Committee which shall consist of the following:

- (i) President of the Council who shall be the *ex-officio* President of the Executive Committee;
- (ii) The Director of the Council who shall be the *ex-officio* Vice-President of the Executive Committee;
- (iii) Chairman of the University Grants Commission, *ex-officio* Member;
- (iv) Four educationists with known interest in school education (two of whom will be school teachers) nominated by the President from amongst the members of the Council;
- (v) Joint Director of the Council;
- (vi) Two members of the Faculty of the Council at the level of Professors and Heads of Departments nominated by the President of the Council;
- (vii) One representative of the Ministry of Education and Youth Services; and
- (viii) One representative of the Ministry of Finance, who shall also be the Financial Adviser of the Council.

## IV. Programme Advisory Committee

The Board of Educational Studies of the Council should be abolished and replaced by Programme Advisory Committee.

- (1) The Programme Advisory Committee shall make recommendations to the Executive Committee regarding the lines on which research, training, extension and other programmes of the Council and the Regional Colleges of Education should be conducted and the channels into which they should be guided in order best to serve the object of promoting the improvement of school education in the country keeping in view the role of the Council as outlined in paragraph 3 above. It will be the responsibility of the Programme Advisory Committee to consider all plans, programmes, research proposals, etc., and to examine the academic aspects of the work of the National Institute of Education and the Regional Colleges of Education and to ensure a coordinated approach to the development of their programmes.
- (2) The Programme Advisory Committee will consist of the following members:
  - (i) The Director of the Council—Chairman;
  - (ii) Joint Director of the Council—Vice-Chairman;
  - (iii) Five University Professors or Heads of Departments representing education and other related disciplines, nominated by the President of the Council;

- (iv) Five Directors of State Institutes of Education to be nominated by the President of the Council in rotation from all States and Union Territories;
- (v) All Heads of Departments of the National Institute of Education and all Principals of the Regional Colleges of Education and one Professor/Reader from each Department of the National Institute of Education to be nominated by the Director of the Council.
- (3) The Programme Advisory Committee may appoint such Committees as it may consider necessary to deal with special problems or programmes entrusted to it or with special aspects of its work.

*V. Appointment*

The Director, the Joint Director and the Secretary of the Council shall be appointed by Government which shall prescribe their remuneration and other terms of service.

*VI. Relationship with the Ministry*

Government agree with the Review Committee that it is necessary to redefine the relationship between the Council and the Ministry of Education and Youth Services, and to build up new relationships of close collaboration between them. As already stated, these new relationships require that there should be close linkage between the policies of the Government and the programmes of the Council and close and continuous collaboration between the Officers of the Ministry and the Council. In addition, there should be provision in the constitution of the Council for the issue of directions by Government on important matters of policy and programmes.

*VII. Consequential Amendments*

Steps should also be taken to carry out such consequential amendments as may be found to be necessary in the other rules of the Council in view of the amendments indicated above.

16. Such recommendations of the Review Committee as have not been mentioned here should be examined and decided upon by the Executive Committee.

17. Government wish to place on record their deep appreciation of the work done by the Chairman and Members of the Review Committee and for their valuable report.

## APPENDIX 2

### *Membership of the Council and its Committees*

1969-70

#### *A. The Council*

- |   |   |
|---|---|
| 1. Dr. V.K.R.V. Rao<br>Union Minister of Education and<br>Youth Services, New Delhi ( <i>President</i> )                          | 11. Education Minister<br>Madhya Pradesh<br>Bhopal                |
| 2. Educational Adviser to the Govt. of<br>India, Ministry of Education and Youth<br>Services, New Delhi ( <i>Vice-President</i> ) | 12. Education Minister<br>Mysore<br>Bangalore                     |
| 3. Education Minister<br>Andhra Pradesh<br>Hyderabad  | 13. Education Minister<br>Orissa<br>Bhubaneswar                   |
| 4. Education Minister<br>Assam<br>Shillong  | 14. Education Minister<br>Punjab<br>Chandigarh                    |
| 5. Adviser (Education)<br>to the Lt. Governor, Bihar<br>Patna (so long the state is<br>under President rule)                      | 15. Education Minister<br>Rajasthan<br>Jaipur                     |
| 6. Education Minister<br>Gujarat<br>Ahmedabad   | 16. Education Minister<br>Uttar Pradesh<br>Lucknow                |
| 7. Education Minister<br>Haryana<br>Chandigarh  | 17. Education Minister<br>Government of Tamil Nadu<br>Madras      |
| 8. Education Minister<br>Jammu & Kashmir<br>Srinagar  | 18. Education Minister<br>West Bengal<br>Calcutta                 |
| 9. Education Minister<br>Kerala<br>Trivandrum   | 19. Education Minister<br>Nagaland<br>Kohima                      |
| 10. Education Minister<br>Maharashtra<br>Bombay   | 20. Chief Commissioner<br>Andaman & Nicobar Islands<br>Port Blair |

21. Administrator  
Dadar and Nagar Haveli  
Silvassa
22. Lt. Governor  
Delhi Administration  
Delhi
23. Lt. Governor  
Goa, Daman and Diu  
Panjim
24. Lt. Governor  
Govt. of Himachal Pradesh  
Simla
25. Administrator  
Union Territory of Laccadive  
Kavaratti
26. Chief Commissioner  
Govt. of Manipur  
Imphal
27. Governor of Assam for  
N.E.F. Agency  
Shillong
28. Lt. Governor  
Government of Pondicherry  
Pondicherry-1
29. Chief Commissioner  
Government of Tripura  
Agartala
30. Chief Commissioner  
Chandigarh Administration  
Chandigarh
31. Dr. D.S. Kothari  
Chairman  
University Grants Commission  
New Delhi
32. Dr. K.N. Raj  
Vice-Chancellor  
University of Delhi  
Delhi
33. Dr. (Miss) Kaumudi  
Financial Adviser (Council)  
Ministry of Education  
New Delhi
34. Prof. S.V.C. Aiya  
Director  
NCERT  
New Delhi
35. Joint Director  
NCERT
36. Prof. M.V. Mathur  
Director  
Asian Institute of Educational  
Planning & Administration,  
New Delhi
37. Prof. Shanti Narayan  
Principal  
Hans Raj College  
Delhi
38. Prof. R.K. Dasgupta  
Head of the Department of  
Modern Indian Languages  
University of Delhi  
Delhi
39. Prof. K.G. Saiyidain  
D-II/9, Pandara Road  
New Delhi
40. Dr. P.K. Kelkar  
Director  
Indian Institute of Technology  
Kanpur
41. Prof. P.N. Dhar  
Director, Institute of Economic  
Growth,  
University of Delhi  
Delhi
42. Dr. S. Misra  
Vice-Chancellor  
Utkal University  
Bhubaneswar
43. Dr. K. Kuruvila Jacob  
Principal, The Cathedral & John  
Connon School, 6 Outram Road,  
Bombay-1
44. Dr. M.S. Gore  
Director  
Tata Institute of Social Sciences  
Bombay

- |  |  |
|--|--|
| <p>45. Prof. A.R. Kamat<br/>Professor of Statistics<br/>Gokhale Institute of<br/>Politics &amp; Economics<br/>Poona-4</p> <p>46. Shri N.D. Sundaravadivelu<br/>Vice-Chancellor<br/>Madras University<br/>Madras</p> <p>47. Dr. V.C. Vaman Rao<br/>ex-Vice-Chancellor<br/>Sri Venkateswara<br/>University,<br/>3-5-878 Opp. Old MLA Qrs.<br/>Hyderabad-29</p> | <p>48. Shri L.R. Sethi<br/>Chairman, Central Board<br/>of Secondary Education<br/>New Delhi</p> <p>49. Prof. Hiren Mukerji<br/>Member of Parliament<br/>21, Gurdwara Rakab Ganj<br/>Road, New Delhi</p> <p>50. Dr. A.C. Joshi<br/>Sector 9-C<br/>Chandigarh</p> <p>51. Prof. A. Mujeeb<br/>Jamia Millia Islamia<br/>New Delhi</p> <p>52. Secretary<br/>NCERT (<i>Member-Secretary</i>)</p> |
|--|--|

### *B. Governing Body*

- |   |   |
|---|---|
| <p>1. Prof. V.K.R.V. Rao<br/>Union Minister for Education<br/>and Youth Services (<i>President</i>)</p> <p>2. Educational Adviser<br/>to the Govt. of India<br/>Ministry of Education and<br/>Youth Services (<i>Vice-President</i>)</p> <p>3. Dr. D.S. Kothari<br/>Chairman<br/>University Grants Commission<br/>New Delhi</p> <p>4. Dr. K.N. Raj<br/>Vice-Chancellor<br/>University of Delhi<br/>Delhi</p> <p>5. Dr. (Miss) Kaumudi<br/>Financial Adviser (Council)<br/>Ministry of Education and<br/>Youth Services</p> <p>6. Prof. S.V.C. Aiya<br/>Director<br/>NCERT</p> | <p>7. Dr. Shib K. Mitra<br/>Joint Director<br/>NCERT</p> <p>8. Prof. K.G. Saiyidain<br/>D-II/9, Pandara Road<br/>New Delhi</p> <p>9. Prof. M.V. Mathur<br/>Director<br/>Asian Institute of Educational<br/>Planning and Administration<br/>New Delhi</p> <p>10. Prof. Shanti Narayan<br/>Principal<br/>Hans Raj College<br/>Delhi</p> <p>11. Prof. R.K. Das Gupta<br/>Head of the Department of<br/>Modern Indian Languages<br/>University of Delhi<br/>Delhi</p> <p>12. <i>Vacant</i></p> <p>13. Secretary<br/>NCERT (<i>Member-Secretary</i>)</p> |
|---|---|

### *C. Executive Committee*

1. Prof. V.K.R.V. Rao  
Union Minister of Education and  
Youth Services, New Delhi (*President*)
2. Prof. S.V.C. Aiya  
Director  
NCERT  
New Delhi (*Vice-President*)
3. Dr. D.S. Kothari  
Chairman  
University Grants Commission  
New Delhi
4. Prof. M.V. Mathur  
Director  
Asian Institute of Educational  
Planning and Administration  
New Delhi
5. Prof. Shanti Narayan  
Principal  
Hans Raj College  
Delhi
6. Shri S. Udupachar  
Headmaster  
Nrupatunga Multipurpose Higher  
Secondary School  
Hyderabad
7. Shri D.S. Bajpai  
Principal  
Kendriya Vidyalaya  
I.I.T.  
Kanpur
8. Joint Director  
NCERT  
New Delhi
9. Dr. R.H. Dave  
Head  
Department of Textbooks  
New Delhi
10. Dr. M.C. Pant  
Head  
Department of Science Education  
New Delhi
11. Shri P.D. Sharma  
Principal  
Regional College of Education  
Bhubaneswar
12. Shri T.R. Jayaraman  
Joint Secretary  
Ministry of Education and Youth  
Services, New Delhi
13. Shri O.P. Mohla  
Financial Adviser  
NCERT  
Ministry of Education and Youth  
Services, New Delhi
14. Secretary  
NCERT  
New Delhi (*Secretary*)

### *D. Finance Committee*

1. Shri T.R. Jayaraman  
Joint Secretary  
Ministry of Education and Youth  
Services, New Delhi (*Chairman*)
2. Prof. S.V.C. Aiya  
Director  
NCERT  
New Delhi

3. Prof. M.V. Mathur  
Director  
Asian Institute of Educational  
Planning and Administration  
Indraprastha Estate  
New Delhi-1
4. Prof. Shanti Narayan  
Principal  
Hans Raj College  
University of Delhi  
Delhi
5. Shri O.P. Mohla  
Financial Adviser (NCERT)  
Ministry of Education and  
Youth Services  
Shastri Bhavan  
New Delhi

### *E. Programme Advisory Committee*

1. Director  
NCERT  
New Delhi (*Chairman*)
2. Joint Director  
NCERT  
New Delhi (*Vice-Chairman*)
3. Prof. H.B. Majumdar  
Principal  
Visva Bharati University  
P.O. Shantiniketan
4. Dr. D.M. Desai  
Dean  
Faculty of Education and  
Psychology  
M.S. University of Baroda  
Baroda
5. Mrs. Elisaba Zachariah  
Head of the Department of  
Education  
University of Kerala  
Thycaud  
Trivandrum
6. Prof. V.R. Taneja  
Dean and Head  
Department of Education  
Panjab University  
Chandigarh
7. Prof. C.S. Bennur  
Dean and Principal  
University College of Education  
Karnatak University  
Dharwar
8. Dr. (Miss) A. Nanda  
Director  
State Institute of Education  
Kingsway Camp  
Delhi.
9. Dr. N.K. Upasani  
Director  
State Institute of Education  
M.S. Sadashiv Peeth  
Kumthekar Road  
Poona
10. Shri S.N. Dass  
Principal  
State Institute of Education  
Banipur  
P.O. Baigachi  
Dist. 24 Parganas
11. Dr. G. Gopalakrishna  
Director  
State Council of Educational Research  
and Training  
6-2-688 Chintalbasti  
Hyderabad

12. Begum M. Qureshi  
Director  
State Institute of Education  
Srinagar

21. Dr. (Miss) E. Marr  
Reader  
Department of Teacher-Education  
New Delhi

**Members of Staff of the NCERT**

13. Shri S.L. Ahluwalia  
Head  
Department of Teaching Aids  
New Delhi

22. Dr. (Mrs.) Perin H. Mehta  
Head  
Department of Educational Psychology  
and Foundations of Education  
New Delhi

14. Dr. A.N. Bose  
Prof. and Head of the Department  
of Science  
Regional College of Education  
Ajmer

23. Shri T.S. Mehta  
Field Adviser  
Department of Social Sciences and  
Humanities  
New Delhi

15. Miss A. Chari  
Principal  
Regional College of Education  
Mysore

24. Dr. R.G. Misra  
Field Adviser  
Department of Textbooks  
New Delhi

16. Dr. R.C. Das  
Principal  
Regional College of Education  
Ajmer

25. Dr. M.C. Pant  
Head  
Department of Science Education  
New Delhi

17. Dr. R.H. Dave  
Head  
Department of Textbooks  
New Delhi

26. Shri D.S. Rawat  
Field Adviser  
Department of Pre-Primary and  
Primary Education  
New Delhi

18. Shri M.D. Devadasan  
Prof. and Head of the Department of  
Education  
Regional College of Education  
Bhopal

27. Prof. P.K. Roy  
Principal  
Central Institute of Education  
Delhi

19. Dr. (Miss) S. Dutt  
Reader  
Central Institute of Education  
Delhi

28. Shri N.K. Sanyal  
Field Adviser  
Department of Science Education  
New Delhi

20. Shri C.V. Govinda Rao  
Prof. and Head of the Department of  
Technology  
Regional College of Education  
Mysore

29. Dr. A.N. Sharma  
Reader  
Department of Educational Psychology  
and Foundations of Education  
New Delhi



30. Shri P.D. Sharma  
Principal  
Regional College of Education  
Bhubaneswar

31. Shri Shankar Narayan  
Reader  
Department of Teaching Aids  
New Delhi

32. Dr. G.S. Shrikantia  
Prof. and Head of the Department of  
Science, Regional College of Education  
Bhubaneswar

33. Prof. J.K. Shukla  
Principal  
Regional College of Education  
Bhopal

APPENDIX 3

*Fourth Five Year Plan Allocation*

1969-74

| <i>Department/Scheme</i>  | <i>Allocation<br/>(Rs. in lakhs)</i> |
|---|--------------------------------------|
| 1. Department of Science Education                                      | 30.00                                |
| 2. Central Science Workshop   | 23.00                                |
| 3. National Science Talent Search Scheme                                | 70.00                                |
| 4. Summer Institutes in Science   | 90.00                                |
| 5. Department of Educational Psychology<br>and Foundations of Education | 14.00                                |
| 6. Department of Pre-Primary and Primary Education                      | 7.00                                 |
| 7. Department of Social Sciences and Humanities                         | 10.00                                |
| 8. Department of Teaching Aids  | 5.00                                 |
| 9. Department of Textbooks  | 10.00                                |
| 10. Data Processing and Educational Survey Unit                         | 3.00                                 |
| 11. Department of Teacher Education                                     | 3.00                                 |
| 12. Common Programmes and Services including Buildings                  | 80.00                                |
| 13. Cooperative Research and Development Programme                      | 50.00                                |
| 14. Extension Service Centres and Units                                 | 100.00                               |
| 15. Regional Colleges of Education                                      | 130.00                               |
| 16. Central Institute of Education                                      | 10.00                                |
| 17. Publication Unit  | 75.00                                |
| 18. Department of Adult Education                                       | 10.00                                |
| 19. NCERT Headquarters  | 85.00                                |
| 20. National Council of Science Education                               | 25.00                                |
| <b>TOTAL</b>  | <b>830.00</b>                        |

NOTE—Please see statements for annual phasing of schemes in the following pages.

# ANNUAL PHASING OF SCHEMES

## I. Department of Science Education

|  | 1969-74      | 69-70       | 70-71       | 71-72       | 72-73                                 | 73-74       |
|--|--------------|-------------|-------------|-------------|---------------------------------------|-------------|
| <b>1. Curriculum Development</b>   |              |             |             |             |                                       |             |
| (a) Primary Science Project<br>(UNICEF)  | 0.50         | 0.08        | 0.09        | 0.10        | 0.11                                  | 0.12        |
| (b) Study Group Project  | 18.75        | 6.00        | 6.00        | 2.25        | 2.25                                  | 2.25        |
| (c) Experimental Project<br>on teaching of science<br>and mathematics at the<br>secondary stage.   | 3.75         | —           | 0.75        | 1.00        | 1.00                                  | 1.00        |
| <b>2. Ancillary Curriculum<br/>Projects—production of film<br/>strips, films, designing, new<br/>science experiments equip-<br/>ment and kits</b>  |              |             |             |             |                                       |             |
|  |              |             |             |             | Cost of staff included in 1(c) above. |             |
| <b>3. Development of State<br/>leadership—Training<br/>Leadership courses, im-<br/>proved pre-service, in-service<br/>training, programme orien-<br/>tation programmes for S.I.S.<br/>&amp; S.I.E. personnel</b>                             | 3.70         | 0.21        | 0.45        | 0.99        | 1.01                                  | 1.04        |
| <b>4. Extension and Consult-<br/>ancy Programmes:<br/>Adoption and adaptation of<br/>NCERT curricular mate-<br/>rials, development of<br/>instructional material, pro-<br/>duction of journals and sup-<br/>plementary reading materials</b> | 2.80         | 0.10        | 0.71        | 0.65        | 0.66                                  | 0.68        |
| <b>5. Equipment for Laboratories</b>   | 0.50         | 0.10        | 0.10        | 0.10        | 0.10                                  | 0.10        |
| <b>TOTAL</b>   | <b>30.00</b> | <b>6.49</b> | <b>8.10</b> | <b>5.09</b> | <b>5.13</b>                           | <b>5.19</b> |

## 2. Central Science Workshop

|   | 1969-74      | 69-70       | 70-71       | 71-72       | 72-73       | 73-74       |
|---|--------------|-------------|-------------|-------------|-------------|-------------|
| 1. Design and development, prototype science equipment & limited batch production (including provision for new staff, maintenance etc.) | 18.75        | 1.00        | 3.00        | 4.00        | 4.50        | 5.25        |
| 2. Equipment  | 4.25         | 1.00        | 2.00        | 1.00        | 0.50        | 0.75        |
| <b>TOTAL</b>  | <b>23.00</b> | <b>2.00</b> | <b>5.00</b> | <b>5.00</b> | <b>5.00</b> | <b>6.00</b> |

## 3. National Science Talent Search Scheme

|  | 1969-74      | 69-70       | 70-71       | 71-72        | 72-73        | 73-74        |
|--|--------------|-------------|-------------|--------------|--------------|--------------|
| <b>I. National Science Talent Search</b>   |              |             |             |              |              |              |
| (i) Scholarship, book award, tuition fee of doctoral students as well as provision for administration    | 34.36        | 2.30        | 4.00        | 6.00         | 10.00        | 12.06        |
| (ii) Associated centres  | 6.00         | 1.00        | 1.25        | 1.25         | 1.25         | 1.25         |
| 2. Mathematical olympiads scholarship, book awards, tuition fee, summer school, guides, interviews, etc. | 12.50        | —           | 0.50        | 2.00         | 4.00         | 6.00         |
| 3. Talented Science Teachers Scheme (75 per batch)   | 17.14        | —           | 0.14        | 3.00         | 6.00         | 8.00         |
| <b>TOTAL</b>   | <b>70.00</b> | <b>3.30</b> | <b>5.89</b> | <b>12.25</b> | <b>21.25</b> | <b>27.31</b> |

## 4. Summer Institutes in Science

|                             | 1969-74      | 69-70        | 70-71        | 71-72        | 72-73        | 73-74        |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Summer Institute in Science | 90.00        | 16.00        | 20.00        | 18.00        | 18.00        | 18.00        |
| <b>TOTAL</b>                | <b>90.00</b> | <b>16.00</b> | <b>20.00</b> | <b>18.00</b> | <b>18.00</b> | <b>18.00</b> |

## 5. Department of Educational Psychology and Foundations of Education

|   | 1969-74      | 69-70       | 70-71       | 71-72       | 72-73       | 73-74       |
|---|--------------|-------------|-------------|-------------|-------------|-------------|
| 1. Further work on current research projects and on new projects to be taken up by existing staff in educational psychology | 2.22         | 0.32        | 0.50        | 0.50        | 0.50        | 0.40        |
| 2. Extension programmes   | 1.20         | —           | 0.30        | 0.30        | 0.30        | 0.30        |
| 3. Seminar to determine research needs in Educational Psychology  | 0.24         | —           | 0.12        | —           | —           | 0.12        |
| 4. Development of work in the area of Guidance  | 2.00         | —           | 0.30        | 0.45        | 0.55        | 0.70        |
| 5. Research in and development of instructional process   | 2.90         | 0.90        | 0.50        | 0.50        | 0.50        | 0.50        |
| 6. Development of work in the area of Motivation and Group Process  | 1.23         | 0.43        | 0.20        | 0.20        | 0.20        | 0.20        |
| 7. Developmental Norms Project, 2½-5 years  | 0.67         | 0.58        | 0.09        | —           | —           | —           |
| 8. Development of measures of appraisal (mainly diagnostic tests, inventories, rating scales)                               | 1.00         | —           | 0.25        | 0.25        | 0.25        | 0.25        |
| 9. Field investigations in the Foundations of Education   | 0.50         | —           | 0.10        | 0.14        | 0.14        | 0.12        |
| 10. Development of work in the area of Talent   | 1.00         | —           | 0.20        | 0.23        | 0.27        | 0.30        |
| 11. Development of work in the area of Learning   | 1.04         | —           | 0.20        | 0.25        | 0.28        | 0.31        |
| <b>TOTAL</b>  | <b>14.00</b> | <b>2.23</b> | <b>2.76</b> | <b>2.82</b> | <b>2.99</b> | <b>3.20</b> |

## 6. Department of Pre-Primary and Primary Education

|  | 1969-74     | 69-70       | 70-71       | 71-72       | 72-73       | 73-74       |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| 1. Comprehensive Curriculum—Development of Curriculum, Textual Material & Teaching Techniques including Art, Craft and work experience | 1.81        | 0.52        | 0.35        | 0.34        | 0.50        | 0.10        |
| 2. Evaluation Programmes   | 0.45        | 0.03        | 0.15        | 0.19        | —           | 0.08        |
| 3. Reducing Wastage and Stagnation at the Primary level  | 1.81        | 0.14        | 0.49        | 0.40        | 0.43        | 0.35        |
| 4. Educational Planning and Administration at Primary level  | 0.32        | 0.03        | 0.08        | 0.07        | 0.10        | 0.04        |
| 5. Inspection and Supervision  | 0.07        | 0.07        | —           | —           | —           | —           |
| 6. Language Programme—Improving Reading  | 0.80        | 0.06        | 0.27        | 0.27        | 0.10        | 0.10        |
| 7. Extension Services Programme  | 0.94        | —           | 0.37        | 0.21        | 0.21        | 0.15        |
| 8. Seminars on Elementary Education  | 0.80        | —           | 0.20        | 0.20        | 0.20        | 0.20        |
| <b>TOTAL</b>   | <b>7.00</b> | <b>0.85</b> | <b>1.91</b> | <b>1.68</b> | <b>1.54</b> | <b>1.02</b> |

## 7. Department of Social Sciences and Humanities

|                                       | 1969-74      | 69-70       | 70-71       | 71-72       | 72-73       | 73-74       |
|---------------------------------------|--------------|-------------|-------------|-------------|-------------|-------------|
| 1. Social Sciences Programmes         | 4.70         | 0.65        | 1.05        | 1.00        | 1.00        | 1.00        |
| 2. Languages Programme                | 3.00         | 0.71        | 0.49        | 0.60        | 0.60        | 0.60        |
| 3. Comprehensive Curriculum Programme | 1.50         | 0.74        | 0.55        | 0.15        | 0.06        | —           |
| 4. Language Research Programmes       | 0.80         | 0.23        | 0.24        | 0.13        | 0.10        | 0.10        |
| <b>TOTAL</b>                          | <b>10.00</b> | <b>2.33</b> | <b>2.33</b> | <b>1.88</b> | <b>1.76</b> | <b>1.70</b> |

### 8. Department of Teaching Aids

|   | 1969-74     | 69-70       | 70-71       | 71-72       | 72-73       | 73-74       |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| 1. Film Production Unit                         | 0.47        | —           | 0.17        | 0.10        | 0.10        | 0.10        |
| 2. A-V. Co-production Scheme                    | 0.84        | —           | 0.36        | 0.16        | 0.16        | 0.16        |
| 3. General Extension and Technical Programme    | 0.53        | 0.25        | 0.07        | 0.07        | 0.07        | 0.07        |
| 4. Central Film Library and Extension           | 2.21        | —           | 0.73        | 0.50        | 0.50        | 0.48        |
| 5. Research in Efficacy and Utilisation of Aids | 0.20        | —           | 0.05        | 0.05        | 0.05        | 0.05        |
| 6. Additional Staff                             | 0.75        | —           | 0.15        | 0.18        | 0.20        | 0.22        |
| <b>TOTAL</b>                                    | <b>5.00</b> | <b>0.25</b> | <b>1.53</b> | <b>1.06</b> | <b>1.08</b> | <b>1.08</b> |

### 9. Department of Textbooks

|  | 1969-74      | 69-70       | 70-71       | 71-72       | 72-73       | 73-74       |
|--|--------------|-------------|-------------|-------------|-------------|-------------|
| 1. Evaluation of Textbooks, Research and Studies     | 5.60         | 0.86        | 1.50        | 0.98        | 1.13        | 1.13        |
| 2. Development and Dissemination of material         | 1.24         | 0.13        | 0.51        | 0.25        | 0.27        | 0.08        |
| (a) Textbooks  |              |             |             |             |             |             |
| (b) Examination Reform                               |              |             |             |             |             |             |
| 3. Training, Extension and Consultative Services     | 2.08         | 0.18        | 0.70        | 0.40        | 0.40        | 0.40        |
| (a) Textbooks  |              |             |             |             |             |             |
| (b) Examination Reform                               |              |             |             |             |             |             |
| 4. Coordination & Clearing-House Functions           | 0.34         | 0.02        | 0.08        | 0.08        | 0.08        | 0.08        |
| 5. Maintenance of National Pool of Textual Materials | 0.65         | 0.25        | 0.10        | 0.10        | 0.10        | 0.10        |
| 6. Research & Studies in Examination Reform          | 0.09         | —           | 0.01        | 0.02        | 0.03        | 0.03        |
| <b>TOTAL</b>   | <b>10.00</b> | <b>1.44</b> | <b>2.90</b> | <b>1.83</b> | <b>2.01</b> | <b>1.82</b> |

**10. Data Processing and Educational Survey Unit**

|  | 1969-74     | 69-70       | 70-71       | 71-72       | 72-73       | 73-74       |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| 1. Organisation of Educational Surveys | 2.50        | 0.50        | 0.50        | 0.50        | 0.50        | 0.50        |
| 2. Data Processing Programme           | 0.50        | 0.10        | 0.10        | 0.10        | 0.10        | 0.10        |
| <b>TOTAL</b>                           | <b>3.00</b> | <b>0.60</b> | <b>0.60</b> | <b>0.60</b> | <b>0.60</b> | <b>0.60</b> |

**11. Department of Teacher Education**

|   | 1969-74     | 69-70       | 70-71       | 71-72       | 72-73       | 73-74       |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| 1. Improvement in Admission Procedures  | 0.07        | —           | 0.04        | 0.02        | 0.01        | —           |
| 2. Improvement in Evaluation Practices  | 0.25        | —           | 0.14        | 0.11        | —           | —           |
| 3. Grading of Teacher Training Institutions   | 0.02        | —           | 0.01        | 0.01        | —           | —           |
| 4. Improvement and Growth of Teacher Education  | 0.50        | —           | —           | 0.25        | —           | 0.25        |
| 5. Intensive Teacher Education Programmes   | 0.45        | —           | —           | 0.15        | 0.15        | 0.15        |
| 6. Promotion of Research in Teacher Training Institutions                                       | 0.50        | 0.05        | 0.10        | 0.10        | 0.10        | 0.15        |
| 7. Encouragement to Experimentation & Innovations in practices in Teacher Training Institutions | 0.21        | —           | 0.06        | 0.06        | 0.06        | 0.03        |
| 8. Correspondence Course in Elementary Teachers   | 0.10        | 0.10        | —           | —           | —           | —           |
| 9. Conferences/Seminars, etc.   | 0.90        | —           | 0.30        | 0.20        | 0.20        | 0.20        |
| <b>TOTAL</b>  | <b>3.00</b> | <b>0.15</b> | <b>0.65</b> | <b>0.90</b> | <b>0.52</b> | <b>0.78</b> |



## 12. Common Programmes and Services including Buildings

|  | 1969-74      | 69-70        | 70-71        | 71-72        | 72-73        | 73-74        |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
| 1. Buildings at the NIE Campus                         | 52.00        | 11.00        | 15.00        | 10.00        | 8.00         | 8.00         |
| 2. Research Fellowships                                | 3.00         | 0.30         | 0.70         | 0.70         | 0.70         | 0.60         |
| 3. Summer Institutes<br>(Organised by NIE Departments) | 15.00        | 2.00         | 3.15         | 3.25         | 3.25         | 3.35         |
| 4. Library Documentations and Library Services         | 10.00        | 2.00         | 2.00         | 2.00         | 2.00         | 2.00         |
| <b>TOTAL</b>   | <b>80.00</b> | <b>15.30</b> | <b>20.85</b> | <b>15.95</b> | <b>13.95</b> | <b>13.95</b> |

## 13. Cooperative Research and Development Programme

|   | 1969-74      | 69-70       | 70-71        | 71-72       | 72-73       | 73-74       |
|---|--------------|-------------|--------------|-------------|-------------|-------------|
| 1. Grant-in-aid for Research Project  | 15.00        | 3.00        | 3.00         | 3.00        | 3.00        | 3.00        |
| 2. Experimental Projects in School  | 5.00         | 1.00        | 1.00         | 1.00        | 1.00        | 1.00        |
| 3. Developmental Norms Project (5½-11 years)  | 4.65         | 0.40        | 1.50         | 1.50        | 1.25        | —           |
| 4. Cooperative Test Development   | 4.70         | 1.75        | 1.75         | 0.40        | 0.40        | 0.40        |
| 5. International Educational Achievement Project  | 2.44         | 0.50        | 1.94         | —           | —           | —           |
| 6. Project for development of methods and materials for teaching Modern Indian Languages as second and third languages. | 6.10         | 2.10        | 2.00         | 2.00        | —           | —           |
| 7. Cooperative Research in Adolescence  | 1.10         | —           | 0.30         | 0.40        | 0.40        | —           |
| 8. Research in Languages, Evaluation, Guidance and other fields   | 11.01        | —           | —            | 3.67        | 3.67        | 3.67        |
| <b>TOTAL</b>  | <b>50.00</b> | <b>8.75</b> | <b>11.49</b> | <b>1.97</b> | <b>9.72</b> | <b>8.07</b> |

#### 14. Extension Service Centres and Units

|  | 1969-74       | 69-70        | 70-71        | 71-72        | 72-73        | 73-74        |
|--|---------------|--------------|--------------|--------------|--------------|--------------|
| Grants to Extension Services Centres and Units located in the training colleges and extension centres located in the Primary training institutions | 100.00        | 20.00        | 20.00        | 20.00        | 20.00        | 20.00        |
| <b>TOTAL</b>   | <b>100.00</b> | <b>20.00</b> | <b>20.00</b> | <b>20.00</b> | <b>20.00</b> | <b>20.00</b> |

#### 15. Regional Colleges of Education

|                            | 1969-74       | 69-70        | 70-71        | 71-72        | 72-73        | 73-74        |
|----------------------------|---------------|--------------|--------------|--------------|--------------|--------------|
| 1. Scholarship             | 50.20         | 10.20        | 10.00        | 10.00        | 10.00        | 10.00        |
| 2. Programmes              | 37.80         | 6.50         | 7.30         | 8.00         | 8.00         | 8.00         |
| 3. Buildings               | 32.00         | 10.00        | 5.00         | 5.00         | 6.00         | 6.00         |
| 4. Equipment and Furniture | 10.00         | 2.00         | 2.00         | 2.00         | 2.00         | 2.00         |
| <b>TOTAL</b>               | <b>130.00</b> | <b>28.70</b> | <b>24.30</b> | <b>25.00</b> | <b>26.00</b> | <b>26.00</b> |

#### 16. Central Institute of Education

|                                   | 1969-74      | 69-70       | 70-71       | 71-72       | 72-73       | 73-74       |
|-----------------------------------|--------------|-------------|-------------|-------------|-------------|-------------|
| 1. M.A. in Education              | 6.08         | —           | 1.09        | 1.64        | 1.66        | 1.60        |
| 2. Special Education Unit         | 2.26         | —           | —           | 0.83        | 0.71        | 0.72        |
| 3. Enrichment of Ph.D. Programmes | 0.26         | —           | —           | —           | 0.08        | 0.18        |
| 4. Award of Junior Fellowships    | 0.50         | 0.10        | 0.10        | 0.10        | 0.10        | 0.10        |
| 5. Language Laboratory            | 0.50         | 0.50        | —           | —           | —           | —           |
| 6. Addition to CIE Building       | 0.40         | 0.40        | —           | —           | —           | —           |
| <b>TOTAL</b>                      | <b>10.00</b> | <b>1.00</b> | <b>1.19</b> | <b>2.57</b> | <b>2.55</b> | <b>2.60</b> |

### 17. Publication Unit

|  | 1969-74      | 69-70        | 70-71        | 71-72        | 72-73        | 73-74        |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
| Printing and Publication of Educational Literature | 75.00        | 16.25        | 18.25        | 15.50        | 13.00        | 12.00        |
| <b>TOTAL</b>                                       | <b>75.00</b> | <b>16.25</b> | <b>18.25</b> | <b>15.50</b> | <b>13.00</b> | <b>12.00</b> |

### 18. Department of Adult Education

|                                    | 1969-74      | 69-70       | 70-71       | 71-72       | 72-73       | 73-74       |
|------------------------------------|--------------|-------------|-------------|-------------|-------------|-------------|
| Grant-in-aid to Polyvalent Centres | 10.00        | 1.75        | 1.75        | 2.50        | 2.00        | 2.00        |
| <b>TOTAL</b>                       | <b>10.00</b> | <b>1.75</b> | <b>1.75</b> | <b>2.50</b> | <b>2.00</b> | <b>2.00</b> |

### 19. NCERT Headquarters

|  | 1969-74      | 69-70       | 70-71        | 71-72        | 72-73        | 73-74        |
|--|--------------|-------------|--------------|--------------|--------------|--------------|
| 1. Customs duties, incidental on foreign stores        | 2.00         | —           | 0.50         | 0.50         | 0.50         | 0.50         |
| 2. Grants to professional organisations                | 2.50         | 0.50        | 0.50         | 0.50         | 0.50         | 0.50         |
| 3. Meetings of Study Group, Evaluation of State scheme | 2.00         | 0.50        | 0.50         | 0.35         | 0.35         | 0.30         |
| 4. Visits of NCERT Officers                            | 1.00         | —           | 0.25         | 0.25         | 0.25         | 0.25         |
| 5. Field Units   | 12.50        | —           | 2.00         | 3.00         | 3.50         | 4.00         |
| 6. Equipment   | 3.00         | 1.00        | 0.75         | 0.50         | 0.50         | 0.25         |
| 7. Population Education                                | 3.00         | —           | 0.75         | 0.75         | 0.75         | 0.75         |
| 8. Language Laboratories                               | 6.00         | —           | 1.75         | 2.00         | 1.25         | 1.00         |
| 9. Regional Film Libraries                             | 8.00         | —           | 3.20         | 2.40         | 1.20         | 1.20         |
| 10. Field Officers in States                           | 40.00        | —           | 6.00         | 10.00        | 12.00        | 12.00        |
| 11. Special programmes Pre-Primary Education           | 5.00         | —           | 1.00         | 1.25         | 1.25         | 1.50         |
| <b>TOTAL</b>   | <b>85.00</b> | <b>2.00</b> | <b>17.20</b> | <b>21.50</b> | <b>22.05</b> | <b>22.25</b> |

20. National Council of Science Education

---

|                                       | 1969-74      | 69-70       | 70-71        | 71-72       | 72-73       | 73-74       |
|---------------------------------------|--------------|-------------|--------------|-------------|-------------|-------------|
| National Council of Science Education | 25.00        | 3.50        | 12.50        | 3.00        | 3.00        | 3.00        |
| <b>TOTAL</b>                          | <b>25.00</b> | <b>3.50</b> | <b>12.50</b> | <b>3.00</b> | <b>3.00</b> | <b>3.00</b> |

---

## APPENDIX 4

### *Policy Regarding Textbooks*

#### *Report of the Committee on the Use of NCERT Textbooks in the States*

The Committee appointed for the purpose by the Governing Body at its meeting held on 7th July, 1969 met in the room of Shri T.R. Jayaraman, Joint Secretary (G), on the 31st January, 1970 at 10.30 A.M. when the following were present:

Dr. B.N. Ganguli

Shri T.R. Jayaraman  
Joint Secretary (G)  
Ministry of Education and Youth Services

Prof. S.V.C. Aiya  
Director, NCERT

2. The Committee felt that in addition to dealing with the States of Jammu & Kashmir, Rajasthan, Mysore and West Bengal as desired by the resolution of the Governing Body, it should not exclude considering the wider issue of the NCERT textbooks and their use in the States.

3. The actual purchase of textbooks is not a habit with all the school-going students. Some of them are too poor to afford the purchase of textbooks. Some of the State authorities are very particular about preparing their own syllabus and recommending the textbook which covers such a syllabus. Some teachers furnish cyclostyled notes etc. which students prefer to purchase. And so on. Further, some of the publishing houses are also interested in the trade. Taking an overall view, it can be said that only a certain percentage of students studying in a class may purchase textbooks. This percentage gets further reduced through the purchase of second-hand books as most States prescribe books for a certain number of years.

4. In most of the States, school education is through the regional languages and book published either in English or Hindi do not by themselves become very handy for direct adoption.

5. The list of NCERT publications used as reference book or source material in the four States mentioned is given in Annexure 1. Annexure 2 furnishes the reasons for the States not using the NCERT textbooks. The general contention has been that the books do not correspond to their syllabus.

6. A detailed analysis of the syllabus prescribed for the different subjects in the different States as carried out indicates that 70 per cent of the syllabus for any one class is covered by what is written in an NCERT textbook. But, this 70 per cent has to be drawn from the different books written by the NCERT for the different classes. Here lies the real problem.

7. Annexure 4 gives all the details pertaining to all the books published by the NCERT up to 1st February, 1970. It will be seen that the general performance of the NCERT is not as gloomy as usually visualised.

8. A Conference on Textbooks had been convened under the auspices of the NCERT

on the 15th and 16th January, 1970 when the officers concerned with the production of textbooks in the States were present. After a detailed discussion at the Conference and informally outside the Conference, it transpired that the position about NCERT textbooks can be considerably improved if some of the drawbacks currently existing are removed.

9. The NCERT should in future explore the possibility of publishing monographs on specific items of a syllabus. In such a case a combination of such monographs would furnish the required 70 per cent material of the school textbooks for a particular class in a particular State. This will make it possible for the State to adapt the NCERT material. In order to further assist the States, it was felt necessary to standardize on the size of the book for the primary, middle and secondary stages separately. Once the size of the book is standardized, it becomes possible to supply through the NCERT glossy prints of diagrams, figures or illustrations. These could be directly used by the States in their books as the size of the print would correspond to what is necessary for going into the book. In addition, the NCERT should indicate specifically the monographs or the portions from the different books which would meet the requirements of a textbook in a State. This has to be supplemented by additional material. This could also be written by the NCERT, evaluated and furnished to the State, if required. Even such a step will not assist the complete adoption of the NCERT material unless some provision is made to undertake translation of such material into the regional languages. Facilities for this purpose are being attempted to be created in the NCERT by utilising its Regional Colleges of Education. These Colleges have language lecturers for the languages of the region and academic staff for different subjects. Hence, they could be utilised for finalising the draft of the textbook in the regional language based on the guide-lines furnished by the N.I.E. This technique of assisting the States has just been suggested and the reactions from the States are awaited.

10. The Director had met the Director of Public Instruction and the Officer in Charge of the Education Department in Mysore. These persons indicated that if something corresponding in full to the syllabus prescribed by the Mysore State is furnished, it could be favourably considered. A follow-up of this with the Officer in Charge of Textbooks who attended the Conference on Textbooks indicated a similar view.

11. The NCERT textbooks may by themselves be very good and a certain section of the school population may buy them to enlarge their own knowledge, etc. Unfortunately, for such purposes, the required publicity for the NCERT textbooks does not exist. Similarly, no concerted attempt has been made to deal with the use of the NCERT textbooks on a person to person basis in the different States. This could probably be done when a Field Adviser of the NCERT is attached to each State and he is so chosen that he has intimate contact with the State Officers, he can function as a good public relations man and he knows the language of the State.

12. In view of what is stated above, the NCERT is currently examining the question of the feasibility of publishing monographs, the question of furnishing ready made textual material to correspond to a syllabus, the question of appointing a Field Officer in each State and the question of improving the publicity for the NCERT textbooks.

13. The Committee feels that after examinations of these problems, if policy decisions are taken and implemented quickly, it should be possible for the NCERT to furnish material for adaptation in the State or material for being directly used by the States for printing their own textbooks.

14. The Director informed the Committee that he impressed on the representatives of States at the last Conference on Textbooks on the 15th and 16th of January that a syllabus by itself does not mean much. Even for a given syllabus, the method of presentation of the subject matter and the art of writing make a vital difference. He also pointed out that injecting what is latest in knowledge and injecting *indirectly* concepts on conservation of natural resources, national integration, population, nutrition and the inter-dependent economy of Indian States etc. together with guide-lines for evaluation to test the student could go a long way to make one book more important and useful

than another even when both cover the same syllabus. A follow-up of these concepts more specifically could be useful.

Sd/- DR. B.N. GANGULI  
*Chairman*

Sd/- T.R. JAYARAMAN  
*Member*

Sd/- S.V.C. Aiya  
*Member*

New Delhi  
7-2-1970

NOTE : The above report was submitted to the President as desired by the Governing Body. On a consideration of the report, Government issued a letter on policy regarding the use of the NCERT books by the State Governments which is reproduced in Annexure 6 and addressed a letter to all the State Governments which is reproduced in Annexure 7.

## Annexure I

### LIST OF NCERT PUBLICATIONS USED AS REFERENCE BOOK OR SOURCE MATERIAL

#### MYSORE

1. Hindi Primer and Hindi Reader for Class I.
2. Hindi Reader for Class II, III, IV, V.
3. Hindi Textbook for Class VI—Rashtra Bharati—Part I.
4. Hindi Textbook for Class VII—Rashtra Bharati—Part II.
5. Rashtra Bharati—Part III—Hindi Textbook for Class VIII.
6. Ancient India—A Textbook of History for Middle Schools.
7. Practical Geography for Secondary Schools.
8. Economic Geography for Secondary Schools.
9. Social Studies Textbooks for Classes III, IV and V and Teachers' Manual for Classes I & II.
10. Engineering Drawing for Secondary and Technical Schools.
11. Elements of Electrical Engineering for Secondary and Technical Schools.
12. Elements of Mechanical Engineering—A Textbook for Secondary and Technical Schools.
13. Workshop Practice—A Textbook for Secondary and Technical Schools (Part I, II).
14. A Textbook of Physics for Secondary Schools (Part I).
15. A Textbook of Algebra for Secondary Schools (Part I and II).
16. Elements of Probability—A Textbook for Secondary Schools.

#### JAMMU & KASHMIR

1. Hindi Reader for Class IV.
2. Social Studies Textbooks for Classes III, IV and V and Teachers' Manual for Classes I and II.

#### RAJASTHAN

1. Practical Geography for Secondary Schools.
2. Economic Geography for Secondary Schools.

#### WEST BENGAL

Nil



## Annexure 2

All the four States have reported that they cannot prescribe several of the NCERT textbooks as they do not correspond to the syllabus prevailing in the State or because they have already recommended books up to 1970.

## Annexure 3

### STATE SYLLABI

On making an analysis of the syllabus prescribed for the different subjects in the different States in Social Sciences, Sciences and Mathematics, it has been found that more than 70 per cent of the syllabus is common. However, the distribution of the syllabus class-wise differs from State to State depending also on the overall duration of the school course. Consequently, a book written for a certain class in the NCERT may not necessarily suit that class. Actually the best fit of the textual material for a certain class is an integrated assembly of portions from books written by the NCERT for the different classes.

## Annexure 4

| S. No. | Title | Edition | Year and month of publication | Copies printed in thousands | No. of copies sold in thousands | States which have recommended | States which have prescribed |
|--------|-------|---------|-------------------------------|-----------------------------|---------------------------------|-------------------------------|------------------------------|
| 1      | 2     | 3       | 4                             | 5                           | 6                               | 7                             | 8                            |

### TEXTBOOK (ENGLISH MEDIUM)

#### GENERAL SCIENCE

|    |   |            |              |        |      |   |
|----|---|------------|--------------|--------|------|---|
| 1. | General Science<br>Primary Schools<br>Book I (for Class III)            | 1st<br>2nd | 8/67<br>4/68 | 5<br>8 | 11.5 |   |
| 2. | General Science for<br>Primary Schools<br>Book II (for<br>Class IV)     | 1st<br>2nd | 9/67<br>7/68 | 5<br>8 | 12.5 |   |
| 3. | General Science<br>for You: A Text-<br>book for Secun-<br>dary Schools. | 1st        | 12/68        | 5      |      | The book has been sent to States/Union Territories for their approval/comments. |

#### BIOLOGY

|    |  |                   |                      |                |      |  |
|----|--|-------------------|----------------------|----------------|------|--|
| 4. | Biology: Science<br>for Middle<br>Schools Part I<br>(for Class VI) | 1st<br>2nd<br>3rd | 8/67<br>9/68<br>6/69 | 15<br>10<br>10 | 26.5 |  |
| 5. | Biology: Science<br>for Middle Schools<br>Part II (for Class VII)  | 1st<br>2nd        | 7/68<br>7/69         | 10<br>15       |      | } Andhra Pradesh, Gujarat. Delhi and Central Schools |

| 1   | 2  | 3                               | 4                                     | 5                       | 6  | 7                                 | 8  |
|-----|--|---------------------------------|---------------------------------------|-------------------------|----|-----------------------------------|--|
| 6.  | Biology: Science for Middle Schools Part III (for Class VIII)          | 1st                             | 8/69                                  | 20                      | 7  | —                                 | Delhi and Central Schools.   |
| 7.  | Biology: A Text-book for Higher Secondary Schools Section I            | 1st<br>2nd<br>3rd<br>4th<br>5th | 9/65<br>7/66<br>7/67<br>9/67<br>4/69  | 11<br>9<br>8<br>8<br>10 | 39 |                                   | M.P.,<br>Tamil Nadu,<br>Punjab,<br>Nagaland<br>A. & N.<br>Islands,<br>Delhi, Goa-<br>Daman &<br>Diu, H.P.,<br>Manipur,<br>Haryana,<br>Central<br>Schools.  |
| 8.  | Bioogy : A Text-book for Higher Secondary Schools Section II           | 1st<br>2nd<br>3rd<br>4th<br>5th | 2/65<br>8/66<br>8/67<br>12/67<br>5/69 | 10<br>5<br>5<br>8<br>10 |    | Andhra Pradesh,<br>Uttar Pradesh. | M.P.,<br>Tamil Nadu,<br>Punjab,<br>Nagaland,<br>A. & N.<br>Islands,<br>Delhi, Goa-<br>Daman &<br>Diu, H.P.,<br>Manipur,<br>Haryana,<br>Central<br>Schools. |
| 9.  | Biology: A Text-book for Higher Secondary Schools Section III          | 1st<br>2nd<br>3rd<br>4th        | 9/65<br>8/66<br>8/67<br>12/68         | 11<br>5<br>5<br>11      | 26 | Andhra Pradesh,<br>Uttar Pradesh. | M.P.,<br>Tamil Nadu,<br>Punjab,<br>Nagaland,<br>A. & N.<br>Islands,<br>Delhi, Goa-<br>Daman &<br>Diu, H.P.,<br>Manipur,<br>Haryana,<br>Central<br>Schools. |
| 10. | Biology: A Text-book for Higher Secondary Schools Sections IV and V.   | 1st<br>2nd                      | 5/66<br>5/69                          | 16<br>15                | 16 |                                   | M.P.,<br>Tamil Nadu,<br>Punjab,<br>Nagaland,<br>A. & N.<br>Islands,<br>Delhi, Goa-<br>Daman &<br>Diu, H.P.,<br>Manipur,<br>Haryana,<br>Central<br>Schools. |
| 11. | Biology: A Text-book for Higher Secondary Schools Sections VI and VII. | 1st<br>2nd                      | 2/67<br>6/69                          | 15<br>10                | 15 |                                   |  |

### CHEMISTRY

|     |  |            |              |          |     |  |
|-----|--|------------|--------------|----------|-----|--|
| 12. | Chemistry: Science for Middle Schools Part I (for Class VII)   | 1st<br>2nd | 7/68<br>6/69 | 10<br>15 | 16  | A.P. (adapted Delhi & translated and into Telugu) Central Gujarat. Schools |
| 13. | Chemistry: Science for Middle Schools Part II (for Class VIII) | 1st        | 8/69         | 20       | 7.5 | Experimental edition   |

| 1   | 2  | 3   | 4     | 5 | 6   | 7   | 8 |
|-----|--|-----|-------|---|-----|---|---|
| 14. | Chemistry: A Textbook for Secondary Schools Part I | 1st | 10/68 | 5 | 1.5 | The book has been sent to States/Union Territories for their approval/comments. |   |

### PHYSICS

|     |   |                   |                      |                |     |  |                                  |
|-----|---|-------------------|----------------------|----------------|-----|--|----------------------------------|
| 15. | Physics: Science for Middle Schools Part I (for Class VI)     | 1st<br>2nd<br>3rd | 8/67<br>9/68<br>7/69 | 15<br>10<br>10 | 28  | A.P.,<br>Gujarat.  | Delhi and<br>Central<br>Schools. |
| 16. | Physics: Science for Middle Schools Part II (for Class VII)   | 1st<br>2nd        | 7/67<br>6/69         | 10<br>15       | 14  | A.P.,<br>Gujarat.  | Delhi and<br>Central<br>Schools. |
| 17. | Physics: Science for Middle Schools Part III (for Class VIII) | 1st               | 8/69                 | 20             | 8   |  | Delhi and<br>Central<br>Schools. |
| 18. | Physics: A Text-book for Higher Secondary Schools Part I.     | 1st               | 3/68                 | 5              | 1.8 | Mysore, Laccadives, Kerala, A.P., Haryana, Punjab, Rajasthan, H.P., Chandigarh |                                  |

### MATHEMATICS

|     |  |                   |                      |               |      |                 |                                  |
|-----|--|-------------------|----------------------|---------------|------|-----------------|----------------------------------|
| 19. | Arithmetic-Algebra: Mathematics for Middle Schools Part I (for Class VI)     | 1st<br>2nd<br>3rd | 8/67<br>9/68<br>6/69 | 15<br>8<br>11 | 28   | Andhra Pradesh. | Delhi and<br>Central<br>Schools. |
| 20. | Arithmetic-Algebra: Mathematics for Middle Schools Part II (for Class VII)   | 1st<br>2nd        | 8/68<br>6/69         | 10<br>15      | 15.5 | —               | Delhi and<br>Central<br>Schools. |
| 21. | Arithmetic-Algebra: Mathematics for Middle Schools Part III (for Class VIII) | 1st               | 7/79                 | 20            | 8    | —               | Delhi and<br>Central<br>Schools. |

| 1   | 2  | 3                        | 4                             | 5                    | 6   | 7  | 8   |
|-----|--|--------------------------|-------------------------------|----------------------|-----|--|---|
| 22. | Geometry: Mathematics for Middle Schools Part I (for Class VI)     | 1st<br>2nd<br>3rd        | 9/67<br>10/68<br>4/69         | 15<br>10<br>12       | 29  | Andhra Pradesh   | Delhi and Central Schools.                                  |
| 23. | Geometry: Mathematics for Middle Schools Part II (for Class VII)   | 1st<br>2nd               | 7/68<br>6/69                  | 10                   | 5.5 | —  | Delhi and Central Schools.                                  |
| 24. | Geometry: Mathematics for Middle Schools Part III (for Class VIII) | 1st                      | 8/69                          | 20                   | 8   | —  | Delhi and Central Schools.                                  |
| 25. | Algebra: A Textbook for Secondary Schools Part I.                  | 1st<br>2nd<br>3rd<br>4th | 8/66<br>7/67<br>3/68<br>12/68 | 10<br>15<br>10<br>25 | 42  | Kerala, A.P., Mysore, Maharashtra, Goa, Daman & Diu, Tamil Nadu, Rajasthan.    | Nagaland, A. & N. Islands, Delhi, Manipur, Central Schools. |
| 26. | Algebra: A Textbook for Secondary Schools Part II.                 | 1st<br>2nd               | 2/68<br>12/68                 | 15<br>25             | 22  | —  | —   |
| 27. | Elements of Probability—A Textbook for Secondary Schools.          | 1st                      | 5/68                          | 2.5                  | 1.5 | Kerala, Mysore, Goa, Daman & Diu, Rajasthan, Pondicherry.                      | —   |
| 28. | Insight into Mathematics: Book I for Class I.                      | 1st                      | 7/69                          | 3                    | —   | The book has been sent to State/Union Territories for their approval/comments. |   |

### TECHNOLOGY

|     |  |            |              |         |      |  |                                    |
|-----|--|------------|--------------|---------|------|--|------------------------------------|
| 29. | Engineering Drawing: A Textbook for Technical Schools.               | 1st        | 5/67         | 25      | 13   | Tamil Nadu, Kerala (translating into Malayalam), Mysore, Pondicherry.                        | Delhi, Punjab, H.P., Manipur.      |
|     | Elements of Electrical Engineering: A Textbook for Technical Schools | 1st<br>2nd | 1/68<br>7/69 | 3<br>10 | 11.5 | Gujarat, Dadar & Nagar Haveli, Mysore, Tamilnadu, Kerala (Malayalam translation undertaken). | Punjab, Haryana, Himachal Pradesh. |

| 1                     | 2   | 3          | 4            | 5        | 6   | 7  | 8   |
|-----------------------|---|------------|--------------|----------|-----|--|---|
| 31.                   | Elements of Mechanical Engineering: A Textbook for Technical Schools.               | 1st<br>2nd | 1/68<br>7/69 | 25<br>10 | 25  | A.P., Mysore, Kerala, and Tamil Nadu.  |   |
| 32.                   | Workshop Practice: A Textbook for Technical Schools Part I.                         | 1st        | 2/68         | 2.5      | 1   | A.P., Mysore, Gujarat, Kerala, Tamil Nadu.                                     |   |
| 33.                   | Workshop Practice: A Textbook for Technical Schools Part II.                        | 1st        | 6/68         | 2.5      | 0.9 | Goa-Daman & Diu, Pondicherry, Chandigarh, Dadar & Nagar Haveli, Punjab.        |   |
| 34.                   | Reading Blue Prints and Sketching: A Textbook for Technical and Vocational Schools. | 1st        | 11/68        | 3        | 0.2 | The book has been sent to State/Union Territories for their approval/comments. |   |
| <b>SOCIAL STUDIES</b> |   |            |              |          |     |  |   |
| 35.                   | Our Country—India: Book I (for Class III)   | 1st        | 8/68         | 10       | 5.1 | J. & K., Delhi, Bihar, M.P., Kerala, Tripura, Goa, Daman and Diu.              | Maha-rashtra, Mysore, Manipur, Central School, A. & N. Islands. |
| 36.                   | Our Country-India: Book II (for Class IV)   | 1st        | 9/68         | 10       | 4.9 | J. & K., Maharashtra, Goa, Daman and Diu, Tripura, Mysore, Kerala, M.P.        | Delhi, A. & N. Islands, Bihar, Manipur, Central Schools.        |
| 37.                   | India and the World: Book III (for Class V)   | 1st        | 2/69         | 10       | 5.5 | —  | —   |
| 38.                   | Local Govt.: A Textbook of Civics for Middle (for Class VI).                        | 1st        | 7/69         | 10       | 1   | —  | Bihar, Delhi, Central Schools.                                  |

| 1                | 2   | 3          | 4             | 5       | 6   | 7   | 8               |
|------------------|---|------------|---------------|---------|-----|---|-----------------|
| 39.              | Social Studies: A Textbook for Higher Secondary Schools Volume I.               | 1st        | 3/69          | 2.5     | 0.4 |   | Central Schools |
| <b>GEOGRAPHY</b> |   |            |               |         |     |   |                 |
| 40.              | Practical Geography: A Textbook for Secondary Schools.                          | 1st        | 4/67          | 5       | 4   | Mysore, A.P. Delhi, Tamil Nadu, Manipur, Kerala, Rajas- Punjab, than, Pondicherry, Haryana, Gujarat, H.P., Dadar & Central Schools. Nagar Haveli. |                 |
| 41.              | Economic Geography: A Textbook for Secondary Schools.                           | 1st        | 9/67          | 5       | 4   | Mysore, Delhi, A. & Tamil Nadu, N. Islands, Kerala, Manipur, Pondicherry, Punjab Rajasthan, Haryana, Laccadives. H.P. and Central Schools.        |                 |
| 42.              | Physical Geography: A Textbook for Secondary Schools.                           | 1st        | 2/68          | 2.5     | 2   | Tamil Nadu, Central Goa, Daman Schools, & Diu, Kerala. Delhi.   |                 |
| 43.              | Africa and Asia: A Geography Textbook for Middle Schools Part I (for Class VI). | 1st        | 8/69          | 10      | —   | The book has been sent to States/Union Territories for their comments/ approval.  |                 |
| <b>HISTORY</b>   |   |            |               |         |     |   |                 |
| 44.              | Ancient India: A Textbook of History for Middle Schools (for Class VI).         | 1st<br>2nd | 11/66<br>5/69 | 5<br>10 | 6.5 | Mysore, A.P., Delhi, Maharashtra, Manipur, Tamil Nadu. Laccadives, Central Schools, A. & N. Islands, Bihar.                                       |                 |
| 45.              | Medieval India: A Textbook of History for Middle Schools (for Class VII).       | 1st        | 5/68          | 5       | 4   | A.P. Tamil Nadu, J. & K. Central and Kerala. Schools and Bihar.   |                 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
|---|---|---|---|---|---|---|---|

### COMMERCE

- |     |  |     |      |     |   |  |  |
|-----|--|-----|------|-----|---|--|--|
| 46. | Elements of Book-keeping and Accountancy: A Text-book for Classes IX-XI. | 1st | 6/69 | 2.5 | — | The book has been sent to State/Union Territories for approval/comments. |  |
|-----|--|-----|------|-----|---|--|--|

### ENGLISH LANGUAGE

- |     |  |     |      |   |   |   |
|-----|--|-----|------|---|---|---|
| 47. | English Reader (General Series) Book IV (for class XI) | 1st | 7/69 | 3 | — | } The books have recently been sent to State Governments and their replies are awaited. |
| 48. | English Reader (Special Series) Book I (for Class VI)  | 1st | 7/69 | 3 | — |   |
| 49. | English Reader (General Series) Book for Class VI.     | 1st | 8/69 | 3 | — |   |

### TEXTBOOKS (HINDI)

#### BIOLOGY

- |     |  |            |              |          |     |                  |  |
|-----|--|------------|--------------|----------|-----|------------------|--|
| 50. | Biology: Science for Middle Schools Part I (for Class VI).     | 1st<br>2nd | 8/67<br>9/68 | 10<br>10 | 16  | A.P.,<br>Gujarat | Delhi and<br>Central<br>Schools.   |
| 51. | Biology: Science for Middle Schools Part II (for Class VII).   | 1st        | 8/68         | 9        | 6.5 |                  |  |
| 52. | Biology: Science for Middle Schools Part III (for Class VIII). | 1st        | 9/69         | 10       | 2.9 |                  | Delhi.   |
| 53. | Biology: A Text-book for Higher Secondary Schools Section I.   | 1st        | 7/67         | 10       | 5.5 | A.P.,<br>U.P.    | Delhi, M.P.,<br>Central<br>Schools,<br>Haryana,<br>Punjab,<br>H.P., Goa,<br>Daman & Diu. |
| 54. | Biology: A Text-book for Higher Secondary Schools Section II.  | 1st        | 11/67        | 10       | 3.9 | A.P.,<br>U.P.    | Delhi, Central<br>Schools, H.P.,<br>Haryana,<br>Punjab.                                  |

| 1                  | 2   | 3          | 4            | 5        | 6    | 7  | 8                          |
|--------------------|---|------------|--------------|----------|------|--|----------------------------|
| <b>CHEMISTRY</b>   |   |            |              |          |      |  |                            |
| 55.                | Chemistry: Science for Middle Schools Part I (for Class VII).                 | 1st        | 9/68         | 9        | 5.5  | Gujarat, A.P., (translated into Telugu and adapted.) | Delhi and Central Schools. |
| 56.                | Chemistry: Science for Middle Schools Part II (for Class VIII).               | 1st        | 11/69        | 10       | 3.5  |  | Delhi and Central Schools. |
| <b>PHYSICS</b>     |   |            |              |          |      |  |                            |
| 57.                | Physics: Science for Middle Schools Part I (for Class VI).                    | 1st<br>2nd | 8/67<br>9/68 | 10<br>10 | 14.5 | A.P., Gujarat  | Delhi and Central Schools  |
| 58.                | Physics: Science for Middle Schools Part II (for Class VII).                  | 1st        | 8/68         | 9        | 7.5  | A.P., Gujarat  | Delhi and Central Schools. |
| 59.                | Physics: Science for Middle Schools Part III (for Class VIII).                | 1st        | 9/69         | 10       | 3    |  | -do-                       |
| <b>MATHEMATICS</b> |   |            |              |          |      |  |                            |
| 60.                | Arithmetic-Algebra: Mathematics for Middle Schools Part I (for Class VI).     | 1st<br>2nd | 8/67<br>6/69 | 10<br>10 | 11   | A.P.   | -do-                       |
| 61.                | Arithmetic-Algebra: Mathematics for Middle Schools Part II (for Class VII).   | 1st        | 8/68         | 9        | 7.5  |  | -do-                       |
| 62.                | Arithmetic-Algebra: Mathematics for Middle Schools Part III (for Class VIII). | 1st        | 8/69         | 10       | 3    |  | -do-                       |
| 63.                | Geometry: Mathematics for Middle Schools Part I (for Class VI).               | 1st<br>2nd | 7/67<br>6/69 | 10<br>10 | 11   | —  | Delhi and Central Schools. |



| 1                     | 2  | 3          | 4            | 5         | 6   | 7                                     | 8  |
|-----------------------|--|------------|--------------|-----------|-----|---------------------------------------|--|
| 64.                   | Geometry: Mathematics for Middle Schools Part II (for Class VII).        | 1st        | 7/68         | 9         | 7.5 | —                                     | Delhi and Central Schools                                  |
| 65.                   | Geometry: Mathematics for Middle Schools Part III (for Class VIII).      | 1st        | 7/69         | 10        |     |                                       | -do-   |
| <b>SOCIAL STUDIES</b> |  |            |              |           |     |                                       |  |
| 66.                   | Hamari Dilli (for Class III).  | 1st        | 3/67         | 310       | 305 | J. & K. M.P.                          | Delhi, Bihar, Central Schools.                             |
| 67.                   | Hamara Desh Bharat (for Class IV).                                       | 1st        | 4/67         | 235       | 232 | -do-                                  | -do-   |
| 68.                   | Bharat Aur Sansar (for Class V).   | 1st        | 11/68        | 25        | 12  |                                       | Central Schools  |
| 69.                   | Samajik Adhyan Part II (for Class IV).                                   | 1st        | 12/68        | 25        | 6   |                                       | Central Schools  |
| 70.                   | Samajik Adhyan Part I (for Class III).                                   | 1st        | 11/68        | 25        | 12  |                                       | -do-   |
| 71.                   | Sthaniya Shasan: A Textbook of Civics for Middle Schools (for Clsas IV). | 1st<br>2nd | 4/69<br>4/69 | 10<br>100 | 105 |                                       | Bihar, Delhi, Central Schools.                             |
| <b>GEOGRAPHY</b>      |  |            |              |           |     |                                       |  |
| 72.                   | Africa Aur Asia: A Textbook for Middle Schools (for Class VI).           | 1st        | 7/69         | 110       | 99  |                                       | Delhi, and Central Schools.                                |
| <b>HISTORY</b>        |  |            |              |           |     |                                       |  |
| 73.                   | Prachin Bharat: A Textbook for Middle Schools (for Class VI).            | 1st        | 5/69         | 5         | 5   | Mysore A.P., Maharashtra, Tamil Nadu. | Delhi, Bihar, Central Schools.                             |
| <b>HINDI</b>          |  |            |              |           |     |                                       |  |
| 74.                   | Rani Madan Amar: Hindi Primer for Beginners.                             | 1st<br>2nd | 4/66<br>6/69 | 50<br>25  | 64  | Mysore                                | Bihar, Delhi, A. & N. Islands Laccadives, Central Schools. |

| 1.  | 2   | 3                               | 4                                    | 5                          | 6   | 7   | 8  |
|-----|---|---------------------------------|--------------------------------------|----------------------------|-----|---|--|
| 75. | Chalo Pathshala<br>Chalen: Hindi Reader<br>for Class I.       | 1st                             |                                      | 500                        | 495 |   |  |
| 76. | Aao Hum Padhen:<br>Hindi Reader for<br>Class II.              | 1st<br>2nd<br>3rd               | 2/67<br>7/69                         | 441                        | 432 | Mysore,<br>A.P.   | Delhi, Bihar,<br>A. & N.<br>Islands,<br>Central<br>Schools.          |
| 77. | Aao Padhen Aur<br>Samjhen: Hindi<br>Reader for Class III.     | 1st                             | 1/68                                 | 250                        | 235 | Mysore,<br>A.P., Goa<br>Daman &<br>Diu.   | Delhi, Bihar,<br>A. & N.<br>Islands,<br>Central<br>Schools.          |
| 78. | Aao Padhen Aur<br>Seekhen: Hindi<br>Reader for Class IV.      | 1st                             | 7/68                                 | 210                        | 185 | Mysore,<br>J & K.   | Delhi, Bihar,<br>A. & N.<br>Islands,<br>Central<br>Schools.          |
| 79. | Aao Padhen Aur<br>Khojen: Hindi<br>Reader for Class V.        | 1st                             | 8/68                                 | 225                        | 217 | Kerala,<br>Mysore   | Delhi, Bihar,<br>Central<br>Schools,<br>A & N<br>Islands.            |
| 80. | Rashtra Bharati<br>Part I: Hindi Reader<br>for Class VI.      | 1st<br>2nd                      | 5/67<br>7/69                         | 210<br>20                  | 205 | Gujarat,<br>Mysore,<br>A.P., Maha-<br>rashtra,<br>Dadar and<br>Nagar<br>Haveli. | Delhi, A. &<br>N. Islands,<br>Manipur,<br>Bihar, Central<br>Schools. |
| 81. | Rashtra Bharati<br>Part II: Hindi Reader<br>for Class VII.    | 1st                             |                                      | 155                        | 145 | Mysore, Goa,<br>Daman and<br>Diu.   | Delhi, A. &<br>N. Islands,<br>Bihar,<br>Central<br>Schools.          |
| 82. | Rashtra Bharati<br>Part III : Hindi<br>Reader for Class VIII. | 1st                             |                                      | 120                        | 116 | Mysore  | Delhi, A. &<br>N. Islands,<br>Central<br>Schools, Bihar              |
| 83. | Kavya Sankalan: A<br>Textbook for Secon-<br>dary Schools.     | 1st<br>2nd<br>3rd<br>4th<br>5th | 8/64<br>8/65<br>7/67<br>4/68<br>6/69 | 25<br>40<br>25<br>15<br>40 | 143 | Punjab  | Delhi, A.P.,<br>West Bengal,<br>Central<br>Schools.                  |

| 1               | 2   | 3                               | 4                             | 5                    | 6    | 7  | 8  |
|-----------------|---|---------------------------------|-------------------------------|----------------------|------|--|--|
| 84.             | Gadya Sankalan: A Textbook for Secondary Schools.   | 1st<br>2nd<br>3rd<br>4th<br>5th | 11/64<br>8/65<br>7/67<br>4/68 | 25<br>40<br>20<br>15 | 96   | Punjab   | Delhi A.P.,<br>West<br>Bengal,<br>Central<br>Schools |
| 85.             | Ekanki Sankalan : A Textbook for Secondary Schools. | 1st<br>2nd<br>3rd<br>4th        |                               | 10<br>25<br>10<br>25 | 67   | Punjab   | Delhi and<br>Central<br>Schools.                     |
| 86.             | Kavya Ke Ang: A Textbook for Secondary Schools.     | 1st<br>2nd<br>3rd               | 7/67<br>6/68<br>4/69          | 10<br>5<br>10        | 23   | M.P. has recommended Kavya Ke Ang as reference book.           |  |
| 87.             | Jeewani Sankalan: A Textbook for Secondary Schools. | 1st                             | 8/68                          | 5                    | 1.5  |  |  |
| 88.             | Kahani Sankalan: A Textbook for Secondary Schools.  | 1st                             | 6/68<br>7/68<br>4/69          | 5<br>26<br>25        | 52   | Punjab   | Delhi and<br>Central<br>Schools.                     |
| 89.             | Kavya Sankalan: (Combined Gadya Sankalan) Edition   | 1st<br>2nd                      | 8/67<br>5/69                  | 3.5<br>2.5           | 4.5  |  | Baroda   |
| <b>SANSKRIT</b> |   |                                 |                               |                      |      |  |  |
| 90.             | Sanskritodayah: A Textbook for Secondary Schools    | 1st<br>2nd                      | 7/68<br>7/69                  | 3<br>10              | 10.5 | Kerala,<br>Tamil Nadu,<br>Maharashtra,<br>Goa, Daman<br>& Diu. | Delhi,<br>Manipur<br>A. & N. ,<br>Islands.           |

**Annexure 5**

**STATES/UNION TERRITORIES WHICH HAVE ADOPTED NCERT SCIENCE BOOKS**

| Sl. No. | Name of State/ U.T./Organisation | Nature of Adaptation  | Classes   | Year   |
|---------|----------------------------------|---|---|--|
| 1       | 2                                | 3   | 4   | 5  |
| 1.      | Central Schools Organisation     | Adopted into both the English and Hindi versions  | VI Physics<br>VI Biology<br>VI Arithmetic-Algebra<br><br>VI Geometry<br>VII Biology<br>VII Chemistry<br>VII Arithmetic-Algebra<br>VII Geometry<br><br>VII The above series in all subjects                          | 1967-68<br><br><br><br><br>1968-69<br><br><br><br>1969-70                          |
| 2.      | Delhi                            | Adopted the Hindi version with very minor modifications in consultation with DSE  | VI Physics<br>VI Biology<br><br>VII Physics<br>VII Biology<br>VII Chemistry<br>VI Arithmetic-Algebra<br>VI Geometry<br><br>VIII Physics<br>VIII Biology<br>VIII Chemistry<br>VII Arithmetic-Algebra<br>VII Geometry | 1968-69<br><br><br><br><br>1969-70<br><br><br>Under print for use during 1970-71.  |
| 3.      | Andhra Pradesh                   | Adapted the three-year middle school material in all subjects for their two-year middle stage of class VI & VII for a trial use.<br><br>DSE provided assistance to prepare the adapted draft scripts. | VI Physics<br>VI Chemistry<br>VI Biology<br>VI Arithmetic-Algebra<br>VI Geometry<br><br>VII Physics<br>VII Chemistry<br><br>VII Biology<br>VII Arithmetic-Algebra<br>VII Geometry                                   | 1969-70<br><br><br><br><br><br><br>Materials for use in 1970-71 under preparation. |

| 1  | 2  | 3   | 4  | 5   |
|----|--|---|--|---|
| 4. | Sardar Vallabhbhai Patel University, Anand, Gujarat. | Translated and adopted the NCERT texts for trial in selected schools in Kera District   | VI Physics<br>VI Biology<br><br>VII Physics<br>VII Chemistry<br>VII Biology  | 1968-69<br><br><br>1969-70  |
| 5. | Kerala   | Adopted the NCERT syllabus for primary (1-5) and middle stage (VI-VIII) and developing adapted texts using the three handbooks for primary and all texts for middle in science subjects | I-IV General Science<br>V General Science<br><br>VI Physics<br>VI Chemistry<br>VI Biology<br>VII Physics<br>VII Chemistry<br>VII Biology | Materials being finalised to use in 1970-71<br><br>Draft texts prepared and are now to be finalised in consultation with DSE to be used from 1971-72. |

Under the UNICEF/UNESCO Assisted Programme for strengthening science teaching throughout the school stage, negotiations have been held and concurrences obtained from the following States to adapt the NCERT materials for the primary and middle stages and translate them in the regional languages for try-out in about 30 selected middle schools and 50 primary schools beginning from the next academic year 1970-71. The Hindi speaking States have, however, agreed to use in toto the NCERT Hindi version for the try out and arrangements have been made to ensure the supply of these books to the Hindi speaking States in requisite numbers:

1. Tamil Nadu
2. Maharashtra
3. Gujarat
4. Orissa
5. West Bengal
6. Assam
7. Haryana
8. Punjab
9. Himachal Pradesh
10. Bihar
11. Uttar Pradesh
12. Rajasthan
13. Mysore
14. Madhya Pradesh

## Annexure 6

Letter No. F. 9-27/69-NCERT/Schools 4 dated 7th March, 1970/16 Phalgun, 1891 (S)  
From Shri T.R. Jayaraman, Joint Secretary, Ministry of Education and  
Youth Services, Government of India

### POLICY REGARDING USE OF NCERT BOOKS BY THE STATE GOVERNMENTS

Government have had under consideration the question of revising the policy with regard to the production of textbooks and other material by the NCERT and their use by the State Governments. In view of the findings of the Governing Body of the NCERT that the response from the State Governments has not been encouraging in accepting the Council's textbooks, a Sub-Committee was appointed by it with Dr. B.N. Ganguli, former Vice-Chancellor, Delhi University, as Chairman to ascertain the reasons for non-acceptance of books for adoption or adaptation by the State Governments. The Education Minister as President of the NCERT has received the report of the Sub-Committee. Government have now examined all aspects of the problem and have decided as follows:—

(i) The NCERT may, by and large, prepare in future textbook materials and make them available to all States and Union Territories. The name of the author (or authors) should not be displayed in the book to be published under this category. There may, however, be suitable acknowledgement of the assistance received from all persons connected with the preparation of the book. The State Governments and Union Territories can adapt the material for preparation of textbooks in their schools.

(ii) The NCERT may also undertake publication of outstanding books already available in the market or commission eminent writers to write textbooks. In such cases the author's name may be displayed in the book. However, the user Govt. should be informed that the publication is available for adoption only. In case any changes are proposed, prior permission of the Council should be obtained. The Council, in turn, should consult the author and obtain his concurrence.

(iii) The Council may entrust the publication of such books to some organisation instead of itself publishing them.

(iv) There should be a standard introduction to all NCERT books indicating the principles followed in the preparation of the book and the nature of adaptation, if any, normally permitted.

(v) As regards books already published, the State Governments may be informed that they can use the books without any change. In case they desire any modifications or alternations to suit their syllabi, they should get prior clearance from the Council which, in turn, may have to consult the authors in the light of the Copyright Act.

2. I shall be grateful if the above policy decision is brought into effect immediately.

## Annexure 7

Letter No. F. 9-27/69-NCERT/Schools 4 dated 7th March, 1970/16 Phalgun, 1891 (S)  
From Shri T.R. Jayaraman, Joint Secretary, Ministry of Education and Youth Services  
Government of India

### ADOPTION AND ADAPTATION OF NCERT BOOKS BY STATE GOVERNMENTS/UNION TERRITORIES

I am directed to state that in view of certain provisions of the Copyright Act and consequential legal implications, it is found that the recommendation of the National

Board of School Textbooks for permitting the State Governments to use material from National Council of Educational Research & Training books or to adapt the books as they desire without any specific prior permission from the Council cannot be implemented for the books published so far. Under the circumstances, the State Governments/Union Territories are requested to obtain necessary clearance from the NCERT regarding changes, if any, to be effected in the books brought out by it before these are either printed or published as nationalised textbooks.

2. It has also been decided that in future, as far as possible, the National Council of Educational Research and Training will produce textual material which can be used freely by State Governments in the preparation of their textbooks. The publications concerned will clearly indicate this feature.

## APPENDIX 5

### *National Science Talent Search Scheme*

The National Science Talent Search Scheme which was started as a Pilot Project in 1963 for Delhi only was expanded into an all-India scheme in 1964. The total number of awards made from 1964-1969 including the State-wise distribution is given in Table 1. A typical State-wise distribution of the number of candidates appearing and the number receiving the awards is given in Table 2.

2. The object of the scheme is to discover really talented students who are likely to make good in the field of science and afford them the required facilities for study without any financial worry. In order to make their work more effective, the selected scholars are sent to carefully chosen well-known educational institutions for study leading to the B.Sc., M.Sc. and later Ph.D. The amount of scholarship at the B.Sc. stage is Rs. 100/- p.m. plus allowances for tuition fees and books. The amount of scholarship at the M.Sc. stage is Rs. 250/- p.m. plus allowances for books and tuition. The amount of scholarship at the Ph.D. stage is Rs. 350/- p.m. plus other allowances as mentioned earlier.

3. The principal problem for the NCERT was to arrange for the setting of questions, the examination of answer scripts and the conducting of interviews in such a way that a high measure of uniformity could be realised. Cross-checks of the results of the previous examinations indicate that this ambition has been realised to a great extent. Difficulties, if any, are being continuously looked into and corrected to the extent possible. A novel feature recently injected into the scheme was the conduct of these examinations in the different regional languages since 1969. Even here, checks have shown that considerable uniformity in assessment could be realised. The conduct of examinations through regional languages has increased expenditure but has brought in persons who are good in Science but who may not have known the English language to a satisfactory standard.

4. The selected scholars are not just given scholarships and left to themselves. The educational institutions which they should join is one from a large number of selected institutions. Such institutions have been selected on the basis of reports about the staff, equipment, etc., and the attention paid to the students in their work. In addition, the National Science Talent Search scholars are looked after and the progress watched by a member of the staff of the institution. This special attention paid to the National Talent Search scholars is an important feature of the work.

5. In order that these students spend their summer vacations usefully and engage themselves in creative occupations, summer schools are being arranged for them all over the country in subjects like Physics, Chemistry, Mathematics and Biology for scholars studying in the first, second and third B.Sc. levels. There were 19 such summer schools this year. In addition, for students studying at the M.Sc. we organise training for the scholars by attaching them either to the National Laboratories or well-known research departments of universities or other educational institutions.

6. The reports of persons who are in charge of such summer schools in well-known institutions and who are themselves men of eminence have been extremely encouraging. Many of them have time and again reported on the good quality of these students and on the zest and enthusiasm displayed by them for scientific work.

7. No one anywhere in the world has been able to perfect a scheme for the discovery of talent in the early stages. The best possible method is adopted and one is continuously on the look-out for improvements. This calls for the evaluation of such a scheme and a



feed-back of the results of such evaluation to improving the scheme. This task can only now be taken on hand as the first few batches of students are now in the closing stages of their work.

8. Table 1 gives data on the National Science Talent Search Scholarships awards. Table 2 gives a state-wise distribution as number of candidates and number of persons getting awards. Both these tables are revealing. On a close scrutiny, it was found that a very large number of students from Delhi get the National Science Talent Search Scholarship. When this was examined in greater detail, it was found that the Delhi students belong to several parts of India. It appears that either through Central Government employment or business, many families from different parts of India have moved to Delhi. Consequently, Delhi is really all-India and not a mere state of Delhi. The same reasoning applies to large cities like Calcutta, Bombay, Madras, etc.

9. A preliminary evaluation indicated that the number of students getting the National Science Talent Search Scholarships from rural areas is extremely small. On a close examination, it was found that, whatever the technique adopted, the general background of a student goes a long way in his further achievements. Thus, the atmosphere in which he lives and the school which he attends do play some part in deciding his future. Since these additional advantages are not forthcoming to rural students, they cannot come up. Under the circumstances, currently the Government of India is engaged in examining an additional supplementary scheme, viz. Scholarships for Talented Rural Students. In this scheme, the idea is to pick up talented rural children, give them scholarships and put them to selected good schools. In addition, the scheme envisages a continued follow-up of the progress of such students. It is sincerely felt that such a scheme will bring forth many rural children for successfully competing and winning the National Science Talent Search Scholarships.

10. The scheme of the examination and the varied processes adopted in the selection of students is also currently under scrutiny and the necessary improvements required will be made from year to year.

11. The National Science Talent Search Scheme is restricted in its scope to spot and help students having an aptitude for scientific work. It is not a test to spot creative ability. For this, the world itself is still on the look-out for a suitable test!

Table 1

## NATIONAL SCIENCE TALENT SEARCH SCHOLARSHIPS

| Name of State/Territory                        | Number of Scholarships awarded |            |            |            |            |            |
|--|--------------------------------|------------|------------|------------|------------|------------|
|  | 1964                           | 1965       | 1966       | 1967       | 1968       | 1969       |
| 1. Andhra Pradesh                              | 3                              | 4          | 2          | 6          | 4          | 11         |
| 2. Assam                                       | 8                              | 7          | 1          | 2          | 4          | 5          |
| 3. Bihar                                       | 4                              | 13         | 3          | 15         | 7          | 14         |
| 4. Gujarat                                     | 7                              | —          | 5          | 5          | 4          | 7          |
| 5. Haryana                                     | —                              | —          | —          | 6          | —          | —          |
| 6. Jammu & Kashmir                             | —                              | —          | —          | —          | —          | —          |
| 7. Kerala                                      | —                              | 1          | 13         | 27         | 32         | 11         |
| 8. Madhya Pradesh                              | 27                             | 2          | 17         | 3          | 9          | 10         |
| 9. Maharashtra                                 | 37                             | 36         | 30         | 22         | 30         | 35         |
| 10. Madras (now Tamil Nadu)                    | 14                             | 13         | 5          | 16         | 16         | 21         |
| 11. Mysore                                     | 11                             | 23         | 16         | 14         | 30         | 5          |
| 12. Nagaland                                   | —                              | —          | —          | —          | —          | —          |
| 13. Orissa                                     | 7                              | 6          | 4          | 2          | 3          | 2          |
| 14. Punjab                                     | 39                             | 11         | 9          | 3          | 3          | 2          |
| 15. Rajasthan                                  | 4                              | 5          | 5          | 1          | 9          | 8          |
| 16. Uttar Pradesh                              | 49                             | 27         | 33         | 32         | 46         | 25         |
| 17. West Bengal                                | 36                             | 77         | 60         | 79         | 55         | 77         |
| 18. Delhi                                      | 104                            | 97         | 150        | 124        | 100        | 124        |
| 19. Himachal Pradesh                           | —                              | —          | —          | 2          | 1          | 1          |
| 20. Tripura                                    | —                              | 2          | 1          | 1          | —          | —          |
| 21. Manipur                                    | 1                              | —          | —          | 1          | 1          | —          |
| 22. Goa  | 1                              | 1          | —          | —          | —          | —          |
| 23. Pondicherry                                | 2                              | —          | —          | —          | —          | —          |
| 24. Andaman & Nicobar<br>Islands               | —                              | —          | —          | —          | —          | —          |
| 25. Chandigarh                                 | —                              | —          | —          | 7          | 1          | —          |
| 26. Laccadive, Minicoy & Amin-<br>divi Islands | —                              | —          | —          | —          | —          | —          |
| 27. N.E.F.A.                                   | —                              | —          | —          | —          | —          | —          |
| <b>TOTAL</b>                                   | <b>354</b>                     | <b>325</b> | <b>354</b> | <b>368</b> | <b>355</b> | <b>359</b> |

NOTE : The scheme was implemented in Delhi Territory only during 1963 as pilot project and ten scholarships were awarded. The scheme was implemented all over India from 1964.

**Table 2****NATIONAL SCIENCE TALENT SEARCH SCHEME 1966.***Total No. of Examinees: 4025**Total No. of Selected Awardees: 354**State-wise Distribution of Number of Candidates and Number of Persons getting the Awards*

---

| State             | No. of candidates appeared | No. of persons getting the awards |
|-------------------|----------------------------|-----------------------------------|
| Andhra Pradesh    | 204                        | 2                                 |
| Assam             | 63                         | 1                                 |
| Bihar             | 104                        | 3                                 |
| Delhi             | 572                        | 150                               |
| Gujarat           | 56                         | 5                                 |
| Jammu & Kashmir   | 11                         | 0                                 |
| Kerala            | 141                        | 13                                |
| Madras            | 248                        | 5                                 |
| Madhya Pradesh    | 652                        | 17                                |
| Maharashtra       | 298                        | 30                                |
| Mysore            | 101                        | 16                                |
| Orissa            | 23                         | 4                                 |
| Punjab            | 219                        | 9                                 |
| Rajasthan         | 208                        | 5                                 |
| Uttar Pradesh     | 845                        | 33                                |
| Union Territories | 40                         | 1                                 |
| West Bengal       | 240                        | 60                                |

---

## APPENDIX 6

### *Examination Reform Work of the National Institute of Education*

The need for examination reform was recognised by the Government of India in the Ministry of Education long before the National Council of Educational Research and Training was established. Continued attention has been paid to this problem. However, it has to be realised that school education is primarily the concern of the States. What is really necessary is to explain the work done and induce the States to take over the results of such work. This is a difficult problem to handle and it has become much more difficult with the efflux of time because many States look upon whatever is done at the Centre with suspicion and are reluctant to adopt or adapt such work. Further, many States have an innate desire to think independently for themselves.

2. Even against the background of these handicaps, it has been possible to influence the State Boards of Secondary Education and State Education Departments to a considerable extent.

3. Several Workshops were run and training given to school teachers and others in adopting new techniques in the setting of question papers, in the carrying out of tests etc. When the Review Committee reported in 1968, the impact on the States was not quite significant. However, in the year 1970, the impact has become quite significant.

4. Table I below gives a statement of the number of sample question papers prepared and the number of unit tests prepared in the different States for their Boards of Secondary Education with the assistance and collaboration of the National Institute of Education at Delhi.

Table I

| <i>State</i>                       | <i>Sample Papers</i> | <i>Unit Tests</i> | <i>Total</i> |
|------------------------------------|----------------------|-------------------|--------------|
| Rajasthan*                         | 29                   | 17                | 46           |
| Gujarat                            | 9                    | 5                 | 14           |
| Punjab, Haryana & Himachal Pradesh | 8                    | 4                 | 12           |
| Maharashtra                        | 3 (Try-out)          | —                 | 3            |
| Madhya Pradesh                     | 3                    | 15                | 18           |
| Mysore                             | 8                    | 7                 | 15           |
| Kerala                             | 6                    | 6                 | 12           |
| Assam, Nagaland, NEFA, Manipur     | 9                    | 9                 | 18           |
| Andhra Pradesh                     | 1                    | —                 | 1            |
| West Bengal                        | 5                    | —                 | 5            |
| <b>TOTAL</b>                       | <b>81</b>            | <b>63</b>         | <b>144</b>   |

\*In addition, Rajasthan has produced the following:

|  |   |
|--|---|
| Brochures on Practical Examination ... | 6 |
| Brochures on Oral Examination ...      | 1 |
| Brochures on Internal Assessment ...   | 2 |

**TOTAL ... 9**

5. It will be seen from Table 1 that a number of States have deemed it fit to adopt the techniques developed at the National Institute of Education. They have published, as can be seen from Table 1, a large number of documents. These have been circulated to the training colleges and the schools in the States. They have also been utilised in improving the question papers set at the public examinations of the corresponding Boards of Secondary Education. Within the handicaps under which one has to work, even a casual reader has reason to feel justified at the achievements.

6. In addition, it has to be mentioned that most of the States are continuously drawing upon the National Institute of Education the required resource personnel for the workshops and seminars they are organising for their teachers and examiners.

7. Overseas visitors coming to the National Institute of Education have been very much interested with the work that is being done. Consequently, requests from several countries in the form of enquiries have come to the National Institute of Education. In one case, it has completely materialized already and the work has already been completed. His Majesty's Government of Nepal approached the National Institute of Education through the Government of India for the training of 12 officers, six of whom were connected with examination reform in Nepal and the other six with curriculum and instruction. These officers have just completed their training at the National Institute of Education and gone back. The foreigners who are advising His Majesty's Government of Nepal had themselves recommended that the National Institute of Education at Delhi should be utilised for the training of their officers.

8. In view of what has been said above, to say that the examination work at the National Institute of Education has not made any impact is perhaps uncharitable.

9. It may be mentioned in passing that at a meeting of the Chairmen and Secretaries of the State Boards of Education convened by another organisation, it was resolved to recommend to the NCERT to revive the Examination Unit which was wound up after the Review Committee Report. Within limits, it has been kept going, but if better facilities had been afforded, it could have made a greater impact in the last nine months.

## APPENDIX 7

### *Studies and Surveys* ( 1969-70 )

During the year under report, further progress was made on the projects initiated earlier and a few new studies, investigations and surveys were undertaken. A brief description of research projects and educational surveys completed/undertaken during the year is given below:

#### A. STUDIES

##### 1. Test Development

###### 1.1 *Cooperative Test Development Project*

The project aims at developing a vocational interest inventory with scales for a number of occupations and four group tests of intelligence each with a parallel form and partial overlap for the ages 7+ to 9+, 9+ to 11+, 11+ to 13+ and 13+ to 16+. Tryout data for item analysis were collected and are being processed.

###### 1.2 *Development of Scholastic Aptitude Tests* (Validity Study)

The objective of this study is to collect more evidence with regard to the validity of the scholastic aptitude tests for class VIII. A manual of instructions for the tests was prepared both in English and in Hindi and sent to the press for publication. The tests were administered to about 700 students of class IX with a view to collecting fresh evidence regarding their validity.

###### 1.3 *Development of a Non-Verbal Test of Intelligence*

A non-verbal test of intelligence was developed for purposes of selection for the Government of India Merit Scholarship Scheme at the instance of the Ministry of Education and Youth Services.

###### 1.4 *Development of Differential Aptitude Tests Battery*

Sometime back, a battery of differential aptitude tests was constructed and standardized for the delta class in Madhya Pradesh by the College of Educational Psychology, Jabalpur, under a grant from the GARP Scheme. These tests are now being studied in the Council for purposes of refinement. The tests are intended to measure developed abilities of pupils studying in class VIII in Hindi speaking States and can also be used for educational and vocational guidance of pupils.

##### 2. Guidance and Counselling

###### 2.1 *Teaching of Occupations*

The aim of this project is to study and evaluate different methods of teaching occupations in classes VIII and XI. Occupational information literature in the form of job monographs—14 for class VIII school leavers and 15 for class XI school leavers—was prepared. Work was also started on literature on three job families, viz. careers in humanities, careers in science and careers in commerce.

## 2.2 *Studies in Sociometry*

A handbook on sociometry based on research investigations was prepared during the year. The handbook discusses the sociometric techniques for understanding and improving social and emotional climate of the classroom group.

## 2.3 *Stabilization of Abilities and Interests in Indian Children*

A combination of longitudinal and cross-sectional approaches was adopted to investigate the differentiating process of general ability with increasing maturity and to determine the age or grade at which different abilities, aptitudes and interests stabilized in Indian children. The report of the cross-sectional study was completed in 1967, while the report of the longitudinal study was finalized during this year.

## 2.4 *A Study of the Effect of Individual Counselling on the Achievement of Bright Underachievers*

The study aims at finding out the effect of counselling on the achievement of bright underachievers. The report of the study was drafted during the year.

## 2.5 *A Study of the Effect of Individual Counselling on Potential School Failures*

The objectives of the study are as follows:

- (a) To study the gradual improvement in the achievement of pupils in different school subjects as a result of periodical counselling sessions; and
- (b) To bring about positive changes in their study habits and attitude towards studies.

The report of the study was prepared during the year.

## 2.6 *Factors Affecting Career Choices of Adolescents*

During 1965-66, the Council collaborated with a Fulbright visiting Professor in a cross-national study of the ways in which adolescents perceive and choose from among the possibilities around them. The Indian data could be utilised for studying the vocational development of boys and girls in the conditions prevailing in smaller towns. The first such study on birth order, vocational preference and vocational expectation, was taken up during 1969. The study was completed and reported in the Indian Journal of Psychology.

## 3. **Child Development**

### 3.1 *Development of Norms Project for the Children in the Age-group 2½ to 5 Years*

This project aims at evolving norms of development in Indian children in the age-group 2½ to 5 years. The study is being made cross-sectionally and longitudinally. Analysis of cross-sectional data from all the seven cooperating centres, namely, Allahabad, Delhi, Bombay, Madras, Calcutta, Hyderabad and Ahmedabad, and longitudinal data on motor and personal-social development and background questionnaire, was completed during the year. Analysis of longitudinal data on adaptive development is in progress. Reports on language development, personal-social development, adaptive development and motor development for the Ahmedabad centre only, for the cross-sectional study, have been drafted. Report of language development for the longitudinal study is being prepared.

### 3.2 *Cooperative Research on the Development of Children in the Age-group 5½ to 11 years*

This is a new project on which preliminary work was undertaken during 1969-70. The broad objective of this project is to understand the development of children from 5½ to 11 years with a view to improving the process of education for this age range. The focus of the study would be upon investigating the relationships between environmental process variables in the home and the school and studying the effect of these on school achievement, cognitive development and social maturity. Besides,

norms for various aspects of development will also be worked out from the available data. It is intended to undertake this study in collaboration with some of the selected universities and other institutions. It has been decided that a core study should be conducted by the Council in the first instance and a number of studies overlapping partially with the core study should be carried out in collaboration with the cooperating centres to be set up in various universities.

### 3.3 *A Study of Concept Formation in Pre-School Groups Taught by Two Methods*

The study aims to find out the comparative effectiveness in concept formation and personal-social adjustment of sense training in isolation through structured experiences, and sense training in the context of other experiences which form part of the pre-school education programme. During the year under report, the data for the study were collected, weightages for the concept formation tests decided upon and pre-tests and post-tests scored. Teacher ratings were also analysed for personal-social adjustment. Scoring was completed for the non-school going population as well. A description of teaching units with comments on classroom practices for the treatment groups were also completed. Further analysis of the data was continued.

## 4. Adolescence

### 4.1 *Development of a Personality Inventory for Adolescents*

The objective of this study is to prepare a personality inventory for the adolescents. The tryout data are being analysed with respect to four variables viz. age, sex, urban-rural and internal consistency. About 50 indices covering these variables have been worked out. Item selection is being done.

### 4.2 *Development of a Scale to Measure Adolescents' Attitude towards Authority*

This study aims at developing a scale to measure adolescents' attitude towards authority. Items were scrutinized and selected for tryout. They were classified into four areas. The tryout data were collected and scored. The analysis of data is in progress.

## 5. Teacher Behaviour

### *Changing Teacher Behaviour through Feedback*

The objectives of the study are:

- 5.1 To identify some ideal classroom behaviours of the teacher for using them for four types of feedbacks, viz. teacher's self-rating and his peers' rating, pupils' rating of the teacher and outside observers' rating of the teachers; and
- 5.2 To try out and establish the most effective feedback system for changing teacher's classroom behaviour.

The pre-test and post-test data were collected in four phases during 1969-70. The sample covered 154 teachers and about 1,800 pupils of middle schools in Bikaner. The instruments for teacher's self-rating, his peers' rating, pupils' observation of the learning atmosphere and outside observers' opinion of the teacher were constructed. For observation, Flander's Classroom Interaction Model was used. The post-test data are being interpreted qualitatively and quantitatively in relation to the pre-test data.

## 6. Learning

### 6.1 *Use of Programmed Learning Techniques in Acquisition of Second Indian Languages by Educated Adults*

Under this project, two sets of programmes viz. Bengali for Hindi speaking adults and Oriya for Bengali speaking adults are being developed. Each set will consist of one script and one grammar programme. A script programme of Bengali for Hindi knowing adults was tried out on 14 individuals during the year. This programme is being



printed and will shortly be ready for field tryout. 2,000 high frequency words have also been collected for incorporation in the programme. Morphological analysis of 200 Bengali verbs of common occurrence has been done. 30 grammar frames have been written. Also, the basic structure for a programme of Oriya for Bengali speaking adults has been written and a few frames prepared for individual tryout.

#### 6.2 *Developing Methods and Materials for Teaching/Learning of Second Indian Languages in Schools*

This is a cooperative research project being carried out jointly by the NCERT and three outside centres. The objective is to develop six components of teaching methods and materials for six languages viz. Hindi for Marathi speakers, Hindi for Gujarati speakers, Hindi for Manipuri speakers, English for Hindi speakers, English for Tamil speakers and Tlamil for Hindi speakers, to be learnt as second language through the filter languages. Linguistic analysis in respect of these languages was done during the year.

#### 6.3 *Effectiveness of Individual vs. Group Pacing in the Context of Programmed Learning*

Under this project, it is proposed to study the relative effectiveness of individual pacing as against group pacing of programmed learning material. The mode of presentation in individual pacing is reading. The materials to be used are programmed units in statistics and algebra, for use with students of classes VIII and XI respectively. Survey of available materials in statistics and their tryout with a group of students in individual testing situation suggested that the teaching materials should be written afresh. This rewriting has been completed. Material on algebra has also been prepared.

#### 6.4 *Modes of Representation among School Children*

The study seeks to determine the age when the transition from the dominance of ikonic representation to symbolic representation takes place, and to find out whether such variables as sex, socio-economic status and rural-urban background affects the age of transition. The research design was finalized. The data collected from government higher secondary schools of Delhi are being tabulated.

### 7. Talent

#### *Identification of Talent in Secondary Schools in India—Longitudinal Studies*

The objectives of the project are: (a) to revise the tests of identification of talent developed during 1963-66; and (b) to study the inter-relationships between measures of talent and age, sex, social status, personality and school variables. During 1969-70, four new tests of creativity were constructed after the preliminary tryout and analysis. A battery of tests on talent, personality and creativity was administered in schools of Uttar Pradesh and Delhi. Besides, one series of longitudinal studies of talent was also completed and another series undertaken.

### 8. Educational Achievement (an International Project)

Twenty countries including India have jointly undertaken this research project of the International Association for the Evaluation of Educational Achievement. The main objective of the project is to relate input variables like organisation and structure of school and its material facilities; qualifications, experience, motivation and attitudes of teachers; and socio-economic background of students with achievement in some school subjects. During the year under report, the NCERT sent comments to the International Centre on the instruments to be used in this project. The instruments were administered to approximately 1,000 children from 22 schools and the data obtained were also sent to the International Centre. Selection of samples of primary, middle and secondary

schools in the entire Hindi speaking region was completed. Final versions of the tests were also prepared and sent to the press.

## 9. Sociological and Philosophical Foundations of Education

### 9.1 *The Concept of Equality of Opportunity in Education in India*

The problem has been studied from six angles, viz., historical, political, sociological, economic, comparative and philosophical. The first draft of the project report was completed during the year.

### 9.2 *Historical Study of Controversy over Medium of Instruction*

The main objectives of the study are:

- (a) To trace the social and cultural factors that were at the root of the problem;
- (b) To examine as to how these factors developed; and
- (c) To evaluate the measures adopted from time to time to tackle the problem.

An analysis of the problem has been made in historical perspective since the introduction of western education in India in the beginning of the 19th century.

### 9.3 *Teaching of Social Studies in Delhi Schools since Independence*

The study aims at—

- (a) Ascertaining the impact of changing socio-political conditions on the syllabi in different branches of social studies adopted in school curriculum of Delhi;
- (b) Evaluating the textbooks and reference books for these subjects;
- (c) Examining whether the teachers teaching these subjects are properly equipped and whether steps have been taken to re-orient them to the demands of new subjects; and
- (d) Enquiring whether the educational administrators are aware of the recent demand of bringing changes in this branch of study.

Some preliminary work was done on this study during the year.

## 10. Curriculum and Evaluation

### 10.1 *Linguistic Analysis and Description of Phonological Variations in Standard Hindi*

The whole Hindi speaking region has been divided into nineteen dialect areas for studying the variations in the phonology of standard Hindi. In each area, three informants representing three different strata of each speech community will be recorded. In the first phase of the study, linguistic description of the phonology of standard Hindi was prepared and finalized in a working group of linguists. In the second phase, nine Research Fellows were trained in linguistic field methods, phonetics, phonemics, dialect variations and phonological interference. Necessary tools were also developed for the study.

### 10.2 *A Study of the Syllabi in Social Sciences of Different States*

The syllabi in social sciences of different States were analysed at the primary, middle and secondary/higher secondary stages with a view to evolving a common syllabus for all the States.

### 10.3 *Analysis of Source Materials and School Syllabi in Sanskrit for Preparing Textbooks*

The syllabi in Sanskrit were collected from different States and analysed with a view to preparing a draft syllabus in the subject for middle classes. It is proposed to prepare Sanskrit textbooks based on this syllabus.

### 10.4 *A Study of the Position of Languages in School Curriculum in Different States/Union Territories*

A workshop of language experts from the States and the Union Territories was orga-

nized during the year to discuss the position of language instruction at the school stage. Reports in respect of the States of Andhra Pradesh, Gujarat, Jammu and Kashmir, Madhya Pradesh, Orissa and Rajasthan and the Union Territory of Tripura were finalized.

## 11. Teacher Education

### 11.1 *Case Studies of Elementary Teacher Education Institutions*

Three elementary teacher training institutions in Ranchi District of Bihar were visited to make an intensive study of their programmes. The report has since been drafted.

### 11.2 *A Study of Wastage and Stagnation in Elementary Teacher Education Institutions*

Some preliminary work was done in connection with this study.

### 11.3 *Promotion of Research in Colleges of Education*

To promote research in the field of education, suggestions for research projects were invited from teacher educators working in secondary teacher training institutions. The suggestions received were classified into different areas. To give the teacher educators an opportunity to discuss their projects with one another and also with the resource persons, a seminar on "Planning Research Projects" was organised for teacher educators of Northern Region at the NIE Campus in January, 1970. Eighteen participants were helped to plan their research projects and the follow-up work is going on. Six of the plan projects were approved for financial assistance under the Council's GARP Scheme.

## 12. Pre-Primary Education

### *A Study of Pre-School Education Facilities in India*

The study aims at finding out the present position with regard to different aspects of pre-school education in India as provided by various agencies. A comprehensive questionnaire was prepared for the purpose.

## 13. Primary Education

### *Preparation of Rating Scales of Selected Personality Traits of Primary School Pupils of the Age-Group 6-11*

This project which was started in March 1967 was completed in March 1970. A set of rating scales to measure the various personality traits (e.g. cleanliness, punctuality, regularity, cooperation, leadership, honesty, helpfulness, curiosity, obedience and self-confidence) of primary school children of the age-group 6-11, was prepared. Observation schedules and manual of instructions were also published in the form of a handbook for teachers.

## 14. Tribal Education

### 14.1 *An Integrated and Comparative Study of the Selected Tribal Communities Living in Contiguous Areas*

The study aims at finding out factors responsible for the relative successes and failures of different developmental and welfare schemes in the contiguous areas of Gumla sub-division of Ranchi district in Bihar and Jashpur sub-division of Raigarh district in Madhya Pradesh. The report of the study was finalized during the year.

### 14.2 *Identification of Developmental Needs of Tribal People*

The objective of the study is to identify the various developmental needs of tribal agriculturists e.g. economic, educational, social and political, with a view to providing a base material for planning and administration of welfare schemes for them. The study

was confined to the districts of Garo Hills in Assam and Santhal Parganas in Bihar. The study was completed and the report finalised.

14.3 *A Study of Educational and Economic Conditions and Employment Position of Eighteen Tribes in India*

This study aims at finding out the enrolment of tribal students in primary, middle and higher secondary schools; financial assistance given to them; their socio-economic background and employment position. The study relates to eighteen tribes of three States viz., Bihar, Madhya Pradesh and Orissa. The study was completed and the report finalised.

14.4 *A Study of the Use of Scholarships Received by Scheduled Caste and Scheduled Tribe Employees Studying in Evening Colleges of Delhi*

The objectives of the study are:

- (a) To ascertain whether the scholarships given to scheduled caste and scheduled tribe students studying in evening colleges of Delhi are being utilised by them;
- (b) To find out whether the scholarships are given to genuine students; and
- (c) To investigate whether the deserving students are deprived of the benefit of the scholarship scheme.

The first draft of the report of the study was completed in March, 1970.

14.5 *Socio-Economic and Educational Study of Sansi Tribe of Delhi*

The Sansi were previously considered as a criminal tribe. It is intended in this study to find out the reaction of the younger generation of this tribe to their parents and their parental occupation. Preliminary work relating to the project was completed during the year.

## 15. Audio-Visual Education

15.1 *Evaluation of Exhibition on "Education in India Today"*

The data pertaining to this project were tabulated and analysed. The first draft of the report is ready.

15.2 *Evaluation of Filmstrips on Science*

The necessary proformas for the study were designed and administered to the participating teachers to elicit their reaction. Based on the data collected, a brief report was prepared.

## 16. Textbook Preparation and Evaluation

16.1 *Bibliography on Textbook Research and Studies*

A bibliography on textbook research and studies in India and abroad was prepared.

16.2 *Identification of Problems of Textbooks*

The problems of textbooks in different school subjects were identified with a view to preparing evaluative criteria for evaluating textbooks.

16.3 *Preparation of Evaluative Criteria for Evaluating Textbooks in Different School Subjects*

Evaluative criteria were worked out for ten school subjects together with basic principles of textbook preparation. The procedure adopted was the study and analysis of available evidence and validation through group consultation. The material thus developed was tried out in the field.

#### 16.4 *Preparation, Production and Evaluation of Supplementary Reading Materials*

There is great dearth of suitable supplementary reading materials for school children. As a first step towards improvement in this direction, the Council undertook during the year the identification of the problems related to the preparation, production and evaluation of such materials. In order to appraise the existing situation in this regard, criteria for evaluation were developed followed by tools for the purpose, better known as Supplementary Readers Evaluation Tools (SRET). A manual of instructions was also prepared to accompany the SRET. These tools were tried out in a workshop in which the States of Punjab, Haryana, Assam, Gujarat, Rajasthan and Uttar Pradesh were represented. The tools were translated into Hindi, Assamese, Oriya, Punjabi and Gujarati.

### 17. Adult Education

#### 17.1 *Evaluation of Agricultural Television Programme in Delhi—First Phase*

The first phase of continuous Evaluation of Agricultural Television Programme in Delhi entitled "Krishi Darshan" was completed.

#### 17.2 *Evaluation of Literacy Project in Villages of Meerut District in Uttar Pradesh*

The report of the study was finalized.

#### 17.3 *A Study of the Needs, Interests and Aspirations of the Participants of Vidyapeeths*

The data were collected, processed, tabulated and analysed. The work on the drafting of the report is in progress.

#### 17.4 *A Study of the Continuing Education Programmes in Some Selected Institutions in India*

Case study approach was followed in the conduct of this study. The data from Workers' Social Education Institutes at Indore in Madhya Pradesh and at Nagpur in Maharashtra and also from the Central Board of Workers' Education from Indore and Nagpur were collected. The writing of the report is in progress.

#### 17.5 *Influence of Different Groups on Acceptance of Adult Education Programmes by Rural Women*

The work on the study is continuing.

#### 17.6 *Evaluation of Agricultural Television Programme in Delhi—Second Phase*

The work on the second phase of the project on continuous Evaluation of Agricultural Television Programme in Delhi entitled "Krishi Darshan" is continuing and is likely to be completed during 1970-71.

### 18. Commerce Education

#### 18.1 *A Study of the Status of Commerce Education in Bihar State*

A study of the status of commerce education in Bihar was undertaken during the year.

#### 18.2 *Development of a Battery of Tests in Commerce*

A battery of tests was developed during the year.

### 19. Educational Administration

#### 19.1 *Setting up of Autonomous Schools in Rajasthan*

A study relating to the setting up of autonomous schools in Rajasthan was conducted in collaboration with the Directorate of Primary and Secondary Education, Bikaner. The report of the study was finalized.

### 19.2 *Development of Working Norms of Teachers in Schools of Rajasthan State*

A study relating to the development of working norms of teachers in the schools of Rajasthan was undertaken in collaboration with the Directorate of Primary and Secondary Education, Bikaner. The report of the study is nearing completion.

## 20 **Examination Reform**

### 20.1 *A Study of Changes Introduced in Examination Systems of Different States*

During the year, a study was made of the changes introduced in the examination systems of different States and their impact on related educational practices and procedures.

### 20.2 *Analysis of Results of External Examinations Conducted by the State Boards of Secondary Education*

The annual recurrent study of the analysis of results of high/higher secondary examinations conducted by the various State Boards of Secondary Education was continued during the year.

## B. EDUCATIONAL SURVEYS

### 1 **Survey of School Textbooks in India**

This survey was undertaken to study the following aspects of textbooks at all stages of school education:

- (a) Agencies involved in producing, prescribing, approving and recommending school textbooks;
- (b) Constitution, composition and functions of these agencies;
- (c) Policies and procedures adopted in each State in respect of different categories of school textbooks with particular reference to the preparation of manuscripts, review of manuscripts, printing, pricing and distribution of textbooks;
- (d) The position of textbooks prescribed in schools during 1968-69; and
- (e) Authors of school textbooks.

A questionnaire was prepared to study these different aspects of school textbooks. On the basis of the information gathered, separate reports were prepared for each State and Union Territory. Besides, an all-India report was also drafted.

### 2. **Sample Survey of Secondary School Teachers in India**

This survey was conducted to study the various aspects concerning secondary school teachers. The aspects covered in the survey are: family background of the teacher; his qualifications, experience, pay and other service conditions; total income of his family; his family's indebtedness; his stability and mobility in the teaching profession; his personal and professional problems; his attitude towards his profession and his professional colleagues, etc. The survey covers all the States and Union Territories except A & N and L.M. & A Islands. Three questionnaires were prepared for conducting the survey. One of the questionnaires pertained to the identifying data of the school while the other two were meant for secondary school teachers. The sample included one community development block, and average town, one medium-sized town, and one city in each State whereas in the Union Territories, only the capital of the Territory was taken into consideration. While all high/higher secondary schools and intermediate colleges within the municipal limits or other administrative jurisdiction of the towns and blocks were covered, in the cities, only 5% schools within the Municipal Committee/Corporation limits were taken. The data for the survey were collected through the Extension Services Departments in all the States except Andhra Pradesh, Rajasthan and Assam where

the Council's Field Units helped in gathering the required information. By now, the data have been received from almost all the States and Union Territories and the analysis is in progress. The report of the survey is to be completed shortly.

**3. Sample Survey of Facilities available in Secondary Schools for Academic Growth of Pupils**

The work on this survey was started during the year.

**4. Survey of Facilities of Science Teaching in Elementary and Secondary Teacher Education Institutions in India**

In connection with the UNESCO-UNICEF-assisted Project, a survey of facilities available for teaching of science in elementary and secondary teacher education institutions in the country was undertaken during 1969-70. A questionnaire seeking information about trained staff in Science, laboratory facilities and storage space, etc. was prepared and sent to all the training institutions. Completed questionnaires are being received

**5. Survey of Audio-Visual Equipment of Training Colleges in India**

A survey of audio-visual equipment available in teacher training colleges in the country was conducted during the year under report. The report of the survey was finalized.

**C. EXPERIMENTAL PROJECTS**

The Council has been attempting to develop research mindedness among secondary school teachers by encouraging them to undertake small experimental projects of action research type to solve their own class room problems with the financial assistance and academic guidance from the Council. The scheme of such experimental projects has now been in existence for nearly a decade and the response has been continuously encouraging. During 1969-70, 250 projects at an estimated cost of Rs. 95,000 were approved. In view of the fact that this scheme has been in operation for nearly 10 years, a committee has been set up to evaluate its working and the report of the committee will be placed before the Programme Advisory Committee.

## APPENDIX 8

### *Grant-in-Aid Scheme (1969-70)*

1. The Council undertakes research work in collaboration with other organisations or directly encourages research work in such organisations. These include University Departments of Education, Teacher Training Colleges, approved voluntary organisations and individuals interested in educational research.

1.1 Under this grant-in-aid scheme, the Council approved several research projects. The institutions/individuals awarded grants and the titles of their projects are furnished in the Annexure.



**Annexure**

**Financial Assistance to Outside Institutions/Individuals for Research Projects in Education During 1969-70**

| Sl. No. | Institutions/Individuals  | Title of the Project  | Duration | Total outlay approved<br>(in Rupees) |
|---------|---|---|----------|--------------------------------------|
| 1.      | Shri Rama Krishna Mission Vidyalaya Teachers College, Shri Ramakrishna Mission Vidyalaya P.O., Coimbatore | Establishing Norms for Speed in Reading Tamil in Grades II to V.  | 2 years  | 21,000.00                            |
| 2.      | Department of Political Science, University of Rajasthan, Jaipur  | Management of Primary Schools under Panchayati Raj in Rajasthan   | 2 years  | 20,000.00                            |
| 3.      | Women's Training College, Dayalbagh, Agra   | Current Supervisory Practices—their Evaluation and Improvement  | 1½ years | 12,900.00                            |
| 4.      | Institute of English, 119 Shyama Prashad Mukerjee Road, Calcutta-26                                       | Teaching Bengali as a Second Language in Schools in West Bengal   | 3 years  | 44,560.00                            |
| 5.      | Post Graduate Basic T.T. College Gandhi Vidya Mandir, Sardarshahar, Rajasthan                             | Experimentation in Methods of Teaching in Training Colleges   | 1½ years | 13,250.00                            |
| 6.      | Faculty of Education, Banaras Hindu University, Varanasi  | Development of Teacher Attitude Inventory and a Study of Change in Personal Attitudes of Student Teachers | 2½ years | 23,200.00                            |
| 7.      | Department of Education, Aligarh Muslim University, Aligarh   | A Study of Difficulties of Student Teachers   | 2 years  | 2,900.00                             |
| 8.      | Department of Education, University of Jammu and Kashmir, Srinagar  | Teaching Hindi in Schools in Kashmir  | 3 years  | 20,200.00                            |
| 9.      | D.A.V. College of Education, Abohar (Punjab)  | Problems of Secondary School Teachers in the Border Areas of Punjab                                       | 1½ years | 1,500.00                             |
| 10.     | Dr. S.V. Mehta, Lecturer, Department of Adult Education, NCERT, 37 Friends Colony, New Delhi-14.          | Publication of Ph.D. Thesis "Social Conflicts in a Village Community"                                     | 1 year   | 1,000.00                             |

## APPENDIX 9

### *Curriculum Development*

A brief account of the progress made during the year 1969-70 in this important activity of curriculum development is given below:

#### **I. Science and Mathematics**

##### *1.1 Science at the Primary School Level*

On the basis of the primary science syllabus already developed by the Council in the previous year, a textbook in science for class III was prepared, edited and reviewed for printing. This book is based on the activity approach to teaching of science and emphasises the 'process' of science rather than its 'product'. The accompanying teachers guide was also developed and sent for printing. Besides, the Hindi versions of both these titles were prepared and sent to the press. These books are to be used by all the States under the UNESCO-UNICEF-assisted Pilot Project. The draft manuscript of the textbook for class IV was also prepared for further processing.

##### *1.2 Secondary Science Teaching Project (UNESCO-assisted)*

Under the Secondary Science Teaching Project (UNESCO-assisted), the Council has been engaged in developing new textbooks and related instructional materials in science and mathematics during the last few years. On the basis of the experience gained from the teaching of the textbooks at the middle school level, a new look was given to the middle school syllabi and revised syllabi in physics, chemistry, biology and mathematics were developed during the year under report. In continuation of this, the draft syllabi for the next higher stage were also finalized in these subjects. Part I textbooks in physics and biology, both English and Hindi versions, were revised and sent for publication. Five titles of experimental editions of teachers guides for the middle stage were prepared and printed. Work was started on developing textual materials for the first year of the high school stage in physics, chemistry, biology and mathematics, in cooperation with a team of UNESCO experts. The textbooks printed during the year under the UNESCO-assisted Secondary Science Teaching Project were accepted by the Central Schools Organization and Delhi Administration for use in their schools.

##### *1.3 A Comprehensive Scheme for the Improvement of Science Education (Study Group)*

Out of 20 Study Groups established in 1967, 18 (4 each in physics and mathematics and 5 each in chemistry and biology) continued to work during the year under report. The Biology Study Groups developed the draft textbook materials for the high school stage which are in the process of review and finalization. They also prepared the manuscript of six background readers of which three were sent for printing and others for review. The Groups also developed scripts for six filmstrips for the middle school stage. The Conveners Group collected the feedback from teachers on the suitability of instructional materials developed by them and the feedback was finalized for refining the materials. The Chemistry Groups started the work on the second phase at the high school stage and the textbook and the teachers guide for class VIII were completed and sent for printing. The preliminary draft of textbooks for classes IX and X were also completed. The Physics Study Groups started work on the development of three different sets of curriculum materials. The Delhi and Calcutta Groups completed the textbooks from classes V to VIII, out of which textbook for class V was printed and textbook for class

VI sent to the press. The Dehra Dun Group finalized a separate set of students work-books for classes V to VII. The Jaipur Group prepared question-answer books for classes V and VI and started work on a similar book for class VII. The Mathematics Groups were still engaged in developing the materials for the middle school stage. Geometry textbook for class V was printed and the manuscripts for classes VI and VII were sent to the press. A draft textbook for class VIII and detailed curricula for classes IX and X were prepared and analysed by the Groups. Some items of sample kit material for teaching the new mathematics curriculum were also developed. The teachers guides for geometry for classes V to VII were completed and sent to the press. Algebra textbook for class V was completed and sent for printing. Final drafts of similar textbooks for classes VI and VII were also prepared.

#### 1.4 UNESCO-UNICEF-assisted Pilot Project in Science at All Levels of School Education

In July 1969, the Steering Committee of the UNESCO-UNICEF-assisted Project on reorganizing and strengthening the teaching of science decided to launch a pilot project in all the States from the beginning of the school year 1970. The Central Team consisting of representatives of the Ministry of Education and Youth Services, NCERT, Planning Commission and UNICEF visited various places and finalized subsidiary plans of operations with each State to launch the programme. As a result of these visits, all the States and two Union Territories (Delhi and Himachal Pradesh) agreed to implement the pilot project in about 50 of their primary and 30 middle schools. Under this project, the NCERT was required to provide instructional materials in the shape of syllabi, textbooks, teachers guides and kit guides for being used by the participating States and Union Territories in their experimental schools. Accordingly, the materials developed in the Council under various curriculum projects were made available during the year to these States and Union Territories for their study, adoption/adaptation and translation into regional languages. The Hindi versions of these materials were to be supplied directly by the NCERT to all the Hindi speaking States and two Union Territories for which necessary steps were taken. Another task to be performed by the Council under this project was to organise orientation courses for key personnel from the State Institutes of Science Education and State Institutes of Education who in turn would be responsible for organising the training of experimental school teachers in their respective States. Two such orientation courses were organised—one for the primary level materials and another for the middle stage materials. The third task of the Council under this project was to manufacture sample kits of science equipment for use in experimental schools for the teaching of new science courses. Accordingly, a large scale programme of manufacture was initiated during the year so as to supply 600 middle school kits each in physics and biology and about 1,000 kits for the primary schools. The Council was also required to coordinate the supply of UNICEF equipment to various key institutions in the States. Arrangements were finalized to supply these equipments to 79 key institutions during the year under report. These supplies are still continuing.

#### 1.5 Production of Supplementary Reading Materials in Science

During the year under report, work continued on the preparation of supplementary reading materials in science. One title on 'The Discovery of Oceans' was printed and the following four titles were sent to the press:

- (1) The Insect Life
- (2) The Marine Life
- (3) Non-Flowering Plants of the Himalaya
- (4) The Story of Transport

The following titles were referred to authors for modification after review:

- (1) Rocks Unfold the Past

- (2) Bird and Bird Watching
- (3) Our Tree Neighbours
- (4) Bird Migration
- (5) The Story of Fossils
- (6) Animals Without Backbone
- (7) The Story of Oil

The following two titles were sent to the reviewers and their comments are awaited:

- (1) The Story of Glass
- (2) Meeting With the Physicist

The manuscripts of the following four titles were prepared:

- (1) The Ocean of Air
- (2) The ABC of Atom
- (3) Power from Water
- (4) Insect Plants

#### 1.6 *Production of Science Kits*

The Central Science Workshop of the Council continued to support the curriculum development programmes in science by preparing necessary prototypes of new science equipment and also by undertaking batch production of kits for use under the UNESCO-UNICEF-assisted Pilot Project. A special kit in science for primary classes containing 100 items was developed. The kit box serves as a portable laboratory-cum-display demonstration table. The kit also contains a set of hand tools to enable the classroom teacher to undertake minor repairs and also to prepare improvised equipment for use in the primary classes. A special ray box was designed for use in the middle school physics course. It is a compact unit and with the help of smoke filled inside, many of the experiments on 'light' can be demonstrated. A unique feature of this box is that it can work both on electric current and sun rays reflected by the help of mirrors placed outside the classroom. The prototype of a kit for chemistry was also developed which serves as a portable laboratory. It covers the entire middle school stage as well as part of the secondary stage work in this subject. Prototypes of equipment were developed in the areas of physics, chemistry, mathematics and biology for classes VII and VIII. Further improvements in the prototypes of equipment already developed for class VI were carried out on the basis of the feedback of tryout. In order to make kits available to the UNESCO-UNICEF-assisted Pilot Project schools, 750 kits No. I in physics and biology were produced. 250 kits in mathematics were also developed for class VI during the year under report. Besides, 300 kits in physics for class VII were also prepared. Preparations were made for undertaking a larger batch production of about 1,000 kits under each category during the coming year for supply to the various experimental schools under the UNESCO-UNICEF-assisted Pilot Project. Special facilities for plastic work were also started and new units on electroplating and optics set up.

#### 1.7 *Instructional Material Centre for Science Education*

The Instructional Material Centre for Science Education continued to serve as a clearing-house of information during the year. A brochure of various instructional materials for science teaching was prepared to meet the continued demand and queries received from science teachers, administrators and teacher educators. Assistance was provided to many schools by way of helping them to design their science laboratories and their fittings. Thirty-seven journals and pamphlets were documented at the Centre. The Centre continued to provide assistance to the All India Radio in developing its television programme in science teaching. It also organised two exhibitions of science instructional materials in the country. The Centre was visited during the year by a number of national and foreign educators.

## 2. Social Sciences

### 2.1 Social Studies

The study of social sciences has gained an added importance after independence. In the light of the importance and other objectives such as the development of NATIONAL INTEGRATION AND DEMOCRATIC CITIZENSHIP the National Council has initiated a comprehensive programme of developing new curricula, textual materials and teacher training programmes in this area. As a result of studies and developmental work, the project has covered several significant stages and has produced material for all levels of school education.

At the primary stage, an integrated approach with special emphasis on the life of the people in different parts of the country has been adopted. At the middle and secondary stages, separate subject approach has been followed. A draft syllabus in social studies for classes I to XI had already been developed in the previous years, followed by a number of textbooks and handbooks, teachers guides, etc. The progress made in this area during the year under report is as follows:

- (i) Social Studies Textbook Vol. I in Hindi for higher secondary classes was finalized and sent to the press.
- (ii) Social Studies Textbook Vol. II for higher secondary classes is under preparation.
- (iii) Social Studies Textbooks 1, 2 & 3 (English) for primary classes were sent to the press for reprint with some improvement.

### Civics

- (i) Civics Textbook in English for class VI was printed.
- (ii) Civics Textbook in Hindi for class VII was sent to the press.
- (iii) English version of Civics Textbook for class VII is being finalized.

### Geography

- (i) 'Africa and Asia' Textbooks in Geography both in English and Hindi for class VI were printed.
- (ii) 'Africa Aur Asia' a Geography textbook in Hindi for class VI was sent to the press for reprint with some modifications.
- (iii) Manuscripts of 'Australia and America' textbooks in Geography both in English and Hindi for class VII were sent to the press.
- (iv) First draft of Geography textbook in English for class VIII was prepared.
- (v) Manuscript of Regional Geography (North America, Europe and the USSR) for higher secondary classes was sent to the press.

### History

- (i) Teachers Handbook for class VI is under preparation.
- (ii) 'Modern India' a textbook for class VIII is under preparation.
- (iii) 'Medieval India' textbook for class VII (Revised edition) was printed.
- (iv) 'Medieval India', textbook for class VII (Hindi version) was printed.
- (v) 'Modern India', a textbook for class XI was sent to the press.
- (vi) A Handbook for History teachers of higher secondary schools was sent to the press.

In addition, three brochures of teaching units in Geography, Civics and Economics for higher secondary classes were prepared and also four teaching units in Civics and one in Geography for middle school stage were finalized for printing. The manuscripts of three supplementary readers, namely, Giriraj Himalaya, Lucknow Residency ka Ghera and Antariksha Mein Hamari Prithvi, meant for the middle school stage, were sent to the press.

## 2.2 *Mother Tongue*

A tentative list of graded vocabulary of more useful words in Hindi was prepared in a workshop during the year. This vocabulary is divided into four parts viz. pre-school vocabulary, primary school vocabulary, middle school vocabulary and high school vocabulary. Each part contains words that our children can normally be expected to learn at that particular stage. The tentative lists containing each part of graded vocabulary were sent to teachers, authors and parents to obtain their comments. Work regarding the preparation of revised editions of *Kavya Sankalan* and *Gadya Sankalan*—Hindi textbooks of poetry and prose selections for higher secondary classes was taken up during the year. Besides, the manuscripts of three supplementary readers, namely, *Tulsidas*, *Tukaram* and *Kalidas* were also sent to the press.

## 2.3 *Second Languages*

Work on the first textbook to teach Hindi as a second language was started during the year. Material consisting of sixteen lessons in English for a short experimental course for the students of class VII of Delhi was prepared in the Language Laboratory of the Council. Under the pilot project of teaching Bengali as a second language, fifteen lessons were prepared, revised and finalized. Language Laboratory scripts of these lessons are under preparation. The first textbook to teach Bengali as a second language is also being finalized.

## 3. Coordinated Curriculum Plan for the Primary Stage

In order to develop a coordinated curriculum plan for the primary stage, syllabi prescribed by different States and curricular materials developed by the various Departments of the NIE were studied. Work plan of the project was formulated and approved by the competent authority during the year. A comprehensive plan of total curriculum was developed for the secondary stage during the previous year. Within the broad framework of this total coordinated curriculum plan for the secondary stage, syllabus in health education was finalized during 1969-70.

## 4. Teacher Education

The present curricula of some of the pre-school teacher training institutions were analysed. Based on this analysis, a draft curriculum for pre-school teacher training institutions was developed in a workshop which was organised at the NIE Campus, New Delhi, in March, 1970. Sixteen participants attended the workshop from different parts of the country. A curriculum plan for art education and work experience was also developed for elementary teacher training institutions of the State of Punjab. A draft syllabus for teaching of social studies for elementary teacher training institutions was printed during the year under report. A comprehensive handbook in social studies for teacher educators of elementary teacher training institutions was also edited and finalized for printing. Work on Hindi version of "Teaching Reading—A Challenge" for lecturers of junior and senior teacher training colleges, was started. Elementary teacher education curriculum developed earlier and revised in February, 1969 in an All-India Workshop of elementary teacher educators was accepted in 1969-70 with some modifications by the State Governments of Punjab, Haryana, Mysore and Bihar and the Union Territory Administration of Chandigarh for being tried out in their elementary teacher training institutions. Thirty-five Principals or their representatives from elementary teacher training institutions of the above States/Union Territory attended a workshop organised at the NIE Campus, New Delhi, in March, 1970 to develop unit plans according to the revised elementary teacher education curriculum. More than 137 unit plans were developed which are now being edited. A workshop was organised by the Council at Gandhigram in January, 1970 to develop sample lessons for correspondence courses in primary teacher education. It was attended by fourteen teacher

educators. 42 lessons in 10 areas were developed in the workshop, which are now being edited.

#### **5. Development of Common Syllabus in Audio-Visual Education for B.Ed. Course**

One week workshop for the formulation of a common syllabus in Audio-Visual Education for B.Ed. course for all States was organised in December, 1969. Fourteen teacher educators participated in the workshop.

#### **6. Development of National Curriculum Standards at the Primary Stage**

Literature related to curriculum standards was studied and a list of objectives of education at the primary stage prepared on the basis of the syllabi collected from different States. These objectives were analysed with reference to the national goals spelt out in the report of the Education Commission (1964-66). Different definitions of the term 'Curriculum' were analysed with a view to formulating suitable concept of curriculum from the Indian point of view and developing criteria for finalizing the objectives of primary education. Besides, an annotated bibliography of 150 items of elementary school curriculum and a draft working paper on developing the objectives of primary education were also prepared.

#### **7. Art Education and Work-experience**

Curriculum plans in art education and work-experience were developed during the year for the State of Mysore. Besides, the units of art as well as work-experience curricula were developed and tried out in the NIE experimental school located at the Indian Institute of Technology, New Delhi.

#### **8. Adult Education**

The book in Hindi entitled "Kisan Saksharata Yojana—Pehli Pustak" was revised and enlarged for the second time on the basis of experience gained in the field and also on the basis of comments received from different quarters. 10,000 copies of this revised book were published during the year and were distributed to the District Education Officers of Lucknow district in Uttar Pradesh, Rohtak district in Haryana and Raipur district in Madhya Pradesh. A simple input card in Hindi for neo-literates for functional literacy classes in Hindi speaking region was produced as a follow-up measure for the first phase of functional literacy. This input card was field tested in Rohtak district and was modified in the light of the experience gained with neo-literate farmers.

#### **9. Teaching Aids**

The National Council has been working on a programme of promoting the use of teaching aids in education at the entire school stage during the last several years. This includes inexpensive techniques such as flannel graph kits, graphic kits, etc. which are very useful at the school stage. In addition, a considerable amount of filmstrips, charts, diagrams and other relevant materials are produced in various school subjects. During the year under report, the following kits/materials were produced:

##### *Kits*

- i. (i) Our India Study Kit
- (ii) Graphic Material Kit
- (iii) Puppetry and Creative Drama Kit

- (iv) Three Audio-Visual Kits
  - (v) Our India Study Kit based on Social Science.
2. Eight display boards for exhibiting educational materials were produced during the year.

#### *Other Materials*

- (i) 16 display stands
  - (ii) Two day-light screens
  - (iii) One chalk board
  - (iv) One magic board
  - (v) Fifty stands for puppets
  - (vi) A series of 21 flip charts on 'Biology' were completed. These were printed by the Publication Unit.
  - (vii) A 3-D Model of India for Our India Study Kit
- In addition, the following filmstrips were at various stages of production:
- (i) Jammu and Kashmir
  - (ii) Rajasthan
  - (iii) Linear Symmetry
  - (iv) Birth of Numbers
  - (v) 3-D Teaching Aids in the Plaster of Paris
  - (vi) Finding about Animals

#### **10. Language Laboratories**

One of the important events during the year in the field of curriculum development was that the Council set up a Committee on Language Laboratories in India under the Chairmanship of Professor S.V.C. Aiya, formerly of the Indian Institute of Science, Bangalore, and now Director, NCERT. The terms of reference of the Committee were as follows:

1. To make a survey of the facilities like equipment, programmes, tapes, literature, etc. available in the language laboratories in the country for learning of Indian and other languages;
2. To report on the actual use of the language laboratories in terms of number of hours, number of persons and category of persons;
3. To report on the expansion of the facilities of language laboratories, particularly for functional teaching of languages at university level or for those who are deputed abroad; and
4. To assess the production capacity in the country of the equipment required for language laboratories and to suggest expansion programme, if any.

The Committee submitted its report in August, 1969 and made recommendations of far reaching consequence which included, among others, introduction of modified language courses and their teaching through language laboratory techniques in all secondary schools in the country within a period of five years; preparation of material and training of teachers in language laboratory techniques on a priority basis; starting a full-fledged centre preferably at the National Institute of Education, Delhi, for testing the equipment required for language laboratories and for examining the feasibility and usefulness of new designs; and making provision for the establishment of a suitable phonetics laboratory.



## APPENDIX 10

### *Training Programmes*

As usual, the Council paid great attention to the pre-service and in-service education of teachers and teacher educators during 1969-70. A brief report of this work is furnished below.

#### **I. Pre-Service Education**

##### *1.1 Central Institute of Education*

During the year under report, the Central Institute of Education, Delhi, continued with its full-time courses for B.Ed. and M.Ed. degrees of the University of Delhi. The number of students admitted to these courses was 150 and 23 respectively. The correspondence course and part-time evening course leading to B.Ed. and M.Ed. degrees were also continued at the Institute to which 131 and 15 students were admitted respectively. The Institute continued with its Ph.D. programme also and two students, Sarvashri L.C. Singh and Ghulam Rasool were awarded this degree by the University of Delhi. 126 and 139 students respectively from the full-time and the correspondence B.Ed. courses appeared during the year in the university examination. The M.Ed. students appearing at the final examination numbered 20 from the full-time course and 13 from the part-time evening course.

##### *1.2 Regional Colleges of Education*

The National Council has four Regional Colleges of Education at Ajmer, Bhopal, Bhubaneswar and Mysore as its constituent units. The main purpose of establishing these colleges was to prepare teachers through four-year integrated courses after higher secondary, combining teaching in different subject areas and pedagogical training. Admission to the first year technology course was discontinued from the year 1968-69. During the year under report, four-year integrated courses were continued in Science, English and Commerce. All the four colleges also organized special one-year B.Ed. courses for graduate teachers in Commerce and Science (and Agriculture). The Regional College of Education, Ajmer, added one-year B.Ed. language course during the year for preparing special teachers in English and Hindi on the pattern of the other one-year B.Ed. programmes for graduate teachers. At Bhopal and Bhubaneswar, M.Ed. course was also offered. One-year B.Ed. course in Agriculture was under operation at Regional College of Education, Ajmer and Bhopal.

The total enrolment in the four-year courses of all the Regional Colleges of Education during the academic session 1969-70, was 1,579, which comprises 863 in Science, 116 in Technology, 363 in English and 237 in Commerce. The number of trainees admitted to the one-year courses was 526, comprising 75 in Commerce, 326 in Science, 60 in Agriculture and 65 in languages. The number of students admitted to the M.Ed. course at the Regional Colleges of Education, Bhopal and Bhubaneswar was 6 and 10 respectively.

With a view to clearing the back-log of untrained teachers in secondary/higher secondary schools in the country, the Council has been organizing summer school-cum-correspondence courses leading to a B.Ed. degree at its four Regional Colleges of Education. This course includes full-time intensive training at two summer vacations (four months) and instruction through correspondence during the ten months' period between

the two summer vacations. 1,828 teachers were enrolled in these courses at the Regional Colleges of Education during 1969-70.

## 2. In-Service Education

The work done by the Council in offering short-term and long-term in-service courses to teachers and others connected with school education during 1969-70 is as follows.

### 2.1 *Summer Institutes in Science*

To keep the secondary school teachers of Science and Mathematics abreast of the latest developments in their subject areas, the National Council has undertaken in collaboration with the University Grants Commission, a major programme of organising summer institutes. These summer institutes are generally of five to six weeks duration and are directed by the university professors with the help of resource personnel from universities/colleges. In the year 1969-70, 60 such institutes were organized, 16 in Mathematics, 14 in Physics, 18 in Chemistry and 12 in Biology. Since 1963, when the scheme started with four institutes, as many as 293 institutes have so far been organised in which 11,300 teachers participated.

### 2.2 *Summer Institutes in Social Sciences and Humanities*

During 1969-70, six summer institutes in Humanities and Social Sciences were conducted. One of these institutes was meant for teacher educators from elementary teacher training institutions, while the clientele for the other five were teacher educators from secondary training colleges and university departments of education. In one of these five institutes, the participants also included some members of staff of voluntary organisations. The subjects of the institutes were as follows:

- (1) Principles and Problems of Elementary Education
- (2) Problems of Indian Education
- (3) Research Methods and Experimental Designs
- (4) Learning, Motivation and Group Processes
- (5) Applied Linguistics and Language Teaching
- (6) Adult (Social) Education

### 2.3 *Diploma Course in Educational and Vocational Guidance*

During the year under report, a full-time post-graduate course in educational and vocational guidance of nine-months duration was offered with a view to training counsellors for State Bureaus of Guidance and schools and also for teacher educators teaching guidance in training colleges. Fifteen trainees participated in the course, one each from Haryana, Gujarat, Kerala, Rajasthan and West Bengal, two each from Jammu and Kashmir and Delhi and three each from Punjab and Uttar Pradesh.

### 2.4 *Other Short-term Training Programmes*

A number of other short duration training programmes were also organised in different fields as per particulars given below:

- (1) A two-week programme in English as a second language was organised by the Language Laboratory of the Council for trainees of Asian Institute of Educational Planning and Administration, New Delhi.
- (2) A programme to teach English as a second language to children of class IV of NIE Experimental School, New Delhi, was organised by the Council's Language Laboratory. These children were taught English vowel sounds in the Language Laboratory and the recording of their voices was made before and after the course for purposes of comparison.

- (3) A ten-day training course for improvement of Hindi teaching at the middle stage was organised in collaboration with the State Institute of Education, Bihar. Fifty participants attended the course.
- (4) A four-week training course in Audio-Visual Education was organised for the lecturers of post-graduate teacher training colleges of the Western Region. Twenty participants attended the course.
- (5) An all-India six weeks' technical training course was conducted to provide training to the projectionists and technicians from Audio-Visual Education Departments of different States, State Institutes of Education and selected teacher training colleges. The purpose of the course was to develop skills and ability among the participants in the operation, maintenance and repair of audio-visual equipment.
- (6) The fourth course in programmed learning was organised in two phases, the first phase at the State Institute of Education, Poona, and the second phase at the NIE Campus, New Delhi. The objective of the course was to introduce lecturers of training colleges and school teachers and others to the technique of programmed learning. Thirty-five participants attended the course.
- (7) An orientation programme for textbook authors and reviewers in different school subjects at the elementary stage was organised for Gujarat State during the year. It was attended by 50 textbook authors and reviewers selected by the State Department of Education. The participants were oriented to the principles of selection, organisation and presentation of content as also preparation of such teaching-learning aids as review exercises, illustrations and teachers' guides, etc.
- (8) The fifth short-term training course in evaluation was held during May-June, 1969. It was attended by thirty-nine participants from different parts of the country representing various State level educational agencies involved in the task of examination reform.
- (9) Eight State level training programmes in evaluation ranging from ten days to three weeks' duration were organised according to the specific demands and needs of individual States and Union Territories. Under these programmes, the States of Assam, Haryana, Punjab and Rajasthan and the Union Territories of Himachal Pradesh and Delhi were covered. 281 paper setters and other personnel took advantage of these programmes.
- (10) A four-day programme for the training of examiners in practical examinations in Physics, Chemistry, and Biology was organised for the Boards of Secondary Education, Assam and Delhi. The programme was attended by twenty-nine participants.
- (11) One-week orientation programme for the District Education Officers working in Kisan Saksharata Yojna under the Farmers' Education and Functional Literacy Project was organised in September, 1969. The District Education Officers from the States of Uttar Pradesh and Mysore attended the programme.
- (12) One-week training programme was organised for the Research Assistants and Investigators of the Continuous Agricultural Television Evaluation Project.

- (13) One-week programme was organised for literacy personnel at the Workers' Institute, Indore. The programme was attended by thirty teachers and supervisors of the Institute.
- (14) Fourth training course of ten days' duration was organised for the supervisors in the Kisan Saksharata Yojna at the Composite Training Centre, Lucknow. The course was attended by ten supervisors from the States of Gujarat, Mysore, West Bengal, Uttar Pradesh and Orissa.
- (15) A three-week programme was organised to train career masters for the higher secondary schools of Delhi. The programme was attended by fifty participants.
- (16) A three-week programme relating to the teaching of English was organised to train teachers of higher secondary classes in Delhi in the skills of teaching English as a foreign language. Thirty teachers participated in the programme.
- (17) Two programmes in the teaching of statistics, each of ten days' duration, were organised at the Central Institute of Education, Delhi, and the Science Centre, Jangpura, New Delhi, for the benefit of secondary school teachers of Delhi, teaching domestic science to higher secondary classes.
- (18) One-week programme in the teaching of Social Studies was organised at the instance of the Delhi Municipal Corporation for the benefit of primary school teachers.
- (19) One-week programme in the teaching of Mathematics was organised at the request of the Delhi Municipal Corporation for the benefit of teachers teaching Mathematics at the primary level.
- (20) Two-six week programmes on content, one in Biology for thirty teachers of secondary schools in Mysore State and the other in General Science for thirteen teachers of high schools in L.M. and A. Islands were organised during October-November, 1969. The former was sponsored by the Department of Public Instruction, Mysore, and the latter by the University Grants Commission.
- (21) An orientation programme to train teachers of Mysore City high schools in the teaching of school subjects through dramatisation was organised in June, 1969.
- (22) Two programmes, one for the Assistant Educational Officers of the Department of Public Instruction, Mysore, and the other for the primary teacher educators of Mysore State were conducted during May, 1969 and March, 1970 respectively. The purpose of these programmes was to train the participants so that after receiving training they could act as resource personnel for giving orientation to primary and secondary school teachers in work-experience.

## APPENDIX II

### *Extension and Field Services*

A description of the work done in providing extension and field services during 1969-70 is given in the following paragraphs:

#### 1. Extension Services Centres

As in the previous years, financial assistance through grants in-aid was provided to 140 Extension Services Centres located in selected secondary and primary training institutions throughout the country for providing extension services to the schools under their jurisdiction. Consequent upon the abolition of the Department of Field Services in June, 1969, technical guidance was provided to these Centres on a limited scale.

Incentive grants amounting to Rs. 3,000/- each were given to seven Secondary Extension Services Centres in four States during the year under report for the preparation of instructional material on programmed learning in different school subjects.

A ten-day internship course for new Coordinators of Secondary Extension Services Centres of Northern and Eastern Zones was organised in March, 1970. Thirteen Coordinators belonging to seven States participated in the course. The purpose of the course was to acquaint the participants with the functions of different constituent units of the NCERT and the role of Extension Services Departments.

A State Level Conference of all Principals of training colleges and Honorary Directors and Coordinators of Extension Services Centres of Mysore State was held at Belgaum to discuss and finalize the programmes of the Centres for the year under report.

Two Regional Conferences of Honorary Directors and Coordinators of Primary Extension Services Centres were organised during the year—one at Kalanabagram (West Bengal) and the other at Delhi. In these conferences, the work accomplished by the Centres during the preceding years was reviewed and guidelines for enriching their programmes were worked out.

A workshop of Honorary Directors and Coordinators of Primary Extension Services Centres of Southern and Western Zones was held at Bhopal in February, 1970. The problems pertaining to multiple class teaching, ungraded school system, achievement motivation and wastage and stagnation were discussed in the workshop with a view to developing suitable action programmes.

Technical guidance was provided to fourteen Primary Extension Services Centres during the year under report. Besides, quarterly reports received from the Centres were also reviewed and necessary suggestions given to them.

It has now been decided to transfer the administrative and financial control of Primary and Secondary Extension Services Centres to the respective State Governments.

#### 2. Seminar Readings

The annual National Meet of the awardees of Seminar Readings was held at the State Institute of Education, Poona, in December, 1969. Thirty teachers and principals of secondary schools were awarded national awards in this Meet.

The National Council has so far held seven All-India Competitions of Seminar Readings under which 175 teachers and principals of secondary schools have been awarded national awards. During the year, it was decided to convene the First National Conference of Awardees of all the seven All-India Competitions of Seminar Readings. In pursuance of this decision, the First National Conference was held at the NIE Campus,

New Delhi, in March, 1970. The purpose of the Conference was to provide a forum to the awardees to exchange their views and experiences.

### 3. Improving Teacher Education

#### 3.1 *Development of a Short-term Training Programme for Pre-School Teacher Education*

A workshop was organised in March, 1970 to develop a short-term training programme for pre-school teacher education. The workshop was attended by the participants from the States of Kerala, Tamil Nadu, Gujarat, Maharashtra and Uttar Pradesh and the Union Territory of Delhi.

#### 3.2 *Student Teaching and Evaluation—Secondary Level*

Four seminars on student teaching and evaluation were organised for teacher educators of secondary teacher training colleges at Chandigarh, Dehra Dun, Nagpur and Jabalpur. The States of Punjab, Haryana, Uttar Pradesh, Maharashtra, Mysore, Tamil Nadu, Madhya Pradesh and Bihar and the Union Territories of Himachal Pradesh and Chandigarh were represented in these seminars. The seminars were attended by 115 participants.

#### 3.3 *Intensive Teacher Education Programme (ITEP)—Secondary Level*

A seminar on action research and case studies was conducted at Trivandrum in April, 1969 for lecturers of secondary training colleges in Kerala State.

A conference of principals of secondary training colleges in the Punjab was held at Chandigarh in October, 1969. It was attended by twenty-nine principals or their representatives. The Conference made recommendations regarding improvement of syllabus, student teaching and evaluation techniques. Besides, internal problems of colleges including admission policies were also discussed.

#### 3.4 *Intensive Teacher Education Programme (ITEP)—Elementary Level*

A conference of principals of elementary teacher training institutions was held in Bihar in November, 1969 to plan improvement programmes under the ITEP. Twenty model teacher training schools were selected for the purpose. Thirteen orientation courses (subject-wise) were organised for teacher educators in collaboration with the State Institute of Education, Patna, during January-March, 1970.

#### 3.5 *Experimental Teaching*

Experimental teaching was taken up during the year under report by the staff of the Central Institute of Education, Delhi, to initiate the fresh B.Ed.'s to teaching. In some schools this venture led to a few more demonstration lessons by the staff members of the Institute before a group of teachers of a particular Zone in Delhi which met under the auspices of their teachers' study circle. Each demonstration lesson was followed by discussion on the practicability of 'training college method.'

### 4. Wastage and Stagnation at the Primary Stage

#### 4.1 *National Conference on Action Programmes for Reducing Educational Wastage at the Primary Stage*

A national conference on action programmes for reducing wastage and stagnation at the primary stage was organised in January, 1970. This Conference made some significant recommendations which hold a promise to reduce educational wastage in classes I-V.

#### 4.2 *Pilot Project on Ungraded School System*

A pilot project on ungraded school system was started during the year in Loni Block of Uttar Pradesh to study the impact of ungraded system on the reduction of educational

wastage. Before launching the project, the teachers and inspecting officers of cooperating schools were given orientation for two days in the concept of ungraded system and in the methods of developing teaching units, etc.

## 5. Audio-Visual Education

5.1 A four-day seminar on Audio-Visual Education for fifteen principals and teachers of Allahabad was organised in June, 1969. The programme included, among other things, screening of educational films.

5.2 One-week workshop in the preparation of film guide sheets for science teachers of higher secondary schools of Delhi was conducted in August, 1969. Twenty teachers participated in the workshop. Nineteen model film sheets on different science topics were prepared by the participants.

5.3 The second All-India Conference-cum-Workshop on Audio-Visual Education was organised in September, 1969. The Conference was attended by seventeen participants from different parts of the country. It made some significant recommendations. The report of the Conference has since been printed and circulated to the State Governments.

5.4 During the year under report, 419 films were acquired bringing the total number of films in the Central Film Library of the Council to 7,101. 51 filmstrips were also added bringing the total to 2,560. 143 new members were enrolled, so that the total membership of the Central Film Library rose to 2,867.

5.5 The following science films were got dubbed in Hindi for classroom teaching:

1. Space Science—An Introduction
2. Space Science—Comets, Meteors and Planets
3. Space Science—Planets
4. Science and Space
5. Introducing Chemistry—Types of Chemical Changes

These films were put into circulation through the Central Film Library of the Council.

5.6 Out of 1,500 Soviet filmstrip projectors received through the Trade Representation of the USSR, New Delhi, 1,475 were distributed to the educational institutions all over the country.

## 6. Programmed Learning

Two zonal seminars for creating appreciation of programmed instruction among the senior university teachers of Psychology and Education were organised during the year, one in collaboration with Sardar Patel University and the other in collaboration with Utkal University.

## 7. Preparation, Production and Evaluation of Textbooks

An all-India conference on school textbooks was convened in January, 1970 to discuss various aspects of preparation, production and evaluation of school textbooks. The conference was attended by fifty participants from different States and Union Territories.

## 8. Adult Education

### 8.1 *Kisan Saksharata Yojana*

The 'Kisan Saksharata Yojana' under the integrated project of Farmers Education and Functional Literacy was extended to 15 more districts in the country during 1969-70. The working of the project in the States of Mysore, Tamil Nadu and Uttar Pradesh was evaluated. On-the-spot observation was made in different areas by the officers of the Council of the working of functional literacy class.

## 8.2 *Shramik Vidyapeeth, Bombay*

Technical guidance to the Shramik Vidyapeeth (Polyvalent Centre), Bombay, in developing programmes was continued during the year. New courses for increasing the job efficiency of the industrial workers of Bombay were organised at the Centre. The Tata Institute of Social Sciences, Bombay, which was entrusted with the work of evaluating the working of the Shramik Vidyapeeth submitted its report to UNESCO.

## 8.3 *Seminar on Evaluation of Television*

One-day seminar was organised on July 30, 1969 at the suggestion of Agricultural ATV Policy Committee to discuss the methods of evaluation of mass-media of communication with particular reference to T.V. Thirty participants and thirteen observers attended the seminar.

## 9. **Agricultural Education**

### *Vocational Agricultural Project for Farm Youths*

A survey was conducted by the Regional College of Education, Bhubaneswar, with the help of some teachers of Agriculture of selected schools in West Bengal and Bihar, to try the idea of imparting training to village youths through the existing school facilities. The programme was meant to serve the farm youths between the age-group 14-25 having at least middle school education and owning some land.

The training was imparted mainly through home projects and a flexible need-based curriculum. Fifty farm youths underwent training.

## 10. **Teacher Education and School Improvement Programme**

### 10.1 *Science Teaching*

Two seminars were organised by the Extension Services Centre attached to the Central Institute of Education, Delhi, in collaboration with the Extension Services Centre, Jamia Millia, for improving science teaching for the benefit of science teachers of middle schools in Delhi.

### 10.2 *Strengthening of Cooperating Schools*

Under this programme, a number of publications were sent at the cooperating schools in the Eastern Region by the Regional College of Education, Bhubaneswar. The books included *New Trends in Teaching Book-keeping and Accounting*, *Research Ideas for Science Project*, *New Trends in School Practices*, Vols. 9, 10, 11, Pamphlet containing 16 titles on School Mathematics, and Pamphlet relating to Seminar Readings Programme—1969-70, etc.

### 10.3 *Improving Teaching of Science and Mathematics in Primary Schools*

A seminar on Methods of Teaching Science and Mathematics in Primary Schools was organised by the Regional College of Education, Bhubaneswar, in December, 1969. The seminar lasted for eight days. Twenty-five participants attended the seminar.

### 10.4 *Practice Teaching*

A conference of principals and lecturers from various training colleges in Rajasthan was convened by the Regional College of Education, Ajmer, to discuss the various aspects of practice teaching programmes with a view to effecting improvement in organisation, supervision and evaluation of such programmes.

### 10.5 *Teaching of Psychology and Hindi*

Lecturers from various training colleges in Rajasthan teaching Psychology and Hindi were invited to a seminar to discuss special problems pertaining to the teaching of these



subjects and to devise illustrative material for teaching and evaluation so as to make the course more functional.

#### 10.6 *In-service Education Programmes*

A three-day Conference of Honorary Directors of Extension Services Centres of the Northern Region was organised by the Regional College of Education, Ajmer, to which some coordinators of these Centres and representatives of the State Institute of Education were also invited to discuss the lacuna in in-service education programmes and to find ways and means for its improvement.

#### 10.7 *Total Improvement of School Programmes*

A conference of selected headmasters of Ajmer district was convened by the Regional College of Education, Ajmer, in June, 1969 to discuss the total improvement of school programmes. The schools also prepared and discussed their institutional plans in this conference.

#### 10.8 *Workshops in Various School Subjects for Teachers of Cooperating Schools*

The Regional College of Education, Ajmer, organised a number of workshops in various school subjects such as English, Hindi, Physics, Chemistry, Commerce and Mathematics for the benefit of teachers working in its 63 cooperating teaching schools. Both the subject content and methods of teaching were discussed in these workshops.

#### 10.9 *Workshops for Secondary School Teachers and Agricultural Supervisors of Uttar Pradesh*

Two workshops were organised by the Regional College of Education, Ajmer, for secondary school teachers and agricultural supervisors of Uttar Pradesh during the year. Special emphasis was laid in these workshops on the teaching of new developments in Agronomy, Horticulture and Fertilizers.

#### 10.10 *Improvement of Functional Use of School Library*

Work on the project entitled "Improvement of Functional Use of School Library" was also continued by the Regional College of Education, Ajmer, during the year. Eight schools participated in this project. Preparation of catalogue cards and organisation of competitions to motivate children to read more books and journals, were the highlights of the project.

#### 10.11 *Workshops on the Teaching of Mathematics*

The Regional College of Education, Ajmer, organised three workshops in the teaching of Mathematics. Some material on programmed instruction in this subject was prepared in these workshops.

#### 10.12 *Workshop for Teachers of Social Studies*

With a view to inculcate national and emotional integration among the students, a workshop for the teachers of Social Studies was organised by the Regional College of Education, Ajmer. The participants devised ways and means to help students in the development of national outlook. Several teaching aids relevant to the subject were prepared and utilised by the participants.

#### 10.13 *Seminar on Institutional Planning*

A seminar on institutional planning for the principals of schools of Jabalpur Division was conducted by the Regional College of Education, Bhopal, at Pachmarhi from 27th to 30th May, 1969. The participants were oriented in the techniques of preparing institutional plans.

10.14 *Seminar for the Method Masters of English*

A seminar for the Method Masters of English was conducted by the Regional College of Education, Bhopal, at the B.C.J. College of Education, Cambay, from 25th to 28th August, 1969. Nineteen Method Masters from the State of Gujarat participated in the seminar. The main topics for discussion were the syllabus and teaching techniques of English.

10.15 *Commerce Teachers' Workshop*

A workshop for Commerce teachers of Betul was organised by the Regional College of Education, Bhopal, in September, 1969. The participants prepared objective type tests in Book-keeping and Accountancy for higher secondary classes.

10.16 *Seminar for Method Masters of Hindi*

A seminar for Method Masters of Hindi was organised by the Regional College of Education, Bhopal, in September, 1969. Fifteen participants from different teacher training colleges attended the seminar.

10.17 *Conference of Mathematics Teachers*

A conference of mathematics teachers was organised by the Regional College of Education, Bhopal, on 7th October, 1969. The participants discussed the improvement in content and methods of teaching in the subject.

10.18 *Cooperating Schools' Conference*

A conference of teachers and principals from cooperating schools of Regional College of Education, Bhopal, was held from 14th to 16th November, 1969. The main purpose of the conference was to discuss the role of the cooperating teachers and Principals in the internship programme and ways of strengthening it.

10.19 *Conference of Summer Course Supervisors*

A conference of Summer Course Supervisors of Maharashtra State was convened at Nagpur by the Regional College of Education, Bhopal, on 3rd and 4th October, 1969. Thirty-four supervisors attended the conference. In this conference, the practical assignments to be completed by the summer course students were discussed. Besides, an effort was also made to develop a common standard of assessment of teaching by the Summer Course Supervisors.

10.20 *Seminar on Physical Education*

A three-day seminar on Physical Education was organised by the Regional College of Education, Bhopal, in February, 1970. Twenty-nine participants attended the seminar.

10.21 *Intensive School Improvement Project*

This project was started in July, 1969 in collaboration with the Government College of Education, Bhopal. Twelve schools were selected for the project—six by the Regional College of Education, Bhopal, and six by the Government College of Education, Bhopal. The main purpose of the project was to bring about qualitative improvement in selected areas in the schools. The instructional filmstrips were also prepared on topics such as Newton's Law of Motion, Leaves, Number System, Electric Cell, etc.

10.22 *Seminars for Supervisors and Cooperating Teachers of Correspondence Courses*

Local supervisors and cooperating teachers of correspondence courses at Mysore guiding and assessing practical work of the trainees were given orientation through a series of seven three-day seminars at different centres by the Regional College of Education, Mysore.

**10.23 Seminar for Lecturers of Training Colleges Affiliated to Madurai University**

A one-week seminar on improvement of teacher education for the principals and lecturers of teacher training colleges affiliated to Madurai University was convened by the Regional College of Education, Mysore, from April 4 to 11, 1970. Thirty-two participants attended the seminar.

**10.24 Workshops on Improvement of B.Ed. Examinations**

Two workshops on improvement of B.Ed. Examination for prospective paper-setters of Karnatak, Madras, Kerala and Calicut Universities were organised by the Regional College of Education, Mysore. Specimen objective based question papers were prepared in these workshops.

**10.25 Improvement of Student Teaching**

Ten three-day programmes were conducted by the Regional College of Education, Mysore, for the improvement of student teaching for teachers of cooperating schools of Manipal College of Education, National College of Education, Shimoga and the local supervisors of the summer school-cum-correspondence course.

**10.26 Programmes for Language Teachers**

Two programmes of language teaching, one for the lecturers of mother-tongue and the other on applied linguistics for the lecturers of English of teacher training colleges were conducted by the Regional College of Education, Mysore, during the year. The programme of applied linguistics was directed by Dr. S.K. Verma of the Central Institute of English, Hyderabad.

**10.27 Workshop on Physical Education**

A workshop for lecturers of Physical Education of teacher training colleges in the region was conducted by the Regional College of Education, Mysore, during March, 1970.

**10.28 A Study Circle for Science Teachers of Mysore State**

A Study Circle for Science Teachers of Mysore State was organised during the year by the Regional College of Education, Mysore. The Study Circle met on five occasions to discuss the teaching of "Modern Concepts of Atom and Molecule". An instructional material and a filmstrip on this topic was also planned to be prepared.

**10.29 Seminar on Teaching of Tamil**

Teachers of Tamil of schools in Mysore State met for the first time in May, 1969 at the Regional College of Education, Mysore, for a seminar on the teaching of Tamil.

**10.30 Professional Growth of Alumni of Regional College of Education, Mysore**

A five-day orientation programme on "New Trends in Teaching of English" for the alumni of Regional College of Education, Mysore, working in Mysore schools was held in October, 1969. Besides, a one-day conference of a large number of alumni followed by a five-day workshop on "Leadership in Education" for a selected number of alumni was also held at the Regional College during January, 1970. A number of academic and administrative problems confronted by the alumni in their schools were discussed and solutions suggested.

**11. Workshop on Experimental Projects**

The Regional College of Education, Mysore, organised a five-day workshop for resource personnel of teacher training colleges in the region. Specimen experimental and action research designs were prepared in the workshop.

## **12. General**

Besides the programmes mentioned in the foregoing paragraphs, the Council deputed during the year under report its officers on numerous occasions to work as consultants/resource persons to assist the State Departments of Education and other agencies working in the areas in which the Council is interested. The officers of the Council also participated in various national and international conferences/meetings for exchange of views and experiences.

## APPENDIX 12

### *Collaboration with the States and Union Territories (1969-70)*

Since school education is a State subject, the utility of the work of the NCERT depends on the extent to which there is a close link between the States and Union Territories and the Council. Consequently, an all-out effort was made to make the link with the States real and effective. As a result of direct and indirect contacts and personal level discussions, it was possible during the year under report, particularly during the latter half, to establish extremely close links with the States and Union Territories. A brief account of what has been done during 1969-70 is furnished in what follows.

#### **I. Improving Curriculum and Textbooks in Science Education**

Some States have independently taken up projects for improving and developing their own science curricula on the lines of the NCERT programme. The following States/ Union Territories were particularly assisted in their projects during the year:

##### ANDHRA PRADESH

Three week-long meetings were held with the concerned officers of the State Government to help them adapt the Council's textbooks in Science according to the revised State syllabi. Besides, blocks and illustrations were also provided to the State Government for printing the adapted textbooks in Telugu.

##### KERALA

Kerala has undertaken to revise completely its Science curricula at all stages of school education. The State Government was assisted through a series of meetings between the concerned officers of the Department of Education and the NCERT in developing syllabi for primary, middle and high school Science curricula and adapted version of the materials.

##### MYSORE

Resource persons from the NCERT helped the State Institute of Science Education to revise and develop its existing Science programme at the middle and high school stages.

##### DELHI

The Union Territory of Delhi was assisted in revising Part III of textbooks in Science and Mathematics for bringing the adapted versions of the NCERT textbooks in use for class VIII of Delhi schools. Besides, resource persons from the Council also helped in several orientation programmes for Science teachers of Delhi.

##### MANIPUR

One-month refresher course for Science teachers of the Union Territory of Manipur was held to orient them to the approach, content and methodology of Council's textbooks in Science for the middle school stage.

## **2. Improving Curriculum and Textbooks in Social Studies and Languages**

### **ANDHRA PRADESH**

The Council helped the State Government in finalising a programme for the preparation of textbooks in Social Studies for classes I to V.

### **BIHAR**

The Government of Bihar has already adopted Social Studies textbooks for primary classes, prepared by the Council. The State Government was helped to adapt the Council's textbooks in this subject for the middle school stage.

During the year under report, the Council also provided necessary guidance to the Bihar State Textbook Publishing Corporation Ltd. in the adaptation of its Hindi textbooks for higher secondary classes.

### **HARYANA**

The Government of Haryana has decided to adopt Social Studies textbooks produced by the Council for classes I to IV. The State Government was helped in getting prepared the textbook in Social Studies for class III entitled 'Hamara Haryana'.

### **MYSORE**

The Council rendered necessary help and guidance to the State Government in the improvement of its syllabus in Hindi.

### **RAJASTHAN**

Guidance was provided to the State Government in the preparation of its Social Studies textbooks, Hindi Primer and two other textbooks in Hindi.

### **ANDAMAN AND NICOBAR ISLANDS**

The Union Territory of A & N Islands has adopted Council's textbooks in Social Studies for classes I to V. During the year under report, steps were taken to prepare 'Hamara Andaman and Nicobar Dweep' for which the Council provided necessary assistance and guidance.

Complete picture of adoption/adaptation of Council's textbooks by the various State Governments/Union Territory Administrations for 1969-70, is given in Annexure 4 of Appendix 4.

## **3. Revision of School Curricula in all Subjects of Social Sciences**

### **MYSORE**

Fifty key-persons from the State of Mysore were given orientation by the officers of the Council in collaboration with the State Department of Education in the task of revising their school curricula in all subjects related to Social Sciences from classes I to VII.

## **4. Revision of Pre-Service Teacher Training Syllabus in Social Studies**

### **DELHI**

The Delhi Administration was rendered necessary help in the revision of pre-service teacher training syllabus in Social Studies.

## **5. Improving Teaching of English**

### **HIMACHAL PRADESH**

40 English lessons were copied in the Language Laboratory of the Council and sent to Government Basic Training School, Solan (Himachal Pradesh), for use by teachers teaching English in primary classes.

### **DELHI**

The State Institute of Education, Delhi, was helped in organising a training course for selected teachers of English who were to act as resource persons in orientation programmes for the improvement of teaching English in Delhi schools.

## **6. Orientation in Audio-Visual Education**

### **RAJASTHAN**

Necessary guidance was given by the officers of the Council to the Audio-Visual Education Unit, Ajmer, in organising a six-week training course in A.V. Education for forty teachers of Rajasthan.

## **7. Guidance in State Level Textbook Preparation Programme**

### **RAJASTHAN**

Technical guidance was provided to the Nationalised Board of Textbooks, Rajasthan, in the preparation of textbooks in mother-tongue (Hindi) for classes I to VII. The textbooks for classes I and II were finalized during the year.

## **8. Examination Reform Programmes**

### **ASSAM**

Resource persons in the subjects of Physics, Chemistry, Biology and Mathematics were trained by the officers of the Council and comprehensive programme for the orientation of teachers through these resource persons developed. Besides, examiners for practical examination in Physics, Chemistry and Biology were trained.

### **RAJASTHAN**

Resource persons in languages and science subjects were given orientation by the officers of the Council. Technical guidance was provided by the Council in preparing special brochures of sample question papers in Home Science and Commerce. These brochures were published for circulation in the schools.

### **WEST BENGAL**

The Inspectorate of Anglo-Indian Schools of West Bengal has launched a programme of improvement of school evaluation in collaboration with the NCERT. The programme is envisaged to cover the common as well as school-wise internal evaluation including written, oral and practical examinations. It has been planned to operate the programme through several school groups which are developing their own examinations on the improved lines. Technical guidance was provided in this regard by the officers of the Council to the schools through the above Inspectorate.

## DELHI

Examiners of the Central Board of Secondary Education for practical examinations were trained in the subjects of Physics, Chemistry and Biology.

The progress made in different States/Union Territories during 1969-70 in the implementation of examination reform programmes may be seen in Appendix '6'.



## APPENDIX 13

### *Grants to Voluntary Organisations*

The scheme of assistance to voluntary organisations engaged in educational work was started by the Union Ministry of Education during the First Five Year Plan with a view to financially assisting them for undertaking the following types of activities:

- (i) Projects of an experimental or educationally significant nature;
- (ii) Laboratories, libraries and audio-visual equipment;
- (iii) Production of educational literature;
- (iv) Educational and vocational guidance;
- (v) Training and research programmes in social welfare work;
- (vi) Refresher courses, seminars, workshops and conferences etc.; and
- (vii) Educational exhibitions.

The details in respect of financial assistance provided to the various voluntary educational organisations during 1969-70 are given hereunder:

| <i>Name of Voluntary Organisation</i>  | <i>Amount<br/>(in Rs.)</i> |
|--|----------------------------|
| 1. All India Federation of Educational Association, New Delhi                      | 2,000                      |
| 2. National Parent-Teacher Association of India, New Delhi                         | 5,000                      |
| 3. Calcutta University   | 5,000                      |
| 4. Association of Mathematics Teachers of India (Madras)                           | 3,000                      |
| 5. Association of Geography Teachers of India (Madras)                             | 4,000                      |
| 6. Indian Association for Programmed Learning                                      | 6,500                      |
| 7. Science for Children, Calcutta  | 6,000                      |
| 8. Association for the Promotion of Science Education                              | 3,000                      |
| 9. Secretary, All India Science Teachers Association                               | 6,400                      |
| 10. Indian Association for Pre-School Education                                    | 2,250                      |
| 11. Indian Association of Teacher Educators, Regional College of Education, Bhopal | 4,200                      |
| 12. President, Bangiya Vijnan Parishad, Calcutta                                   | 2,000                      |
| 13. Indian Association for Extra-Curricular Scientific Activities, Calcutta        | 2,500                      |
| 14. Mysore State Education Federation, Bangalore                                   | 5,000                      |
| 15. Indian Association of Teacher Educators, Regional College of Education, Bhopal | 2,500                      |
| Total amount sanctioned in 1969-70   | 59,350                     |
| Provisions for 1969-70   | 60,000                     |

## APPENDIX 14

### *Boards, Study or Working Groups of the Ministry of Education and Youth Services 1969-70*

The Council is actively associated with the work of the Ministry of Education and Youth Services and what follows gives an account of the participation of the Council in all such work during the year.

#### **1. National Board of School Textbooks**

Both the Central and the State Governments are seized of the problem of placing appropriate instructional materials in the hands of the learner. The National Integration Council in its meeting held at Srinagar in June, 1968 attached great importance to textbooks for the purpose of inculcating among students a feeling of national unity. Accordingly, the Government of India through its Resolution dated December 31, 1968 established a National Board of School Textbooks to coordinate and guide the activities of the national and State organisations for production and improvement of textbooks. The NCERT was called upon to provide "necessary academic services to the Board in bringing the problems for discussion as well as helping the national and State level organisations engaged in scrutiny, approval and production of textbooks to implement the decisions taken". Consequently, a new Department of Textbooks was created in the Council in June, 1969 under the reorganised set up of the Council. The Department of Textbooks is, among other things, required to serve as the academic secretariat of the National Board of School Textbooks and its Head is the Ex-officio Joint Secretary of the Board.

The National Board of School Textbooks held its first meeting in April, 1969. As many as 26 Resolutions of vital significance were passed in the meeting. Of these, 11 were directly entrusted to the NCERT for follow-up.

#### **2. National Board of Adult Education**

The Government Resolutions on National Policy on Education (1968) stressed the need for liquidation of mass illiteracy. The National Seminar on Liquidation of Illiteracy held at Poona in 1965 recommended the setting up of a National Board of Adult Education to promote, guide and evaluate the programmes of adult education. The Education Commission (1964-66) also endorsed this recommendation. The Government of India accepted the proposal and set up the National Board of Adult Education *vide* its Resolution dated December 5, 1969. The Resolution, among other things, says that the Department of Adult Education of the NCERT shall provide the necessary secretariat and academic services to the Board. Prof. S.V.C. Aiyar, Director, NCERT is one of the members of the Board.

The Department of Adult Education prepared agenda papers for the first meeting of the Board held in May, 1970.

#### **3. National Seminars on Population Education**

The officers of the Council participated in two national seminars on population education—one organised by the Central Health Education Bureau of the Ministry of Health and Family Planning and the other by the Council for Social Development.

#### **4. Study Group on Pilot Projects**

The Ministry of Education and Youth Services set up a Study Group to formulate pilot projects in different areas of education. The officers of the Council collaborated with the Ministry in formulating pilot projects in the areas of girls' education, part-time and continuation education, institutional planning, wastage and stagnation, education of backward classes and scheduled tribes, vocationalization of education, school complex and functional literacy. Draft designs of the pilot projects prepared by the officers in these areas were submitted to the Union Ministry of Education and Youth Services.

#### **5. Working Group on Assistance to Voluntary Organisations**

The Ministry of Education set up a Working Group to examine the scheme of assistance to voluntary organisations in the field of adult education. The Group was serviced by the Department of Adult Education of the Council. The Group completed and submitted its report to the Ministry of Education and Youth Services during the year.

#### **6. Study Group on Supervision and Inspection**

The Conference of Directors of Public Instruction/Directors of Education in its meeting held at Bangalore from May 28-30, 1969 recommended *inter alia* the setting up of a Study Group to undertake a study of the existing position and to suggest measures to improve inspection and supervision in the country. The Study Group was constituted accordingly in July, 1969 by the Ministry of Education and Youth Services under the auspices of the NCERT. The report of the Group was finalized, printed and released in November, 1969

#### **7. Study Group on Shift System**

The Ministry of Education set up a Study Group to study the working of shift system in Kerala in order to find out the extent to which it could be conducted in other States. The Group was serviced by the officers of the Council and made an on-the-spot study of the shift system in Kerala. The Group prepared a report which was circulated to all its members.

## APPENDIX 15

### *Miscellaneous*

The Council continued to receive assistance through the UNESCO, UNICEF, the Government of the U.S.S.R. and the Government of the United Kingdom. Many members of the Council's staff went overseas as members of delegations or to attend conferences or for studies over extended periods of time. Several experts from overseas visited the Council and its institutions. All such activities are described in what follows.

#### 1. Equipment Received from International Agencies

1.1 Under the UNESCO-UNICEF-assisted Secondary Science Teaching Project, delivery of 17 sets of science equipment comprising about 460 items each, started. On completion of the supplies, these sets are to be despatched to the various State Institutes of Science Education. Arrangements were also completed to receive 79 sets of equipment for the State Institutes of Science Education, State Institutes of Education, selected under training colleges under the UNICEF-assisted Pilot Projects.

1.2 UNESCO continued to provide equipment during the year 1969-70 under UNESCO-UNDP-assisted Project of Central Adult Education Organisation and the Polyvalent Centres.

1.3 1,500 Soviet filmstrip projectors were received during the year through the Trade Representation of the USSR. A number of science films were also received as a gift from the U.K. under the Colombo Aid Funds.

#### 2. Deputation of Council's Officers Abroad for Participation in International Conferences and Fellowship Programmes for Advanced Training

2.1 Dr. Shib K. Mitra, Joint Director, visited Australia for one month with effect from 7th April, 1969 as a Visiting Fellow under the Commonwealth Scholarship and Fellowship Plan, at the invitation of the Department of Education and Science of the Government of Australia.

2.2 Dr. R.H. Dave, Head, Department of Textbooks, was deputed to Colombo to act as a Consultant in a Sub-Regional Seminar on "Educational Development and its Effect on School Buildings" organised by the Asian Regional Institute for School Building Research, Ceylon (sponsored by UNESCO) from 4-10-1969 to 11-10-1969.

Dr. Dave was also deputed from 28-8-1969 to 13-9-1969 to Tokyo to attend the Third Educational Research Workshop on Problems Related to School Curriculum in Asia, organised by the National Institute for Educational Research, Japan, with the assistance of UNESCO.

2.3 Dr. M.C. Pant, Head, Department of Science Education was deputed during the year to Paris to participate in a Conference organised by UNESCO on the Teaching of Integrated Science.

2.4 Under the UNESCO-UNICEF Secondary Science Teaching Project, the following officers of the Department of Science Education were deputed for training abroad for the period noted against each:

|                  |  |
|------------------|--|
| Dr. M.C. Pant    | Two months in the USSR and three weeks in the U.K. |
| Shri R.C. Sharma | Six months in the USSR                             |
| Dr. B.D. Atreya  | -do-   |

Shri S.P. Sharma  
Shri S. Murali Krishna  
Shri Mohinder Singh

Six months in the USSR  
-do-  
Three months in the USSR

2.5 Shri Rajendra Prasad, Reader, Department of Science Education, visited Paris and London under the UNESCO sponsored programme from 16-9-1969 to 19-9-1969 and 29-9-1969 to 4-10-1969 respectively. He was also deputed to the USA from 6-10-1969 to 6-1-1970 under USAID Programme to get first-hand knowledge of the work of U.S. National Science Foundation. Shri Rajendra Prasad also visited Tokyo and Bangkok from 8-1-1970 to 16-1-1970 under the National Council for Science Education sponsored programmes.

2.6 Shri R.C. Saxena, Reader in the Department of Science Education was deputed to Tokyo from 26-8-1969 to 12-9-1969 to attend the Third Educational Research Workshop on Problems Related to School Education in Asia, organised by the National Institute of Educational Research, UNESCO, Japan, with the assistance of UNESCO.

2.7 Shri S.L. Ahluwalia, Head, Department of Teaching Aids, visited Manila from 4-5-1969 to 15-5-1969 to attend a Seminar on "Educational Television".

2.8 Shri C.K. Vajpai, Instructor in Audio-Visual Education of the Department of Teaching Aids who was deputed to Lagos on 5-2-1968 under a UNESCO Programme, as a specialist in the Development of Teaching Aids at the National Technical Teacher Training College, Lagos (Nigeria), was allowed to continue on deputation during the year 1969-70.

2.9 Dr. C.H.K. Misra, Reader in the Department of Educational Psychology and Foundations of Education was deputed from 12-2-1970 to 14-3-1970 to participate in the UNESCO sponsored seminar on Programmed Instruction in collaboration with Japanese National Commission in Tokyo and Osaka.

2.10 Mrs. S. Shukla, Reader in the Department of Educational Psychology and Foundations of Education, visited Sweden from 10-11-1969 to 15-11-1969 to attend the National Technical Officers briefing meeting in connection with the International Educational Achievement Project of the International Association for the Evaluation of Educational Achievement.

2.11 Shri S.L. Gajwani, Lecturer in the Department of Educational Psychology and Foundations of Education, continued on deputation as Director of Education under the Government of Sikkim during 1969-70.

2.12 Shri M.R. Chilana, Field Assistant in the Department of Pre-Primary and Primary Education was deputed to Philippines for one year from 20-2-1970 for conducting research at the Asian Institute for Teacher Educators, Quezon City, Philippines, under a UNESCO Fellowship Programme.

2.13 Shri U.N. Jha, Assistant Business Manager in the Publication Unit of the Council, was deputed to Pakistan from 27-10-1969 to 29-11-1969 to attend training course in book distribution technique organised by UNESCO at Karachi.

2.14 Dr. R.N. Mehrotra, Reader in the Central Institute of Education, Delhi, was sent on deputation to the U.S.A. from 31-8-1969 to 4-3-1970 under Indo-U.S. Technical Cooperation Programme for the year 1969.

2.15 Dr. (Mrs.) B. Raju, Reader in the Central Institute of Education, Delhi, continued on deputation to UNESCO as Senior Lecturer in Educational Planning and Administration at University College, Nairobi (Kenya).

2.16 Shri H.A. Gade, Lecturer in the Central Institute of Education, Delhi, visited Italy from 18-11-1969 to 21-11-1969 to attend a meeting of experts on Art Education in Venice. He also visited Rumania and Hungary from 19-3-1970 to 10-5-1970 with his exhibition under the Cultural Exchange Programme.

2.17 Dr. (Mrs.) S. Mulay, Reader in the Department of Adult Education was deputed to U.K. from 4-8-1969 to 23-8-1969 to participate in a Workshop on National Evaluation of Functional Literacy Project sponsored by UNESCO in collaboration with the Institute of Adult Education, University of London.

She also visited Jamaica from 28-2-1970 to 1-4-1970 as a UNESCO expert to prepare a research design on Literacy Programme Evaluation and the relative adoption of Radio and T.V. as media for imparting literacy.

2.18 Shri M.K. Gupta, Lecturer in Chemistry at the Regional College of Education, Ajmer, was deputed to the U.S.S.R. under UNESCO Programme of Improvement of Science Teaching.

2.19 Sarvashri P.S. Rao and P.R. Rao, Lecturers in Science at the Regional College of Education, Mysore, were deputed to the U.S.S.R. for advanced training under UNESCO Programme of Improvement of Science Teaching.

2.20 Miss A. Chari, Principal, Regional College of Education, Mysore, was a Member of the Indian Delegation sent by the Government of India to the International Colloquy on Teacher Education held at the University of Guestrow under the German Democratic Republic in August, 1969.

### **3. Council's Officers Who Went Abroad on Leave and/or Special Assignments**

3.1 Shri D.N. Gaiind, Reader in the Department of Social Sciences and Humanities was granted leave from 1-9-1969 to 30-6-1970 with permission to work as a Curriculum Specialist with the New Hampshire Education Department, U.S.A.

3.2 Shri Arjun Dev, Lecturer in the Department of Social Sciences and Humanities was granted special leave from 30-9-69 to 30-6-70 for undergoing advanced studies in the preparation of textbooks at the Institute of Education, London, under a Commonwealth Teacher Training Bursary offered by the Government of U.K.

3.3 Mrs. Latika Rajpal, Lecturer in the Central Institute of Education, Delhi, was granted extraordinary leave to go to the U.S.A. from 31-8-68 to 14-7-70 to take up a teaching assignment.

3.4 Shri S.S. Sharma, Lecturer in the Central Institute of Education, Delhi was transferred on foreign service to UNESCO for the period starting from 5-2-1970 to 31-7-1971 to take up an assignment as a Specialist in Teacher Training in Afghanistan under the Special Fund Component of the U.N. Development Programme.

3.5 Dr. (Miss) K. Bose, Lecturer in the Central Institute of Education, Delhi, went on special leave to U.K. from 4-10-68 to 14-7-69 for higher studies at the Institute of Education (Exteter), U.K., under a Commonwealth Teacher Training Bursary.

3.6 Shri B.B. Agarwala, Lecturer in the Central Institute of Education, Delhi, was granted special leave and permission to accept a fellowship from 15-10-68 to 9-7-69 to the Institute of Education, London, under the Imperial Relation Trust, U.K.

3.7 Shri Y.P. Khanna, Lecturer in the Department of Teaching Aids went to France on extraordinary leave on 4-10-69 under a French Government Scholarship for training in cinema.

3.8 Shri Tilak Raj Bawa, Reader in the Department of Teaching Aids was granted extraordinary leave to pursue higher studies in USA from 16-3-68 to 16-9-70.

3.9 Shri B.K. Das, Reader in English at the Regional College of Education, Bhubaneswar, proceeded to Lancashire University, U.K., on leave for one year for post-graduate studies in Linguistics.

### **4. Deputation of Council's Officers for Participation in International Conferenes held in New Delhi**

4.1 Shri S. Doraiswami, Reader in the Department of Science Education was deputed to attend the Tenth General Assembly Meeting of the International Union for Conservation of Nature and Natural Resources held at New Delhi in November, 1969.

4.2 Dr. T.A. Koshy, Head in the Department of Adult Education, Dr. (Mrs.) S. Mulay, Reader in the same Department and Sarvashri H.N. Pandit and C.L. Sapra, Readers in the Departments of Educational Psychology and Foundations of Education and Social Sciences and Humanities respectively, were deputed to participate in the

meetings of the Eleventh World Conference organised by the Society for International Development at New Delhi from November 14-17, 1969.

#### **5. Foreign Experts on Deputation to the Council**

5.1 Under the UNESCO-UNICEF-assisted Secondary Science Teaching Project, seven experts and the Chief Technical Adviser continued to assist the project throughout the year. Dr. Y.I. Nuunov, Chemistry Expert left in July, 1969 on completion of his term. Dr. M.F. Kalpokov, Expert in Methods of Teaching Physics and Shri G. Leterneau, Audio-Visual Expert joined the project team during the year. Besides, the UNESCO-UNICEF Expert, Shri A.W. Torrie, also continued to work in the primary science programme.

5.2 During the year under report, the Council received the services of an expert, Shri K. Milinkovic up to December, 1969 for helping in the development of the project of Central Adult Education Organisation and Polyvalent Centres under the UNESCO-UNDP Assistance Programme.

5.3 Under the Colombo Plan, Miss M. Pullan visited India as a short-term Consultant in Biology and worked with the NCERT Biology Study Groups.

## APPENDIX 16

### *Publications*

#### RESEARCH STUDIES AND MONOGRAPHS

1. The Role of the Secondary Teacher: A Sociological Survey
2. Research in Classroom—A Handbook for Teachers
3. Child Development—A Symposium
4. Second National Survey of Secondary Teachers in India
5. Judicial Review and Education: A Study in Trends
6. The Achievement Motive in High School Boys
7. Second All-India Educational Survey
8. Position of History in India
9. Papers in the Sociology of Education in India
10. A Study of Integrated Syllabi
11. Educational Investigations in Indian Universities (1939-61)
12. Educational Wastage and Stagnation in India
13. A Comparison of the Attainment of Children of the CIE Basic School with those of other School Children in Delhi
14. An Achievement Test in Indian History
15. A Study of Some Factors Related to Scholastic Achievement
16. Relationship between the Measure of Success of Teachers as Students under Training and as Teachers in Schools
17. A Study of Written Vocabulary of Sixth Class Children in Delhi Schools
18. Children's Reactions to Frustration
19. A Study of Some Private Unrecognised Schools in Delhi
20. The Concept of Personality in the Educational Thought of Mahatma Gandhi
21. Measurement of Cost Productivity and Efficiency of Education
22. Facets of Indian Education
23. Education and National Development—Report of the Education Commission (1964-66) (Reprint) Vol I: General Problems
24. Education and National Development: Report of the Education Commission (1964-66) (Reprint) Vol. 2: School Education
25. Curriculum and Teaching of Mathematics in Secondary Schools
26. Sociology of Teaching Profession in India
27. Summaries of M.Ed. Reports (1952-65)

#### TEXTBOOKS

##### Primary Stage

###### *English*

28. Let's Learn English\* \*\*:Book I (Special Series)

###### *Hindi*

29. Hindi Primer: Rani Madan Amar\*
30. Hindi Reader I : Chalo Pathshala Chalen\*
31. Hindi Reader II: Aao Hum Padhen\*
32. Hindi Reader III: Aao Padhen Aur Samjhen\*
33. Hindi Reader IV: Aao Padhen Aur Seekhen\*
34. Hindi Reader V: Aao Padhen Aur Khojen\*



*Mathematics*

35. Insight into Mathematics—Book I (English and Hindi)\* \*\*  
*Science*  
36. Science is Doing (English & Hindi)\*\*  
*Social Studies*  
37. Our Country India—Part I (English & Hindi)  
38. Our Country India—Part II (English & Hindi)  
39. India and the World—Part III (English & Hindi)

**Middle Stage**

*English*

40. English Reader—Book I (Special Series)\* \*\*  
41. English Reader—Book I (General Series)\* \*\*

*Hindi*

42. Rashtra Bharati—Part I  
43. Rashtra Bharati—Part 2  
44. Rashtra Bharati—Part 3

*Science*

45. Biology : Science for Middle Schools—Part I (English & Hindi)  
46. Biology : Science for Middle Schools—Part II (English & Hindi)  
47. Biology : Science for Middle Schools—Part III (English & Hindi)  
48. Chemistry : Science for Middle Schools—Part I (English & Hindi)  
49. Chemistry : Science for Middle Schools—Part II (English & Hindi)  
50. Physics : Science for Middle Schools—Part I (English & Hindi)  
51. Physics : Science for Middle Schools—Part II (English & Hindi)  
52. Physics : Science for Middle Schools—Part III (English & Hindi)

*Mathematics*

53. Arithmetic-Algebra : Mathematics for Middle Schools—Part I (English & Hindi)  
54. Arithmetic-Algebra : Mathematics for Middle Schools—Part II (English & Hindi)  
55. Arithmetic-Algebra : Mathematics for Middle Schools—Part III (English & Hindi)  
56. Geometry : Mathematics for Middle Schools—Part I (English & Hindi)  
57. Geometry : Mathematics for Middle Schools—Part II (English & Hindi)  
58. Geometry : Mathematics for Middle Schools—Part III (English & Hindi)

*Civics*

59. Local Government : A Textbook of Civics for Middle Schools (English & Hindi)

*Geography*

60. Africa and Asia : A Geography Textbook for Middle Schools (English & Hindi)

*History*

61. Ancient India : A Textbook of History for Middle Schools (English & Hindi)  
62. Medieval India : A Textbook of History for Middle Schools (English & Hindi)

**Secondary Stage**

*English*

63. English Reader—Book IV (Special Series)\*\*  
64. English Reader—Book IV (General Series)\*\*

*Hindi*

65. Kavya Sankalan

66. Gadya Sankalan
67. Ekanki Sankalan
68. Kavya Ke Ang
69. Kahani Sankalan
70. Jeevani Sankalan
71. Hindi Sahitya Ka Itihas
72. Sanskritodayah  
*Science*
73. Physics : A Textbook for Secondary Schools—Part I
74. Chemistry : A Textbook for Secondary Schools—Part I
75. Biology : A Textbook for Higher Secondary Schools (Seven Sections)
76. General Science for You—A Textbook for Secondary Schools—Vol. I  
*Mathematics*
77. Algebra : A Textbook for Secondary Schools—Part I (English & Hindi)
78. Algebra : A Textbook for Secondary Schools—Part II
79. A First Course in Modern Algebra—A Textbook for Secondary Schools  
*Technology*
80. Engineering Drawing : A Textbook for Technical Schools
81. Elements of Mechanical Engineering : A Textbook for Technical Schools
82. Workshop Practice : A Textbook for Technical Schools—Part I
83. Workshop Practice : A Textbook for Technical Schools—Part II
84. Reading Blue Prints and Sketching : An Elementary Textbook for Technical and Vocational Schools  
*Geography*
85. Practical Geography : A Textbook for Secondary Schools
86. Economic Geography : A Textbook for Secondary Schools
87. Physical Geography : A Textbook for Secondary Schools  
*Commerce*
88. Elements of Book-keeping and Accountancy
89. Economic and Commercial Geography of India  
*Social Studies*
90. Social Studies: A Textbook for Higher Secondary Schools—Vol. I

#### SUPPLEMENTARY READERS

91. Akbar
92. Raja Rammohun Roy
93. Lal Bahadur Shastri
94. India—The Land and The People
95. Bahuroopee Gandhi
96. The Story of My Life
97. Freedom Movement in India
98. The Finger on the Lute (The Story of Mahakavi Subramania Bharati)
99. The Romance of Teaching (Hindi and Urdu)
100. The Romance of Banking
101. The Romance of Theatre
102. Gautama Buddha
103. Jesus Christ
104. Zarathushtra
105. Moses
106. Sankaracharya
107. Sir Syed Ahmed Khan
108. Raja Ram Mohan Roy
109. Weapons : Old and New
110. The Universe
111. The Life and Work of Meghnad Saha

112. The Life of Insects
113. The Discovery of Oceans
114. Non-Flowering Plants of the Himalaya
115. The Faces of Courage
116. Legends of India (English & Hindi)
117. The School and the Community—A Book of Short Stories
118. Drama in Schools
119. Ganit Manoranjan
120. Vishwakosh, Kya, Kyon Aur Kaise
121. Bharat Ke Prachin Shastrastra Aur Yudhkala

#### OTHER PUBLICATIONS

122. Film Appreciation—The Art of Five Directors
123. Film as an Art and Film Appreciation
124. Effective Use of Display Material in Schools
125. Simple Visual-Aids for Social Education
126. Preparing Graphic Aids
127. Audio-Visual Handbook
128. Elementary Doll Making
129. Basic Education and the New Social Order
130. Elementary Education in British India during the latter Nineteenth Century
131. Basic Education Abstracts
132. First Step in the Socialization of Children in the C.I.E. Nursery School.
133. The Concept of Evaluation in Education
134. Qualitative Analysis of Children's Explanations of Physical Casualty
135. A Survey of School Guidance Services
136. Guidance Movement in India
137. Handbook for Counsellors
138. The First Mental Measurement Handbook of India
139. Personality Pattern of Delinquents
140. Social Studies—A Draft Syllabus for Classes I to XI
141. Our Plan and Plan Projects—Social Studies Source Book for Basic School Teachers
142. Guide Booklet for Nursery School Teachers
143. Social Studies—41 Charts and Teachers Manual for Teaching
144. General Science—A Handbook of Activities
145. Reading Readiness Kit
146. General Science for Primary Schools—A Teacher's Handbook of Activities—Vol. I
147. General Science for Primary Schools—A Teacher's Handbook of Activities—Vol. II
148. General Science for Primary Schools—A Teacher's Handbook of Activities—Vol. III
149. First Year Book of Education—A Review of Education in India (1947-61) Part I (Revised edition) National Review and Central Programmes
150. First Year Book : A Review of Education in India (1947-61) Part II (Revised edition) State Programmes
151. Second Year Book of Education—Elementary Education
152. Third Year Book of Education—Educational Research

#### JOURNALS

1. *School Science* : A Quarterly Journal for Students and Teachers of Secondary Schools.
2. *Indian Educational Review*: A Half-yearly Journal of Educational Research.
3. *N.I.E. Journal* : A Bi-monthly Educational Journal.

---

\*Workbook for the textbook is also available

\*\*Teacher's Guide for the textbook is also available.

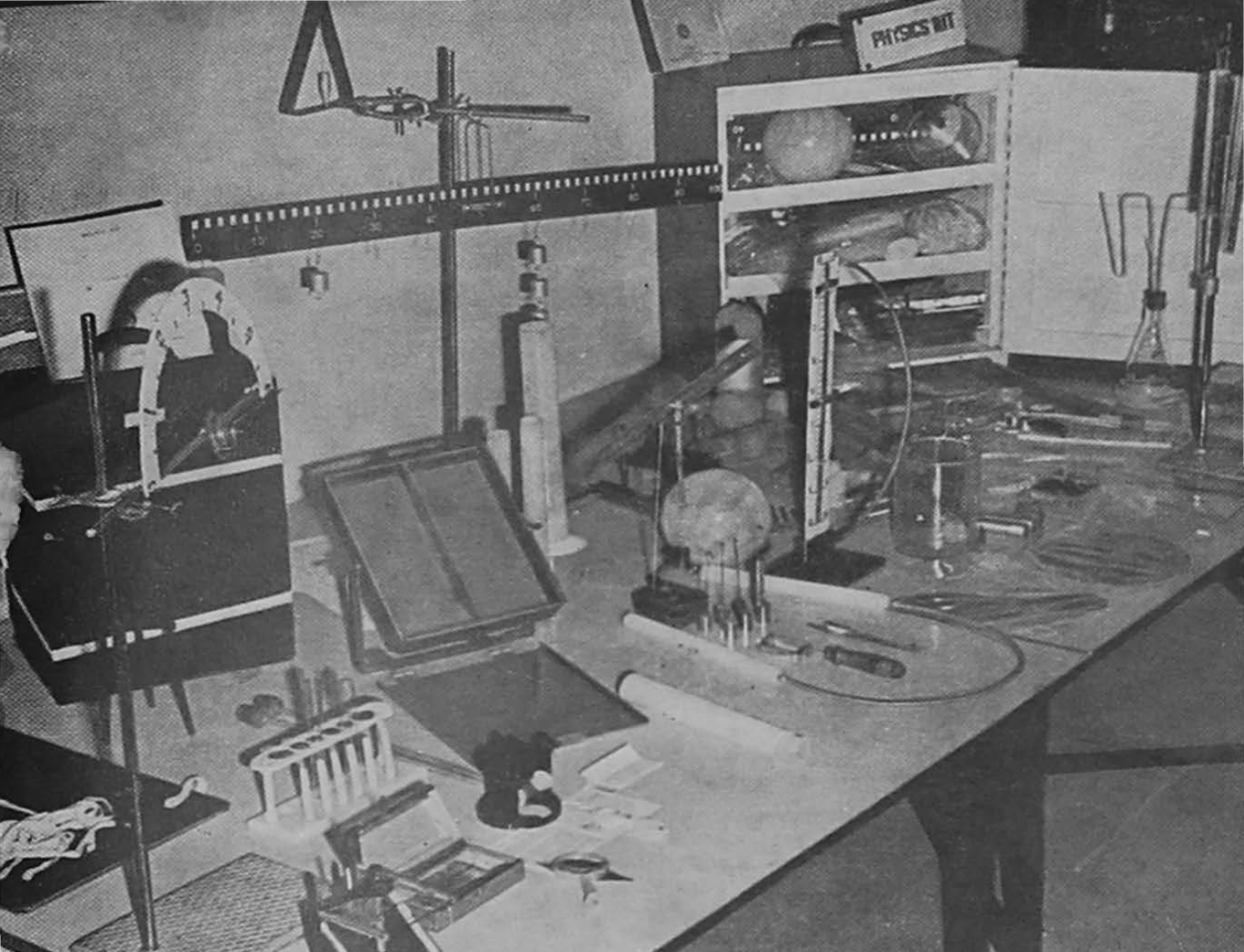
**APPENDIX 17**

*Statement of Accounts of National Council of Educational Research and Training  
for the Year 1969-70*

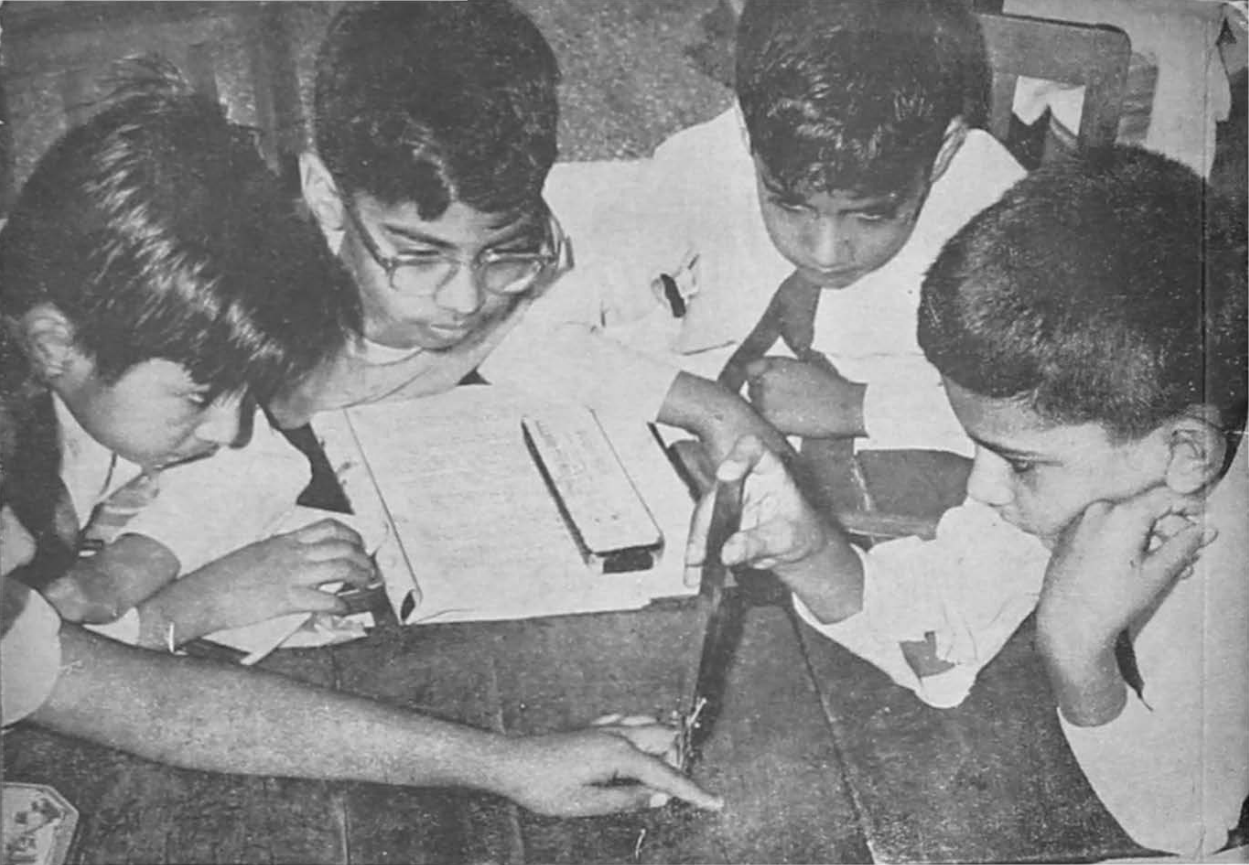
**Consolidated Receipts and Payments Account**

511

| RECEIPTS                                    |                | PAYMENTS  |                |
|---|----------------|---|----------------|
| Opening Balance                             | 23,01,484.00   | <b>NON-PLAN</b>                                       |                |
| <i>Grants-in-aid from Government</i>        |                | (a) Expenditure on pay and allowances, Programme etc. | 1,86,00,987.00 |
| (a) General Grant of NCERT                  | 3,15,90,061.00 | (b) Loans and Advances                                | 2,00,000.00    |
| (b) Special grant for Tribal Education Unit | 40,792.00      |   |                |
|   |                | <b>PLAN</b>   | 1,44,04,464.00 |
| Contribution from other sources             | 10,825.00      | Unspent balance refunded to Government for 1968-69    | 18,39,406.00   |
| Sale of Publication etc.                    | 16,87,286.00   |   |                |
| Provident Funds                             | 8,96,503.00    | Tribal Education Unit                                 | 66,443.00      |
| Other Miscellaneous receipts and recoveries | 15,49,601.00   | Deposits and Advances                                 | 11,46,784.00   |
|   |                | Closing Balance                                       | 18,18,468.00   |
|   |                |   |                |
| <b>TOTAL</b>                                | 3,80,76,552.00 | <b>TOTAL</b>  | 3,80,76,552.00 |



*Physics Kit for Middle Schools*



*Mysteries of Magnetism*