

# **ANNUAL REPORT**

## **1970-71**



**National Council of Educational Research and Training**  
**NEW DELHI-16**

*June 1972*

*Asadha, 1894*

P.U.I.T

© National Council of Educational Research and Training, 1972

PUBLISHED AT THE PUBLICATION UNIT BY SHRI S.A. ABIDIN, SECRETARY,  
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING, N.I.E  
CAMPUS, SRI AUROBINDO MARG, NEW DELHI 16 AND PRINTED AT  
THE CAXTON PRESS, JHANDEWALAN ESTATE, NEW DELHI 55

# CONTENTS

<b>INTRODUCTION</b>	<b>Page</b> 3
<b>ANNUAL REPORT (1970-71)</b>	11

## *APPENDICES*

1 Membership of the Council and its Committees	29
2 Fourth Five-Year Plan Allocations	38
3 Receipts and Payments Account for 1970-71	48
4 Curriculum Development	49
5 Crash Programme for Evaluation of School Textbooks	57
6 National Science Talent Search Scheme	62
7 National Integration Project	65
8 International Education Year (1970) Programmes Undertaken by the Council	67
9 Grants to Professional Educational Organisations	69
10 Research Studies, Investigations and Surveys	70
11 Grants-in-Aid for Approved Research Projects (GARP)	82
12 Training Programmes	84
13 Extension and Field Services	93
14 Collaboration with the States and Union Territories	102
15 Collaboration with the Ministry of Education and Youth Services	107
16 International Collaboration	110
17 Publications	115

# *Introduction*

## INTRODUCTION

1. The National Council of Educational Research and Training, popularly known as the N.C.E.R.T., was established on 1st September, 1961 as an autonomous organisation under the Societies Registration Act, 1860. 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 (1956), 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 providing facilities for the improvement of school education. After taking over these organisations, the Council reorganised its work so that it could function in an effective manner.

2. The Council is financed entirely by the Government of India. 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; 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 organising training and extension programmes and for carrying out and promoting research activities. It maintains a close liaison with all the State Governments through its network of offices of Field Advisers.

The Council has its headquarters in New Delhi.

5. At New 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 and the NIE Library, Documentation and Information Services. 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 post-graduate 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 post-graduate wings and run both in-service and pre-service programmes for the teachers of their respective regions. 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 regions and also the State Departments of Education.

8. The Council has a Publication Unit which looks after the printing of educational literature produced by the various constituent units of the Council. The literature falls into the following major categories :

- (a) Textbooks and teachers' manuals
- (b) Supplementary reading materials
- (c) Yearbooks
- (d) Research monographs
- (e) Instructional material
- (f) Brochures and pamphlets
- (g) Educational journals
- (h) Reprints of foreign books, etc.

9. The General Body of the Council has the Union Minister of 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 has requested the NCERT 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 Union Ministry of Education and Youth Services and the Ministry of Finance, two teachers, three members of the Faculty 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 decisions on academic matters, the Council has a Programme Advisory Committee which scrutinizes and initiates the academic programmes 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, while the Establishment Committee renders assistance on establishment matters. 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 its 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 different parts of 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.

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 Secondary 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 pilot project have been translated into several regional languages. The Council conducts an all-India competition to select talented students 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 un-interrupted 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 to effect 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 outstanding researches in the field of education. In addition, it provides financial assistance to professional educational organisations operating at national/regional levels for the improvements of school education. In order to assist promising young research scholars, 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 and teacher educators. Further, in order to make its work meaningful, the Council provides financial assistance and academic guidance to 95 extension services centres spread throughout the country in the field of secondary education and 45 such centres in the field of primary education. In addition, the Council organises 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, the Council 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 it has attracted special attention.

18. The above description gives a broad picture of the way in which the work of the Council is organised and administered as also the various activities in which the Council is engaged.

*Annual Report*  
*1970-71*

# ANNUAL REPORT 1970-71

During the year under report, reorganisation of the Council started last year, was carried further. Research, training and extension continued to engage the attention of the Council to the same extent as in previous years. A brief account of these activities is presented in the succeeding paragraphs.

## 1. Reorganisation of the Council

1.01 *Amendments to the Memorandum of Association* : As required by the Government Resolution of 4th August, 1969, certain amendments to the Memorandum of Association of the Council were carried out and got approved by the Executive Committee and General Body of the Council. The amendments are now to be confirmed at the Second Special Meeting of the General Body.

1.02 *Framing Regulations of the Council* : In exercise of the powers conferred vide Rule 40 of the Rules of the NCERT, the Executive Committee, with the previous approval of the Government of India, framed Regulations for the administration and management of the affairs of the Council. These Regulations are expected to be promulgated in the beginning of the next year with the approval of the President of the Council.

1.03 *National Institute of Education* : At its Headquarters in New Delhi, the Council runs the National Institute of Education (NIE). The National Institute of Education has 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

In compliance with the Government Resolution on the recommendations of the Review Committee (1968), the Department of Adult Education was transferred to the Government of India, Ministry of Education and Youth Services on 1st March, 1971. The Department has now been named as

the Directorate of Adult Education and functions as a subordinate office of the Ministry of Education and Youth Services.

The question of having a Department of Measurement and Evaluation in the Council is still under consideration.

**1.04 Regional Colleges of Education :** The four-year science course and the four-year language course in the Regional Colleges of Education were continued during the year under report. Revised courses in these subjects are being formulated which will be introduced shortly. The question of limiting award of stipends to 50% of regular students admitted to pre-service courses of Regional Colleges has been examined and the decision in this regard is to be implemented from the academic session 1971-72. The question of stopping award of stipends to the students of summer school-cum-correspondence courses is also under consideration and any decision taken in this behalf will be enforced from the academic session 1971-72.

**1.05 Central Institute of Education :** The transfer of the control of the Central Institute of Education, Delhi to the University of Delhi could not be effected during the year under report. Efforts are, however, being made to effect the transfer as early as possible.

**1.06 Enquiry Committee, NCERT :** In exercise of the powers vested in Article 6 of the Memorandum of Association of the NCERT, the Government of India appointed Shri Batuk Singh, Controller General of Defence Accounts (Rtd.) and formerly member of the U.P.S.C. to review the present recruitment policies and procedures of the Council and to recommend suitable guidelines for recruitment policies for the future.

## **2. Administration and Finances**

**2.01 Officers of the Council :** Upto 17th March, 1971, Prof. V.K.R.V. Rao, the former Union Minister for Education and Youth Services was the President of the Council. From 18th March, 1971, Shri Siddhartha Shankar Ray, the Union Minister for Education and Social Welfare became President of the Council. Prof. J. K. Shukla, who was concurrently holding charge of officiating Joint Director and Head of the Department of Teacher Education ceased to officiate as Joint Director with effect from 28th May, 1970. He was subsequently transferred to the Regional College of Education, Bhopal, as its Principal in July, 1970. Miss A. Chari, former Principal of Regional College of Education, Mysore, took over as the Commissioner of Kendriya Vidyalaya Sangathan in November, 1970. Shri P. D. Sharma, Principal, Regional College of Education, Ajmer was transferred to the Regional College of Education, Bhubaneswar vice Dr. R.C. Das, who took over as Principal of Regional College of Education, Ajmer in June, 1970.

**2.02 Committees of the Council :** The annual meeting of the General

Body of the Council was held at New Delhi on 4th January, 1971, when it considered the Annual Report for 1969-70 and the Audit Report for 1968-69. In addition, the scheme for the improvement of science education at the primary level, formulated by the Department of Science Education was also considered and it was suggested that pilot projects on these lines initiated by the State Governments should be given due encouragement.

The Executive Committee of the Council met four times during the year i.e. on 20th April, 1970, 25th November 1970, 9th December, 1970 and 25th January, 1971. During these meetings, the Committee approved the Annual Report of the Council for 1969-70, the statement of accounts of the Council for the years 1966-67, 1967-68 and 1968-69 and the Audit Reports thereon, Budget and Revised Estimate for 1970-71 and Budget Estimates for 1971-72 and the Fourth Five-Year Plan (1969-74). In addition, the Committee approved amendments to Articles 3 and 6 in the Memorandum of Association of the Council in accordance with the Government of India's Resolution of 4th August, 1969 and also adopted draft Regulations of the Council. It approved the modified project for organisation of liaison work with the States by converting the Field Units of the Council into Offices of Field Advisers. It recommended immediate abolition of Textbook Panels and Editorial Boards of the Council. In pursuance of the recommendations of the Language Laboratory Committee, it recommended the starting of two pilot projects, viz. setting up of a Unit in the NCERT for the teaching of languages through language laboratories and creation of technical facilities for fabrication and testing of language laboratory equipment in the Council. The Committee agreed in principle to the setting up of an organisation for carrying out the functions of the National Board of School Education. It recommended the continuation of the 4-year courses in science and languages in the Regional Colleges of Education during 1970-71 and appointed a Sub-Committee to examine in detail the desirability of continuing the 4-year course in languages. The Sub-Committee submitted its report during the year. The Executive Committee accepted the recommendations of the Sub-Committee regarding the continuation of the 4-year course in English during 1971-72, introduction of a slightly modified and improved course in English with effect from July 1972 and the introduction of 4-year courses in other languages. It constituted a Publication Advisory Committee, a Science Advisory Committee, and an Establishment Committee during the year under report. It also reconstituted the Finance Committee of the Council. The Committee recommended starting of programme for non-student youth in the Regional Colleges of Education. The Committee agreed to the transfer of responsibility for running Summer Institutes for science teachers from the University Grants Commission to the N.C.E.R.T. beginning from the summer in 1972.

The Finance Committee of the Council met on 24th July, 30th September, 23rd November, 1970 and 15th March, 1971. In its first two meetings,

the Committee exclusively devoted itself to the consideration of statement of accounts of the Council for the years 1966-67, 1967-68 and 1968-69 and the Audit Reports thereon and Revised Estimates for 1970-71 and Budget Estimates for 1971-72. In the other two meetings, the Committee made recommendations to the Executive Committee on a number of problems, like fixation of rates for occupation of Guest House and Hostels in the NIE Campus; price fixation of films and filmstrips produced by the Department of Teaching Aids, pricing formula for textbooks, general publications and journals published by the NCERT; appointment of wholesalers for the sale of NCERT textbooks in the country and setting up of a Sales Depot of NCERT publications in Connaught Circus or Asaf Ali Road, New Delhi.

The Programme Advisory Committee of the Council met only once during the year i.e. on 21st August, 1970. The Committee considered the programme of different Departments of the NIE, Regional Colleges of Education and the Central Institute of Education for 1971-72. It also made recommendations to the Executive Committee on a number of issues, like the establishment of a separate Evaluation and Curriculum Unit ; publication of an Encyclopaedia of Educational Research in India ; introduction of a four-year course in languages; starting of programmes for non-student youth; evaluation of national integration camps ; special provision for out-of-school science activities for school children; reviving the course in Research Methodology; evaluation of the National Science Talent Search Scheme; etc. Besides, the Committee recommended the setting up of the following Sub-Committees :

- (i) Sub-Committee to evolve rules and procedures for dealing with applications of research proposals under G.A.R.P. Scheme of the Council.
- (ii) Sub-Committee to evolve rules and procedures for dealing with applications for financial assistance to professional educational organisations.
- (iii) Sub-Committee to consider research proposals of all the Departments of NIE, Regional Colleges of Education and the Central Institute of Education.
- (iv) Sub-Committee to consider seminar and training programmes of all the Departments of NIE, Regional Colleges of Education and the Central Institute of Education.
- (v) Sub-Committee on 4-year science course.
- (vi) Sub-Committee on 4-year technology course.

Membership of the Council and its various Committees may be seen in Appendix 1.

*2.03 The Fourth Five-Year Plan :* The Fourth Five-Year Plan of the Council was formulated in accordance with the guidelines provided by the Government of India. Essentially, the plan provides for the continuation,

in appropriately modified forms, of some of the on-going programmes and the taking up of some new projects of significance for implementation of the policies of the Central Government in the field of school education. The originally approved Fourth Plan ceiling for the Council was reduced from Rs. 8.30 crores to Rs. 7.50 crores as a result of the reduction in the plan outlays for the National Science Talent Search Scheme, Cooperative Research and Development Programme, programmes of the Central Institute of Education, programmes of the Publication Unit, activities of the NCERT Headquarters and programmes of National Council for Science Education. The details, in respect of year-wise phasing of the revised plan outlays of various programmes of the constituent units of the Council are furnished in Appendix 2.

2.04 *Budget Provision for 1970-71:* The Council has a small income of about Rs. 30 lakhs from the sale of publications, etc. But for this, the entire expenditure is met out of Government grants. The annual expenditure on different activities of the Council now stands at about Rs. 3.70 crores. A summary of the Budget and Revised Estimates and the Actuals for 1970-71 in respect of Non-Plan and Plan provisions is given below:

(Rs. in lakhs)			
	Budget Estimates	Revised Estimates	Actuals
Non-Plan	214.28	214.28	209.58
Plan	177.50	156.22	162.58
Total	391.78	370.50	372.16

The detailed statement showing Consolidated Receipts and Payments Account for the year 1970-71 is furnished in Appendix 3.

### 3. Development of Campuses

During the year under report, considerable attention was paid to the development of Campuses 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 the Council's employees, administrative and financial approval was accorded for the construction of 32 Type I, 16 Type IV and 8 Type V quarters at New Delhi Campus. Besides, the following works also made progress at New Delhi Campus:

- (a) Construction of 32 Type II and 32 Type III quarters;
- (b) Construction of Director's Bungalow;
- (c) Construction of 40,000 gallons capacity underground tank for storage of municipal water; and
- (d) Construction of compound wall of the Campus.

To supply drinking water to New Delhi Campus, the Delhi Municipal Corporation completed the work regarding laying of water pipes.

As regards development of campuses in the Regional Colleges of Education, major works have already been completed. Emphasis in these colleges is being laid on the construction of staff quarters to meet the demand for residential accommodation.

#### 4. NIE Library

The NIE has a fairly big library at New Delhi Campus of the Council. The library mainly caters to the needs of the research staff of various Departments/Units of the NIE. The clientele also includes persons working in other research and academic organisations. Besides, the library provides inter-library loan facilities to many local institutions.

At present, the library has more than one lakh books and a collection of bound volumes of over four thousand journals. During the year 1970-71, following additions were made to the library holdings:

(a) <i>Books</i>	
Purchased	2,020
Gratis	615
Total	<u>2,635</u>
(b) <i>Journals</i>	
By subscription	276
Gratis/Exchange	74
Total	<u>350</u>

The newspaper clipping service started by the library during 1969-70 was continued during the year under report. Important news items relating to education in general and NCERT in particular are being maintained in subject order.

In pursuance of the recommendations of the Review Committee and the Government Resolution thereon, the scope of the NIE Library was widened during 1969-70 to include documentation and information services. The plan drawn up for the development of documentation and information services by the library staff could not be implemented during 1970-71.

The library is faced with many problems such as lack of accommodation, suitable furniture and equipment, etc. A Committee was set up by the Director, NCERT, under the Chairmanship of Shri B.S. Kesavan, Director, National Library, Calcutta, to deal with these problems. The Committee is likely to submit its report soon.

#### 5. Regional Colleges of Education

During 1970-71, the Regional Colleges of Education continued to run



4-year courses in Science, English, Commerce and Technology for students who were already on their rolls. New admissions to the 4-year Technology course in all the four Regional Colleges and to the 4-year Commerce course in the two Regional Colleges at Bhopal and Mysore were, however, stopped during 1969-70 and 1970-71 respectively. The Summer School-cum-Correspondence Course leading to the B.Ed. degree was continued in all the four colleges to clear the backlog of untrained teachers. In addition, one-year B.Ed. course in a limited number of subjects was run in these 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 and all the students offering this course were provided scholarships. Extensive in-service training programmes were undertaken by all the four regional colleges which also actively participated in the running of Summer Institutes for secondary school teachers and primary teacher educators.

## **6. Curriculum Development**

Curriculum Development is one of the main functions of the Council. Considerable attention was paid to this activity in all the Departments of the National Institute of Education during 1970-71. To the extent possible, this work was encouraged in the Regional Colleges of Education also. Curriculum Development includes the development of textbooks, teachers' handbooks, curriculum guides, supplementary reading material, teaching aids, laboratory and library equipment, etc. The work done by the Council in this area during the year under report is described in Appendix 4.

## **7. UNESCO-UNICEF Assisted School Science Pilot Project**

In the past few years, the NCERT has been developing new instructional materials in science and mathematics for the purpose of upgrading science teaching in schools. Under this pilot project, the Council plans to go in a big way to re-organise, strengthen and improve the teaching of science at the entire school stage in the country with the assistance of UNESCO and UNICEF. During 1970-71, 13 States and one Union Territory introduced the adopted/adapted versions of NCERT science materials in about 50 of their selected primary and 30 middle schools. The Council supplied to each of these experimental schools with a composite primary science kit. These kits were designed and fabricated in the Central Science Workshop of the Council. The UNICEF supplied to 79 key institutions which included State Institutes of Science Education and other State level institutions, science equipment for their laboratories. At the request of the UNICEF, the progress of the project was evaluated during the year under report by a team of Experts from the Centre for Educational Development Overseas, London. The team made recommendations for the future development of the project.

In the coming years, it is proposed to introduce the project in all the States and Union Territories. It is also intended to extend the scope of the project to the entire school stage in a phased programme. For this purpose, new instructional materials and science kits will be supplied to the schools by the Council. Realising that the success of such projects largely depends on the teachers and their training, it is proposed to supply in the second project UNICEF science equipment to all the primary and secondary teacher training institutions in the country. The equipment will be used both for pre-service and in-service training of teachers. Orientation courses will also be organised for teacher educators for demonstrating the use of science equipment.

### **8. Crash Programme For Evaluation Of School Textbooks**

As public opinion has, of late, been very much exercised about the appropriateness of content in school textbooks in the country, the Ministry of Education and Youth Services undertook a crash programme for evaluation of school textbooks during 1970-71 with a view to identifying the material prejudicial to national integration. The NCERT was entrusted with its implementation. A note giving description of this programme and the work done thereunder during 1970-71 may be seen in Appendix 5.

### **9. The Examination Reform Programme**

For many years, the Council has been engaged in improving the examination system in the country. The examination reform programme of the Council has two major goals:

- i) To make examinations valid and reliable instruments of measuring pupil growth; and
- ii) To make them powerful instrument for improving the entire teaching-learning process.

The comprehensive programme of examination reform developed by the Council incorporates the improvement of question, question papers, scoring procedures and other similar aspects in regard to written examinations ; consideration of both the process and product of evaluation in practical examinations and the inclusion of verbal expression as well as organisation of content in oral examinations. The programme also advocates the extension of evaluation techniques to observation, interviews, rating scales, etc. It also aims at improving the mechanics of conducting examinations and the use of test scores not only for grading, classification and certification, but also for the purposes of diagnosis, remedial instruction, academic prediction, etc. Consequential changes in the area of curriculum, textbooks, instructional methods and materials and in the training of teachers are also not lost sight of in the programme. The work of the Council in this sphere has made a good impact on the States,

During the year under report, workshops for papersetters/resource persons in different school subjects were organised at the instance of State Boards of Secondary Education, Madhya Pradesh and Rajasthan and the Gujarat S.S.C. Examination Board. Besides, an intensive programme of examination reform was also initiated for schools affiliated to the Council for Indian School Certificate Examination. But the most significant events of the year in this area were: (i) organisation by the Council of a course in educational evaluation, curriculum and instruction for 12 officers of His Majesty's Government of Nepal; and (ii) appointment of a C.A.B.E.'s Committee on Examinations with Union Education Minister for Education as the Chairman and Director, NCERT as the Member-Secretary.

#### **10. National Science Talent Search Scheme**

The National Science Talent Search Scheme which was started as a pilot project in 1963 for the Union Territory of Delhi only was subsequently expanded into an all-India scheme in 1964. The object of this scheme is to discover really talented students at the close of the secondary stage who are likely to make contribution in the field of science and afford them required facilities for study without any financial worry up to the Ph. D. level. When the scheme was initiated, the competitive examination for selecting students was conducted in English only. Beginning from the year 1969, the examination is now conducted in all the regional languages. A report on the implementation of the scheme during 1970-71 is given in Appendix 6.

#### **11. Population Education**

Population explosion is causing great concern in the developing countries like ours. The fruits of development are eroded by the phenomenal increase in population. Population education which is a nascent field is, therefore, being considered necessary all the world over.

In view of the significance of population education at the school stage, the Union Ministry of Education and Youth Services entrusted a project in population education to the NCERT during 1969-70. The Council set up in 1970-71 a Special Unit in its Department of Social Sciences and Humanities to formulate and implement appropriate programmes in this area. During the year under report, the Unit developed programmes of curriculum and instructional materials in various school subjects after making a status study of the existing syllabi. It also organised two all-India workshops to develop proposals for the curriculum in population education. Besides, the Unit produced literature on the subject which includes: (i) *An Analysis of Syllabuses—A Status Study*; (ii) *A Draft Syllabus on Population Education*; and (iii) *A Brochure on Demography*.

## 12. National Integration Project

Since the attainment of independence, the problem of national integration has acquired great significance. National integration is proposed to be strengthened. A variety of activities through education of the young at the school stage can play an important role in this regard. To create the feeling of national oneness among the students, the Union Ministry of Education and Youth Services entrusted to the NCERT the project on National Integration, during the year 1969-70. The activities conducted under this project during 1970-71 are described in Appendix 7.

## 13. National Board of School Education

The idea of setting up a National Board of School Education at the Centre and its counterparts in the form of State Boards of School Education in different States and Union Territories was mooted by the Indian Education Commission (1964-66). The purpose of setting up National Board and State Boards of School Education, as recommended by the Commission, was to bring about a continuous improvement in standards at the school stage. The functions of the National Board of School Education, as recommended by the Education Commission, are as follows :

- To define expected and projected standards of attainment at different stages of school education;
- To revise such standards from time to time in keeping with national needs and with international developments;
- To evaluate the standards actually attained at various stages of school education in different parts of the country and ascertain the extent to which they approximate to the corresponding expected standards;
- To advise and assist State Governments to develop a programme of curricular reform, preparation of textbooks, teaching materials and evaluation aimed at raising standards at school stage; and
- To advise and assist State Governments and other authorities to plan and implement all programmes essential for the improvement of standards in school education.

The role and functions stipulated by the Education Commission for the National Board of School Education, as stated above, are to be performed by the NCERT as directed by the Government of India, Ministry of Education and Youth Services vide its letter No. F.1-3/68-NCERT dated October 14, 1969. During the year under report, as reported earlier, the proposal for setting up an organisation for carrying out the functions of the National Board of School Education was approved, in principle, by the Executive Committee of the Council in its meeting held on 20th April, 1970. Besides, the State Departments of Education were also approached to ascertain the

position regarding the setting up of State Boards of School Education vide Council's letter No. F. 39-1/70-P. 1 dated 27th July, 1970. Replies were received from the State Governments of Punjab, Orissa, Maharashtra, Tamil Nadu, Bihar, Rajasthan, and the Union Territories of L. M. & A. Islands, A. & N. Islands, N.E.F.A. and Tripura. The matter is being pursued with the non-responding States/Union Territories.

#### **14. International Education Year, 1970**

The General Assembly of the United Nations designated the year 1970 as the International Education Year and entrusted to UNESCO the responsibility for guiding activities for its implementation at the international level. The purpose of the International Education Year was to promote concerted action by the Member-States and the international community towards four main objectives :

- i) To take stock of the present situation of development of education throughout the World;
- ii) To focus attention on a number of major resources for both the expansion and improvement of education;
- iii) To make available larger resources for education; and
- iv) To strengthen international cooperation in the field of education.

The main theme of the International Education Year was "Educational Problems of the Seventies."

As a part of the celebrations of the International Education Year, some programmes were undertaken by the NCERT, description of which is given in Appendix 8.

#### **15. Assistance to Professional Educational Organisations**

There are a number of professional educational organisations in the country which undertake work that is of value either directly or indirectly to school education. The NCERT has been operating a scheme of financial assistance to such organisations in the past few years on the lines of the scheme of assistance to voluntary educational organisations started by the Union Ministry of Education during the First Five-Year Plan. In 1970-71, detailed rules and procedures for dealing with the question of financial assistance to these organisations were evolved by a Sub-Committee of the Programme Advisory Committee of the Council. The details in respect of financial assistance provided to the various professional educational organisations during 1970-71 are given in Appendix 9.

#### **16. Research Studies, Investigations and Surveys**

Ever since its inception in September, 1961, the Council has addressed itself to the task of investigating fundamental processes of learning and

thinking which include motives for achievement, the pattern of development of Indian children against socio-economic background, the development of tests, study of the gifted child, etc. It has made attempts to analyse and seek answers to the problems of classroom teaching. It has also embarked upon a series of educational surveys to provide basic data on important issues that may be helpful for policy-making and planning for further educational development. A brief description of research projects and educational surveys completed/undertaken during the year under report is furnished in Appendix 10.

#### **17. Scheme of Grant-in-Aid for Approved Research Projects**

In addition to the research that the Council undertakes under its own research programmes, through its various constituent units, it farms out in collaboration or independently, research projects to various University Departments of Education, teacher training colleges, voluntary educational organisations and individuals desirous of carrying out educational research. The purpose has been to activise research and to build up focal points all over the country that will act as centres seeking to stimulate educational research in Indian situation. So far, 93 research projects dealing with a variety of important aspects of education have been farmed out to various institutions/individuals in different parts of the country. During the year under report, six new research projects were sanctioned and assistance was also provided for publication of two Ph.D. theses. The details of these projects/Ph. D. theses together with financial assistance approved for each during the year are shown in Appendix 11.

#### **18. Experimental Projects**

The Council is not only engaged in conducting research projects through its own constituent units and in collaboration with reputed centres of educational research in different parts of the country but also has sought to develop research mindedness among the secondary school teachers by encouraging them to undertake small experimental projects of action research type to solve their own classroom problems with financial assistance and academic guidance provided by the Council. The scheme of experimental projects was started more than a decade ago and the response has been quite encouraging. During 1970-71, 252 projects at an estimated cost of a little over one lakh rupees were approved for financial assistance. The Committee set up by the Council in 1969-70 to evaluate the working of this scheme has since finalised its report.

#### **19. Training Programmes**

One of the main activities of the Council is pre-service and in-service training of secondary school teachers. Besides, in-service training programmes are also organised for headmasters of primary and secondary

chools, teacher educators working in primary and secondary training institutions and inspectors of schools. Pre-service training is provided in the four Regional Colleges of Education and the Central Institute of Education, Delhi, while in-service training is imparted by all the constituent units of the Council. The activities of the Council in this area during 1970-71 are described in Appendix 12.

## 20. Extension and Field Services

Considerable attention has been paid by the Council to work in the area of extension and field services ever since its inception in September, 1961. Extension and field services are provided through a variety of activities. The important among them include the organisation of extension services through 140 Extension Services Centres located in selected primary and secondary teacher training institutions throughout the country; encouraging teachers by special awards to identify problems of classroom teaching and suggest the solutions based on their own experiences ; organising various seminars and workshops for the benefit of different categories of educational workers ; lending educational films and filmstrips to schools, etc. A description of the work done in this area during the year under report is given in Appendix 13.

## 21. Collaboration with the States and Union Territories

As in previous years, during 1970-71 also the Council and its expertise continued to help the State Departments of Education, State Boards of Secondary Education and other State educational agencies in matters relating to the improvement of school education. One of the significant developments in promoting cooperation between the NCERT and the State Governments during the year was the establishment of the Offices of the Field Advisers of the Council in the States. The main functions of the Field Advisers are to keep liaison between the State Departments of Education and the NCERT and to provide academic guidance to primary and secondary extension services centres in the States. At present, 9 Offices of the Field Advisers are functioning in different States with the jurisdiction as mentioned below :

### *Office of the Field Adviser*

Bangalore  
 Bikaner (since shifted to Jaipur)  
 Bhopal  
 Bhubaneswar  
 Hyderabad  
 Shillong

### *Jurisdiction*

Mysore, Tamil Nadu and Pondicherry  
 Rajasthan  
 Gujarat, Madhya Pradesh, Maharashtra, Goa and Nagar Haveli  
 Bihar, Orissa, West Bengal, and A & N Islands  
 Andhra Pradesh  
 Assam, Nagaland, Manipur, Meghalaya, N.E.F.A. and Tripura

Trivandrum  
Delhi  
Delhi

Kerala  
Delhi and U.P.  
Haryana, Himachal Pradesh, Jammu  
& Kashmir, Punjab and Chandigarh

A description of collaborative activities between the Council and the State Governments/Union Territory Administrations during 1970-71 is given in Appendix 14.

## 22. Collaboration with the Ministry of Education and Youth Services

In pursuance of the Government Resolution of 4th August, 1969, the Council continued to function as the Academic Wing of the Ministry of Education and Youth Services during 1970-71. The staff of the Council actively collaborated with the Ministry through representation on several of the Boards, Study Groups, etc. set up by the Ministry. A brief report of of this collaboration is furnished in Appendix 15.

## 23. International Collaboration

During the year under report, the Council continued to receive assistance in terms of expertise, equipment, etc. from the UNESCO, UNICEF and other international organisations. Several staff members of the Council were deputed during the year to attend international conferences or to undergo advanced training under the fellowship schemes. Details in this respect may be seen in Appendix 16.

## 24. Publications

The Council brings out a variety of publications every year in the form of textbooks, instructional materials, teachers' guides, curriculum guides, supplementary reading material, yearbooks, research monographs, journals, reports and brochures and low cost editions of foreign books. During the year under report, 137 titles were printed and manuscript of the Fourth Yearbook on Secondary Education was sent to the press. A classified list of publications released during 1970-71 is given in Appendix 17 and an up-to-date list of NCERT textbooks prescribed by the various States/Union Territories, etc. in the Annexure to this Appendix.

A noteworthy feature which deserves special mention is the award of a certificate of Merit to the Council during the year under report by the Government of Maharashtra for Excellence in Printing to *Shasan Aur Samvidhan*, the Hindi edition of the Council's civics textbook for class VII.

In addition to the publications mentioned in Appendix 17, mimeographed material in the form of seminar/workshop reports, research monographs, etc. was also produced by the different constituent units of the Council.



## ACKNOWLEDGEMENTS

The Council expresses its deep sense of gratitude to the Union Minister for Education and Youth Services and all the staff of the Ministry for several facilities extended to it from time to time during the year under report. The Council is also grateful to several individuals who spared their valuable time to serve on its Committees and extended help in many other ways. Several organisations and institutions actively cooperated with the Council in its work. The State Departments of Education most willingly provided all the assistance the Council required. To all these, the Council expresses its gratitude.

Thanks are also due to the UNESCO, the UNICEF the UNDP, the British Council, the USAID, the US National Science Foundation, the Government of the U.S.S.R., the United Kingdom and the German Democratic Republic for the assistance they rendered in one form or the other.

# *Appendices*

## APPENDIX 1

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

1970-71

#### *A. The Council*

1. Prof. V.K.R.V. Rao  
Union Minister for Education  
and Youth Services  
Shastri Bhavan  
New Delhi (*President*)  
  
Shri Siddhartha Shanker Ray  
Union Minister for Education  
and Social Welfare  
(*President from 18.3.1971*)
2. Dr. D.S. Kothari  
Chairman  
University Grants Commission  
Bahadurshah Zafar Marg  
New Delhi
3. Secretary to the Government  
of India  
Ministry of Education and  
Youth Services  
Shastri Bhavan  
New Delhi
4. Dr. K.L. Shrimali  
Vice-Chancellor  
Banaras Hindu University  
Varanasi
5. Prof. S.N. Sen  
Vice-Chancellor  
Calcutta University  
Calcutta
6. Shri N.D. Sundaravadivelu  
Vice-Chancellor  
Madras University  
Madras
7. Smt. Sharda Divan  
Vice-Chancellor  
S.N.D.T. Women's University  
1 Nathibai Thackersey Road  
Bombay-20 BR
8. Education Minister  
Andhra Pradesh  
Hyderabad
9. Education Minister  
Assam  
Shillong
10. Education Minister  
Bihar  
Patna
11. Education Minister  
Gujarat  
Ahmedabad
12. Education Minister  
Haryana  
Chandigarh
13. Deputy Education Minister  
Jammu & Kashmir  
Srinagar
14. Education Minister  
Kerala  
Trivandrum
15. Education Minister  
Maharashtra  
Bombay

16. Education Minister  
Madhya Pradesh  
Bhopal
17. Education Minister  
Mysore  
Bangalore
18. Education Minister  
Orissa  
Bhubaneswar
19. Education Minister  
Punjab  
Chandigarh
20. Education Minister  
Rajasthan  
Jaipur
21. Education Minister  
Tamil Nadu  
Madras
22. Education Minister  
Uttar Pradesh  
Lucknow
23. Education Minister  
West Bengal  
Calcutta
24. Education Minister  
Nagaland  
Kohima
25. Chief Executive Councilor  
Delhi Administration  
Delhi
26. Education Minister  
Goa, Daman & Diu  
Panaji (Goa)
27. Education Minister  
Himachal Pradesh  
Simla
28. Education Minister  
Government of Pondicherry  
Pondicherry-1
29. Education Minister  
Government of Tripura  
Agartala
30. Education Minister  
Meghalaya  
Shillong
31. Prof. S.V.C. Aiya  
Director  
National Council of Educational  
Research and Training  
New Delhi
32. Prof. M.V. Mathur  
Director  
Asian Institute of Educational  
Planning and Administration  
New Delhi
33. Prof. Shanti Narayan  
Dean of Colleges  
Delhi University  
Delhi
34. Shri S. Udapachar  
Headmaster  
Nrupatunga Multipurpose  
Higher Secondary School  
Hyderabad
35. Shri D.S. Bajpai  
Principal  
Kendriya Vidyalaya  
Indian Institute of Technology  
Kanpur
36. Joint Director  
National Council of Educational  
Research and Training  
New Delhi
37. Dr. R.H. Dave  
Head of the Department of  
Textbooks  
National Council of Educational  
Research and Training  
New Delhi
38. Dr. M.C. Pant  
Head of the Department of  
Science Education  
National Council of Educational  
Research and Training  
New Delhi
39. Shri P.D. Sharma  
Principal  
Regional College of Education  
Bhubaneswar

- |  |   |
|--|---|
| <p>40. Shri T.R. Jayaraman<br/>Joint Secretary<br/>Ministry of Education and<br/>Youth Services<br/>New Delhi</p> <p>41. Shri O.P. Mohla<br/>Financial Adviser (NCERT)<br/>Ministry of Education and<br/>Youth Services<br/>New Delhi</p> <p>42. Shri Bhakt Darshan<br/>Union Minister of State for<br/>Education and Youth Services<br/>New Delhi</p> <p>43. Shri H. Narasimhaiah<br/>Principal<br/>The National College<br/>Bangalore-4</p> <p>44. Shri I.J. Patel<br/>'Sanparan'<br/>Gulbai's Tekras<br/>Ahmedabad-6</p> <p>45. Shri S.P. Verma<br/>Director of Public Instruction<br/>Madhya Pradesh<br/>Bhopal</p> <p>46. Prof. Rais Ahmed<br/>Head of the Department of Physics<br/>Aligarh Muslim University<br/>Aligarh</p> <p>47. Shri D.B. Phatangare<br/>Thombre Building<br/>Kopargaon<br/>Distt. Ahmednagar (Maharashtra)</p> | <p>48. Shri S.V. Chittibabu<br/>Director of School Education<br/>Tamil Nadu<br/>Madras-6</p> <p>49. Km. K. Pasricha<br/>Principal<br/>Kanya Mahavidyalaya<br/>Jullundur City</p> <p>50. Dr. D. N. Gokhale<br/>12 Fergusson College Campus<br/>Poona-4</p> <p>51. Dr. K. Kuruwila Jacob<br/>Principal<br/>The Cathedral &amp; John Connon<br/>School<br/>6 Outram Road<br/>Bombay-1</p> <p>52. Shri M. Abdul Ghani Saheb<br/>429 P.R. Street<br/>Muslimpur<br/>Veniymbadi<br/>Distt. North Arcot (Tamil Nadu)</p> <p>53. Shri K. Sukumaran<br/>Education Officer<br/>Kendriya Vidyalaya Sangathan<br/>Nehru House<br/>Bahadur Shah Zafar Marg<br/>New Delhi</p> <p>Secretary<br/>National Council of Educational<br/>Research and Training<br/>New Delhi (Secretary)</p> |
|--|---|

### *B. Executive Committee*

- |   |  |
|---|--|
| <p>1. Prof. V.K.R.V. Rao<br/>Union Minister for Education<br/>and Youth Services (<i>President</i>)<br/>Shri Siddhartha Shankar Ray<br/>Union Minister for Education<br/>and Social Welfare (<i>President</i> from<br/>18.3.71)</p> | <p>2. Prof. S.V.C. Aiya<br/>Director<br/>National Council of Educational<br/>Research and Training<br/>New Delhi (<i>Vice-President</i>)</p> |
|---|--|

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  
Dean of Colleges  
University of Delhi  
Delhi
6. Shri S. Udapachar  
Headmaster  
Nrupatunga Multipurpose Higher  
Secondary School  
Hyderabad
7. Shri D. S. Bajpai  
Principal  
Kendriya Vidyalaya  
Indian Institute of Technology  
Kanpur
8. Joint Director  
National Council of Educational  
Research and Training  
New Delhi
9. Dr. R.H. Dave  
Head of the Department of  
Textbooks  
National Council of Educational  
Research and Training  
New Delhi
10. Dr. M. C. Pant  
Head of the Department of Science  
Education  
National Council of Educational  
Research and Training  
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

Secretary  
National Council of Educational  
Research and Training  
New Delhi (*Secretary*)

### *C. 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  
National Council of Educational  
Research and Training, New Delhi
  3. Prof. M.V. Mathur  
Director  
Asian Institute of Educational  
Planning and Administration  
New Delhi
  4. Prof. Shanti Narayan  
Dean of Colleges  
University of Delhi, Delhi
  5. Shri O.P. Mohla  
Financial Adviser (NCERT)  
Ministry of Education and Youth  
Services, New Delhi
- Shri S.A. Abidin  
Secretary  
National Council of Educational  
Research and Training, New Delhi

## *D. Programme Advisory Committee*

1. Director  
National Council of Educational  
Research and Training  
New Delhi (*Chairman*)
  2. Joint Director  
National Council of Educational  
Research and Training  
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. Smt. Elisaba Zachariah  
Head of the Department of Education  
University of Kerala  
Thycand  
Trivandrum
  6. Prof. V.R. Taneja  
Dean and Head  
Department of Education  
Punjab University  
Chandigarh
  7. Prof. C.S. Bennur  
Dean and Principal  
University College of Education  
Karnatak University  
Dharwar
- Directors of State Institutes of Education**
8. Dr. (Km.) A. Nanda  
Director  
State Institute of Education  
Delhi
  9. Dr. N.K. Upasani  
Director  
State Institute of Education  
M.S. Sadashiv Peeth  
Kumthekar Road  
Poona
  10. Shri M. Ghosh  
Principal  
State Institute of Education  
Banipur  
P.O. Baigachi  
Dist. 24 Parganas
  11. Dr. G. Gopalakrishnan  
State Council of Educational  
Research and Training  
6-2-688 Chintalbasti  
Hyderabad
  12. Begum M. Qureshi  
Director  
State Institute of Education  
Srinagar
- Members of Staff of the NCERT**
13. Shri S.L. Ahluwalia  
Head  
Department of Teaching Aids  
New Delhi
  14. Dr. A.N. Bose  
Prof. and Head of the Department  
of Science  
Regional College of Education  
Ajmer
  15. Km. A. Chari  
Principal  
Regional College of Education  
Mysore (took over as Commissioner  
Kendriya Vidyalaya Sangathan,  
New Delhi in November, 1970)
  16. Dr. R.C. Das  
Principal  
Regional College of Education  
Ajmer
  17. Dr. R.H. Dave  
Head  
Department of Textbooks  
New Delhi

- |  |   |
|--|---|
| <p>18. <b>Shri M.D. Devadasan</b><br/>Prof. and Head of the Department<br/>of Education<br/>Regional College of Education<br/>Bhopal</p>   | <p>26. <b>Shri D.S. Rawat</b><br/>Incharge<br/>Department of Pre-Primary and<br/>Primary Education<br/>New Delhi</p>                        |
| <p>19. <b>Dr. (Km.) S. Dutt</b><br/>Reader<br/>Central Institute of Education<br/>Delhi</p>  | <p>27. <b>Prof. P.K. Roy</b><br/>Principal<br/>Central Institute of Education<br/>Delhi</p>   |
| <p>20. <b>Shri C.V. Govinda Rao</b><br/>Prof. and Head of Department<br/>of Technology<br/>Regional College of Education<br/>Mysore (Principal of RCE Mysore<br/>since November, 1970)</p> | <p>28. <b>Shri N.K. Sanyal</b><br/>Field Adviser<br/>Department of Science Education<br/>New Delhi</p>                                      |
| <p>21. <b>Dr. (Km.) E. Marr</b><br/>Reader<br/>Department of Teacher Education<br/>New Delhi</p>   | <p>29. <b>Dr. A.N. Sharma</b><br/>Reader<br/>Department of Educational Psychology<br/>and Foundations of Education<br/>New Delhi</p>        |
| <p>22. <b>Dr. (Smt.) Perin H. Mehta</b><br/>Offg. Head<br/>Department of Educational Psychology<br/>and Foundations of Education<br/>New Delhi</p>   | <p>30. <b>Shri P.D. Sharma</b><br/>Principal<br/>Regional College of Education<br/>Bhubaneswar</p>  |
| <p>23. <b>Shri T.S. Mehta</b><br/>Incharge<br/>Department of Social Sciences and<br/>Humanities<br/>New Delhi</p>  | <p>31. <b>Shri Shankar Narayan</b><br/>Reader<br/>Department of Teaching Aids<br/>New Delhi</p>   |
| <p>24. <b>Dr. R.G. Misra</b><br/>Incharge<br/>Data Processing and Educational<br/>Survey Unit<br/>New Delhi</p>  | <p>32. <b>Dr. G.S. Shrikantia</b><br/>Prof. and Head of the Department of<br/>Science<br/>Regional College of Education<br/>Bhubaneswar</p> |
| <p>25. <b>Dr. M.C. Pant</b><br/>Head<br/>Department of Science Education<br/>New Delhi</p>   | <p>33. <b>Prof. J.K. Shukla</b><br/>Principal<br/>Regional College of Education<br/>Bhopal</p>  |

### *E. Publication Advisory Committee*

- |  |  |
|--|--|
| <p>1. <b>Prof. M. Mujib</b><br/>Vice-Chancellor<br/>Jamia Millia Islamia<br/>New Delhi (<i>Chairman</i>)</p> | <p>2. <b>Shri N.K. Sundaram</b><br/>Assistant Educational Adviser<br/>Publication Unit<br/>Ministry of Education and<br/>Youth Services, New Delhi</p> |
|--|--|



3. **Km. A. Chari**  
Commissioner  
Kendriya Vidyalaya Sangathan  
Nehru House  
Bahadur Shah Zafar Marg  
New Delhi-1
4. **Shri U.R. Scolekar**  
Director  
Maharashtra State Bureau of  
Textbooks Production and  
Curriculum  
'Surekh' University Road  
Poona-16
5. **Shri M.P.N. Sharma**  
Managing Director  
Bihar State Textbooks  
Publishing Corporation Pvt. Ltd.  
White House  
Buddha Marg  
Patna-1
6. **Shri N. Narayan Rao**  
Director  
Andhra Pradesh Textbook Press  
Mint Compound  
Hyderabad
7. **Shri A.E.T. Barrow**  
Secretary  
Council for the Indian Schools  
Certificate Examination  
B-27 Nizamuddin East  
New Delhi-13
8. **Shri D.R. Mankekar**  
39 Bharati Nagar  
New Delhi
9. **Begum M. Qureshi**  
Director  
State Institute of Education  
Srinagar
10. **Prof. C.S. Bennur**  
Dean & Principal  
University College of Education  
Karnatak University  
Dharwar-1
11. **Shri T.S. Sadasivan**  
Head of the Botany Department  
Madras University  
Madras
12. **Shri T.V. Thimme Gowda**  
Director of Textbooks  
30/30-A Kumar Park West  
Bangalore-20
13. **Shri K.L. Bordia**  
Chairman  
Board of Secondary Education  
Rajasthan  
Ajmer
14. **Shri S.S. Sodhi**  
Chairman  
Punjab School Education Board  
Chandigarh
15. **Shri D.S. Bajpai**  
Principal  
Kendriya Vidyalaya  
Indian Institute of Technology  
Kanpur
16. **Shri D. Raghavan**  
Head  
Publication Unit  
National Council of Educational  
Research and Training  
New Delhi (*Member-Secretary*)

### *F. Science Advisory Committee*

1. **Dr. D.S. Kothari**  
Chairman  
University Grants Commission  
New Delhi (*Chairman*)
2. **Dr. R.C. Mehrotra**  
Professor and Head of the  
Department of Chemistry  
Rajasthan University, Jaipur

3. Dr. A.M. Gho  
Professor  
Bose Institute  
93/1 Acharya Prafulla Chandra Road  
Calcutta-9
4. Shri R.K. Rath  
Secretary to the Govt. of Orissa  
Education Department  
Bhubaneswar
5. Prof. B. Venkataraman  
Tata Institute of Fundamental  
Research  
Homi Bhaba Road  
Bombay
6. Dr. A.R. Vasudeva Murthy  
Professor Inorganic and  
Mineral Chemistry  
Indian Institute of Science  
Bangalore-12
7. Dr. Rais Ahmed  
Professor of Physics  
Department of Physics  
Aligarh Muslim University  
Aligarh
8. Shri B.M. Johri  
Professor and Head of the  
Department of Botany  
University of Delhi  
Delhi
9. Shri S. Udapachar  
Headmaster  
Nrupatunga Multipurpose  
Higher Secondary School  
Hyderabad
10. Prof. V.R. Taneja  
Dean and Head  
Department of Education  
Punjab University  
Chandigarh
11. Shri M. Ghosh  
Principal  
State Institute of Education  
Banipur  
P.O. Baigachi  
Distt. 24 Parganas
12. Dr. R.C. Das  
Principal  
Regional College of Education  
Ajmer
13. Dr. M.C. Pant  
Head  
Department of Science Education  
National Council of Educational  
Research and Training  
New Delhi (*Member-Secretary*)

### *G. Building and Works Committee*

1. Prof. S.V.C. Aiya  
Director  
National Council of Educational  
Research and Training  
New Delhi (*Chairman*)
2. Shri B. Rama Rao  
Superintending Surveyor of Works (I)  
Central Public Works Department  
Nirman Bhavan  
New Delhi
3. Shri B.R. Gambhir  
Assistant Financial Adviser  
Ministry of Finance (Works)  
Nirman Bhavan  
New Delhi
4. Shri J.M. Benjamin  
Senior Architect (I)  
CPWD (Consulting Architect of  
the Council)  
Nirman Bhavan  
New Delhi

5. **Shri O.P. Mohla**  
Financial Adviser (N. C. E. R. T.)  
Ministry of Education and  
Youth Services  
Shastri Bhavan  
New Delhi
6. **Shri T.R. Jayaraman**  
Joint Secretary  
Ministry of Education and  
Youth Services  
Shastri Bhavan  
New Delhi
7. **Shri S.C. Varshneya**  
Deputy General Manager  
Delhi Electric Supply Undertaking  
Raj Ghat  
Power House  
New Delhi
8. **Shri Prabhakar Saroop**  
Executive Engineer (Bldg.)  
Municipal Corporation of Delhi  
Town Hall  
Delhi
9. **Prof. Shanti Narayan**  
Dean of Colleges  
University of Delhi  
Delhi
10. **Joint Director**  
National Council of Educational  
Research and Training  
New Delhi
11. **Shri S.A. Abidin**  
Secretary  
National Council of Educational  
Research and Training  
New Delhi (*Member-Secretary*)

### *H. Establishment Committee*

1. **Dr. D.S. Kothari**  
Chairman  
University Grants Commission  
New Delhi (*Chairman*)
2. **Prof. S.V.C. Aiya**  
Director  
National Council of Educational  
Research and Training  
New Delhi (*Vice-Chairman*)
3. **Joint Director**  
National Council of Educational  
Research and Training  
New Delhi
4. **Shri T.R. Jayaraman**  
Joint Secretary  
Ministry of Education and  
Youth Services  
New Delhi
5. **Shri O.P. Mohla**  
Financial Adviser (NCERT)  
Ministry of Education and  
Youth Services  
New Delhi (*Member Ex-officio*)
6. **Prof. Shanti Narayan**  
Dean of Colleges  
University of Delhi  
Delhi
7. **Prof. S.P. Luthra**  
Indian Institute of Technology  
New Delhi
8. **Dr. B.N. Ganguli**  
7-B Hauz Khas Enclave  
Ishwar Bhavan  
New Delhi-16
9. **Dr. B.R. Seshachar**  
Head of the Department of Zoology  
University of Delhi  
Delhi
10. **Shri S.A. Abidin**  
Secretary  
National Council of Educational  
Research and Training  
New Delhi (*Member-Secretary*)

## APPENDIX 2

### *Fourth Five - Year Plan Allocations*

<i>Department/Scheme</i>	<i>Allocations (Rs. in lakhs)</i>
1. Department of Science Education	30.00
2. Central Science Workshop	23.00
3. National Science Talent Search Scheme	60.00
4. Summer Institutes in Science	90.00
5. Department of Educational Psychology 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/Services including Buildings	80.00
13. Cooperative Research and Development	42.00
14. Grants to Extension Services Centres	90.00
15. Regional Colleges of Education	130.00
16. Central Institute of Education	5.00
17. Publication Unit	65.00
18. Department of Adult Education	10.00
19. NCERT Headquarters	58.00
20. National Council for Science Education	15.00
<b>TOTAL</b>	<b>750.00</b>

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

# ANNUAL PHASING OF SCHEMES

## 1. 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 (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 on Teaching of Science and Mathematics at the Secondary Stage.	3.75	—	0.75	1.00	1.00	1.00
<b>2. Ancillary Curriculum Projects - Production of film-strips, films, designing, new science experiments equipment and kits</b>						
					Cost of staff included in 1(c) above.	
<b>3. Development of State Leadership - Training Leadership Courses, improved pre-service, in-service training programme, orientation programmes for S.I.S. &amp; S.I.E personnel.</b>	3.70	0.21	0.45	0.99	1.01	1.04
<b>4. Extension and Consultancy Programmes:</b> Adoption and adaptation of NCERT curricular materials, Development of Instructional materials, production of journals and supplementary reading materials.	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>	<u>30.00</u>	<u>6.49</u>	<u>8.10</u>	<u>5.09</u>	<u>5.13</u>	<u>5.19</u>

## 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.,)	1.75	1.00	3.00	4.00	4.50	5.25
2. Equipment	5.25	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 60</b>

## 3. National Science Talent Search Scheme

	1969-74	69-70	70-71	71-72	72-73	73-74
1. National Science Talent Search						
i) Scholarship, book award, tuition fee of Scholars 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.	10.64	—	0.40	1.50	3.50	5.24
3. Talented Science Teachers Scheme (75 per batch)	9.00	—	—	—	4.00	5.80
<b>TOTAL</b>	<b>60.00</b>	<b>3.30</b>	<b>5.65</b>	<b>8.75</b>	<b>18.75</b>	<b>23.55</b>

## 4. Summer Institutes in Science

	1969-74	69-70	70-71	71-72	72-73	73-74
Summer Institutes 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 Processes	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 investigation 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>4.00</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 and 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>	<u>7.00</u>	<u>0.85</u>	<u>1.91</u>	<u>1.68</u>	<u>1.54</u>	<u>1.02</u>

### 7. Department of Social Sciences and Humanities

	1969-74	69-70	70-71	71-72	72-73	73-74
1. Social Sciences Programme	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>	<u>10.00</u>	<u>2.33</u>	<u>2.33</u>	<u>1.88</u>	<u>1.76</u>	<u>1.70</u>



### 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>	<u>5.00</u>	<u>0.25</u>	<u>1.53</u>	<u>1.06</u>	<u>1.08</u>	<u>1.08</u>

### 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>	<u>10.00</u>	<u>1.44</u>	<u>2.90</u>	<u>1.83</u>	<u>2.01</u>	<u>1.82</u>

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

	<i>1969-74</i>	<i>69-70</i>	<i>70-71</i>	<i>71-72</i>	<i>72-73</i>	<i>73-74</i>
1. Organization 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>	<u>3.00</u>	<u>0.60</u>	<u>0.60</u>	<u>0.60</u>	<u>0.60</u>	<u>0.60</u>

**11. Department of Teacher Education**

	<i>1969-74</i>	<i>69-70</i>	<i>70-71</i>	<i>71-72</i>	<i>72-73</i>	<i>73-74</i>
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 for Elementary Teachers	0.10	0.10	—	—	—	—
9. Conferences/Seminars, etc.	0.90	—	0.30	0.20	0.20	0.20
<b>TOTAL</b>	<u>3.00</u>	<u>0.15</u>	<u>0.65</u>	<u>0.90</u>	<u>0.52</u>	<u>0.78</u>

## 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 (Organised by NIE Deptt.)	15.00	2.00	3.15	3.25	3.25	3.35
4. Library, Documentation and Information 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 Projects	15.00	3.00	3.00	3.00	3.00	3.00
2. Experimental Projects in Schools	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, Eva- luation, Guidance and other fields	3.01	—	—	0.90	1.10	1.01
<b>TOTAL</b>	<b>42.00</b>	<b>8.75</b>	<b>11.49</b>	<b>9.20</b>	<b>7.15</b>	<b>5.41</b>

#### 14. Regional Colleges of Education

	1969-74	69-70	70-71	71-72	72-73	73-74
1. Scholarships	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>

#### 15. Central Institute of Education

	1969-74	69-70	70-71	71-72	72-73	73-74
1. M.A. in Education	2.64	—	—	—	1.00	1.64
2. Special Education Unit	1.01	—	—	—	0.61	0.40
3. Enrichment of Ph.D. Programmes	0.16	—	—	—	0.08	0.08
4. Award of Junior Fellowships	0.33	0.03	0.04	0.06	0.10	0.10
5. Language Laboratory	0.50	—	—	—	0.50	—
6. Addition to CIE Building	0.36	—	—	—	0.36	—
<b>TOTAL</b>	<b>5.00</b>	<b>0.03</b>	<b>0.04</b>	<b>0.06</b>	<b>2.65</b>	<b>2.22</b>

#### 16. Publication Unit

	1969-74	69-70	70-71	71-72	72-73	73-74
Printing and Publication of Educational literature	65.00	16.25	18.25	13.75	8.50	8.25
<b>TOTAL</b>	<b>65.00</b>	<b>16.25</b>	<b>18.25</b>	<b>13.75</b>	<b>8.50</b>	<b>8.25</b>

**17. 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>

**18. NCERT Headquarters**

	1969-74	69-70	70-71	71-72	72-73	73-74
1. Customs duties, incidental on foreign stores	2.00	—	0.25	0.50	0.65	0.60
2. Grants to professional organisations	3.00	0.50	0.90	0.50	0.55	0.55
3. Meetings of Study Group, Evaluation of State Schemes	2.00	0.50	0.20	0.55	0.40	0.35
4. Visits of NCERT Officers Abroad	1.00	—	0.15	0.50	0.20	0.15
5. Equipment	3.00	1.00	0.50	1.50	—	—
6. Population Education	3.00	—	1.00	1.00	0.50	0.50
7. Language Laboratories	6.00	—	1.00	2.00	1.50	1.50
8. Regional Film Libraries	8.00	—	1.40	2.40	2.20	2.00
9. Field Officers in States	20.00	—	5.00	6.00	4.50	4.50
10. Special Programmes Pre-Primary Education	5.00	—	1.00	1.25	1.25	1.50
11. Conferences and other Misc. Schemes	5.00	—	1.60	1.00	1.20	1.20
<b>TOTAL</b>	<b>58.00</b>	<b>2.00</b>	<b>13.00</b>	<b>17.20</b>	<b>12.95</b>	<b>12.85</b>

**19. National Council of Science Education**

	1969-74	69-70	70-71	71-72	72-73	73-74
National Council of Science Education	15.00	2.50	12.50	—	—	—
<b>TOTAL</b>	<b>15.00</b>	<b>2.50</b>	<b>12.50</b>	<b>—</b>	<b>—</b>	<b>—</b>

### APPENDIX 3

## *Statement of Accounts of National Council of Educational Research and Training for the Year 1970-71*

### Consolidated Receipts and Payments Account

RECEIPTS		PAYMENTS	
Opening Balance	18,18,468.41	NON-PLAN	
<i>Grants-in-aid from Government</i>		(a) Expenditure on Pay and Allowances, Programmes etc.	2,03,31,288.63
(a) General Grant of NCERT	3,43,90,000.00	(b) Loans and Advances	6,26,967.91
(b) Pilot Projects	7,70,000.00	PLAN	1,62,58,340.03
(c) Specific Programmes	6,76,150.00	Unspent Balance refunded to Government for 1969-70	11,74,466.87
(d) Special Grant for Tribal Education Unit	1,01,393.00	Unspent balance of specific Grant refunded to Govt.	86,696.21
Contributions from other sources	3,851.94	Tribal Education Unit	70,798.90
Sale of Publications, etc.	19,62,393.36	Deposits and Advances	14,56,041.55
Provident Fund	10,86,173.94	Closing Balance	29,94,698.10
Other Miscellaneous Receipts and Recoveries	21,90,867.55		
<b>TOTAL</b>	<b>4,29,99,298.20</b>	<b>TOTAL</b>	<b>4,29,99,298.20</b>

## APPENDIX 4

### *Curriculum Development*

A brief account of the progress made in the area of curriculum development during the year 1970-71 is given below :

#### 1. Science and Mathematics

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

Curriculum development in science at the primary school level aims at improving science teaching through active participation of children in the learning process and thus emphasising the 'process' of science rather than its 'product'. During the year under report, a textbook in science for Class IV and the accompanying teachers' guide (both Hindi and English versions) were finalised and sent to the press. The textbook is based on the primary science syllabus already developed by the Council in 1968-69. The textbooks that are being produced in accordance with the new syllabus are to be used by all the States under the UNESCO-UNICEF-assisted pilot project. Besides, some additional items of science equipment for use in the primary science kit were also developed. In order to support the teacher training programme and to show the teachers the new approach of teaching primary science, a set of about 40 coloured transparencies along with an instructional manual were developed. A 16 mm film entitled: "Science is Doing" which explains the new approach to primary science teaching was also developed. Designs of some of the items of the primary science kit were further improved in consultation with the National Small Industries Corporation.

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

During the last year, work on developing syllabi and related instructional materials for the middle school stage was completed under this project. During 1970-71, the draft syllabus for the three years of the senior high school stage was completed and printed for wider circulation. Based on this syllabus, draft textual materials in chemistry, physics and biology were prepared, in cooperation with a team of 10 UNESCO experts. Based on the feed-back of the middle school stage materials, revised versions (both Hindi and English) of physics, chemistry and biology, textual materials for the second year of the middle stage were prepared. Corresponding changes were also effected in the teachers' guides. These materials were circulated to the States.

The first prototypes of the following kits were developed and tested for making further improvements :

- (i) Physics demonstration kit no. II containing 70 items ;
- (ii) Chemistry demonstration kit for middle school stage containing 63 items and 67 chemicals ;
- (iii) Biology demonstration kit no. II for the two years of the middle school stage containing 97 items ;
- (iv) Pupils' chemistry kit (two variants).

The mathematics syllabus for the middle school stage was revised on the basis of the experience of the previous syllabus and draft materials for the first year of the middle school stage based on the revised syllabus were also prepared.

### 1.03 *A Comprehensive Scheme for the Improvement of Science Education (Study Groups)*

Out of the 20 Study Groups established in 1967, 18 (4 each in mathematics and biology and 5 each in physics and chemistry) continued to work during the year under report. The biology Study Groups finalised textual materials for the three years of the high school stage and also prepared the first draft of the corresponding teachers' guides. In addition, the Groups prepared the manuscript of the titles 'Medicinal Plants', 'Marine Plants' and 'The Microbes' and sent them for publication. The Chemistry Study Group at Madras had to be closed during the year due to the sad demise of the Director of the Group. The remaining 4 Groups completed the writing of the remaining two textbooks (Book 5 and Book 6) for the senior high school stage. They also finalised a laboratory manual and teachers' guide for the second year of the high school stage (Book 5). Work was also done by the Chemistry Study Groups on developing draft manuscripts of teachers' guide and a laboratory manual for the final year of the high school stage. The three Physics Study Groups developed textual materials for the second and third years of the middle school stage during the year under report. Part II of the physics book for the middle school stage was also printed and circulated to the States and Part III was sent to the press. Besides, these three Groups developed an outline of the draft syllabus for the senior high school stage and started writing the textual materials for this stage. They also developed a demonstration kit containing items for the second year of the middle school stage. One of the Physics Study Groups developed a different variant of the middle school materials in the form of students' workbooks. The first volume of these workbooks was published by the All-India Science Teachers' Association and circulated to the States. Another Study Group on Physics confined its activities to the development of new science equipment and question-answer materials. The Mathematics Study Groups completed the work on the preparation of the materials for the middle school stage. Algebra textbooks part II and part III were completed and sent to the press. Algebra part I was printed and circulated to the various institutions. Geometry textbooks (Parts 1, 2 and 3) were also printed during the year. Corresponding teachers' guides for these textbooks were also prepared and sent to the press. A draft syllabus in Mathematics for the high school stage was also developed.

### 1.04 *UNESCO-UNICEF-assisted Pilot Project for Strengthening of Science Teaching at the School Stage*

In July, 1969, the Steering Committee of the UNESCO-UNICEF-assisted project on re-organising and strengthening the teaching of science in schools decided to launch a pilot project in all the States from the beginning of the school year 1970. The Central Team consisting of representative of the Union Ministry of Education and Youth Services, NCERT, Planning Commission and UNICEF visited various places and finalised subsidiary plans of operations with each State to launch the programme. As a result of these visits and subsequent contacts by the NCERT with the States, 13 States and one Union Territory agreed in 1970-71 to adopt the NCERT materials for the primary and middle stages for try-out in about 30 of their selected middle schools and 50 primary schools. These States were required to adopt/adapt and translate the materials developed by the NCERT into regional languages to suit their requirements. Hindi versions of these materials were supplied directly by the NCERT to all the Hindi-speaking States. The Council organised orientation courses for key personnel from the State Institutes of Science Education who, in turn, were required to organise training courses for experimental school teachers in their respective States. Sample kits of science equipment were also supplied by the Council for use in experimental schools for the teaching of new science courses. Besides, the Council made arrangements for the distribution of UNICEF equipment to 79 key institutions selected under the project. A list of selected books to be given to these key institutions was also prepared and supplied to the UNICEF. A one-day orientation programme for the field staff of UNICEF posted in India was conducted by the Council to acquaint them with the various facets of this project and the materials being used. An evaluation



team, comprising Sarvashri D.R. Rawlins, D.G. Chisman and R.W. Morris from the Centre for Educational Development Overseas, London, visited this country during the year under report at the request of the UNICEF to evaluate the progress of the pilot project and make recommendations for its future development. The Council assisted the members of the team in their visit to the various States and also provided them with all the necessary data.

#### 1.05 *Production of Supplementary Reading Materials in Science*

During the year under report, work continued on the preparation of supplementary reading materials in science. Two more titles "The Insect Life" and "Non-Flowering Plants of the Himalayas" were printed. The two titles "The Story of Transport" and "The Marine Life" which were sent to the press last year reached the page proof stage during 1970-71.

The following titles were sent to the press :

- (1) Rock Unfold the Past
- (2) Bird and Bird Watching
- (3) Our Tree Neighbours
- (4) Microbes
- (5) Medicinal Plants

Manuscripts of the following two titles were approved for publication. Further progress was achieved in respect of the preparation of illustrations, etc. for these titles. Manuscripts are at different stages of finalisation :

- (1) The Story of Oil
- (2) Meghnad Saha Ka Jeevan Aur Karya

Manuscripts of the following titles were referred to authors for modification after review :

- (1) Lord Rutherford
- (2) Power from Water
- (3) Insectivorous Plants
- (4) The Ocean of Air
- (5) ABC of Atom

The following two titles were sent to the authors for evaluation last year. Their comments are still awaited :

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

Besides, further guidance was given to a number of authors working on titles which are still at the preliminary stage.

#### 1.06 *Production of Science Kits*

The Central Science Workshop of the Council continued to support the curriculum development programme of science by preparing prototypes of new science equipment and also by undertaking batch production of kits for use in experimental schools selected under the UNESCO-UNICEF-assisted pilot project. 1,250 primary science kits containing 69 items and a set of 9 hand tools were manufactured. 750 physics kit no. I containing 83 items, 750 biology kit no. I containing 17 items were also produced. Besides, production was undertaken for 300 physics kit no. II containing 70 items. The first three kits were supplied to the various States and Union Territories. The work regarding development of

prototypes of equipment for physics kit no. III and a demonstration kit each in chemistry and biology for the middle school stage was also undertaken during the year under report. Two variants of pupils' chemistry kit were developed, the batch production of which will be taken up in the next year for supply to the experimental schools under the UNESCO-UNICEF-assisted pilot project.

### 1.07 *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. An informational pamphlet "Information on Instructional Materials for School Science Teaching" prepared last year was revised to meet the continued demand and queries received from the various institutions, science teachers, administrators and teacher-educators. Under the series of the training materials for science teachers, the Centre produced the following brochures (mimeographed) for distribution to the various agencies :

- (1) Experimental Methods of Teaching Chemistry
- (2) Physical Facilities and Science Kits
- (3) Bases for Reconstruction of Syllabus in Teaching Science for Teacher Training Colleges.

The Centre received during the year science journals and other secondary science materials from 16 international organisations on exchange basis. Assistance and guidance was provided to teachers and teacher-educators from 15 institutions. The Centre also continued to provide assistance to the All-India Radio in developing its school television programme for science teaching. The Centre participated in the International Exhibition on Teaching Aids organised at Rangoon (Burma), where the kits were displayed and their use explained to the visitors. The Centre also participated in the International Education Year Seminar and exhibited the science materials in the National Seminar on Primary Education. Two more exhibitions of science kits and science equipment were organised by the Centre—one at the All-India Science Teachers' Association General Meeting and the other at the UNESCO Regional Seminar for out-of-School Science Activities, Science materials and audio-visual aids were also distributed by the Centre to the various State Institutes of Science Education. The Centre was visited during the year by about 300 teacher-educators, inspectors of schools, science supervisors, science counsellors, key persons from the States and a number of foreign educators.

## 2. Social Sciences

### 2.01 *Social Studies*

Draft syllabus in social studies for classes I-XI was revised and sent to the press. Work on the preparation of social studies textbook Vol. II for higher secondary classes was continued. Comprehensive handbook in social studies for teacher educators of elementary teacher training institutions was finalised. Besides, guidance was provided to the school Television Unit of All-India Radio, New Delhi, in the following social studies lessons :

- (1) Goswami Tulsidas
- (2) Raja Ram Mohan Roy Aur Aurobindo Ghosh
- (3) Soviet Sangh
- (4) Yatayat Ke Teevragami Sadhan
- (5) Sthaniya Shasan
- (6) Sthaniya Shasan Ke Karya

### 2.02 *Civics*

Under the programme of preparing instructional materials for students and teachers, manuscripts of 6 brochures containing teaching units in civics covering social sciences syllabus for the middle school stage were finalised and sent to the press. 6 supplementary

readers were also prepared and sent for printing. Besides, English version of civics textbook for class VII and Hindi version of civics textbook for class VIII were also finalised and sent to the press.

### 2.03 *Geography*

Geography textbook for Class VII (both Hindi and English versions) was released during the year. English and Hindi versions of geography textbook for Class VIII in the same series were also completed and sent to the press. In addition, the book on regional geography dealing with North America, Europe and the Soviet Union was completed and sent for printing. This book is meant for higher secondary classes and is fourth in the series. Hindi versions of three textbooks on physical geography, economic geography and practical geography are already in press. The Council's textbook on physical geography has been translated into Kannada by the University of Mysore. The book has been brought out in two forms—paperback and cloth-bound.

### 2.04 *History*

Work on the preparation of a brochure on "Student Participation in Teaching of History" was started during the year. As a part of the Instructional Materials Project, fourteen teaching units pertaining to Ancient Period of Indian History were scrutinized for purpose of publication. Work on the preparation of textbook for class VIII "Modern India" was also undertaken.

### 2.05 *Economics*

The draft syllabus in economics was finalised and further spelt out into teaching units and lesson titles in two workshops held in February and March, 1971.

### 2.06 *Agriculture*

Agriculture textbook Volume I was finalised and sent for printing. The second volume of the book is nearing completion except for a few lessons on Animal Sciences.

### 2.07 *Mother-Tongue*

A draft of graded vocabulary of more useful words in Hindi prepared last year was finalised during the year under report in a workshop. The vocabulary is divided into four parts, viz. pre-school vocabulary, primary school vocabulary, middle school vocabulary and high school vocabulary. The draft of the new Hindi Primer was also finalised and vetted during the year in a meeting of a Review Group. Its press copy and illustrations are ready and steps are being taken to get the Primer printed. The revised edition of 'Kavya Sankalan' (Hindi poetry textbook) for higher secondary classes was also finalised in a workshop. The work regarding preparation of its exercises is being taken up. The outline of the revised edition of 'Gadya Sankalan' (Hindi prose textbook) for higher secondary classes was also prepared and the work on the collection of the material for the same was started during the year.

### 2.08 *Second Languages*

The draft of the first textbook in Bengali as a second language was finalised. Its illustrations and press-copy are being prepared. The draft of the second textbook in Hindi as a second language was completed for being reviewed by a Review Group.

### 2.09 *Sanskrit*

General principles and draft syllabus for the teaching of Sanskrit at the middle school stage were developed.

### 2.10 *Production of Supplementary Reading Materials in Social Sciences*

During the year under report, the following supplementary reading materials were

prepared in social sciences for the students of middle school stage. The materials were finalised in two workshops of authors and reviewers :

- (1) Bharat Ke Pracheen Nagar
- (2) Hamari Van Sampati
- (3) Adim Yug Ke Avishkar

### 3. Coordinated Curriculum Plan for School Education

The Council has undertaken a project to develop a coordinated curriculum plan for general education which covers the entire school stage. Detailed syllabi are proposed to be worked out under this project in each subject area for classes I to XI. During the year under report, the coordinated curriculum plan and some of the syllabi were finalised.

### 4. Teacher Education

An experimental edition of the new curriculum for pre-primary teacher training institutions was prepared and distributed to the different agencies and institutions engaged in pre-school education in the various States and Union Territories. Curriculum in reading for training courses of junior training colleges was also developed in a six-day workshop. Curriculum plans for art education and work-experience were also developed for elementary teacher training institutions. Each curriculum plan in art education was tried out in the local schools of Delhi.

### 5. Development of National Curriculum Standards at the Primary Stage

During the year under report, a project was undertaken for developing minimum national standards for primary schools which may serve as criteria or reference material for the States for developing their own curricula. As a part of this project, the tentative objectives of primary education were developed at a national conference held in July, 1970. The comments of different State committees/authorities and specialists on these tentative objectives were obtained and analysed in an All-India Workshop held in January 1971. The objectives were finalised in the light of comments received from different sources. The facets of each finalised objective were further spelt out and the drafts of learning outcomes of some of the objectives specified in terms of areas of growth.

### 6. Curriculum in Work-Experience

The Departments of Education in the States of Mysore and Andhra Pradesh and Kendriya Vidyalaya Sangathan were assisted during the year under report in developing their curriculum plans and teaching units in the area of work-experience. Besides, the curriculum developed earlier in work-experience was tried out in the local schools of Delhi.

### 7. Tribal Education

Two syllabuses for in-service training in tribal life and culture, one for education officers and the other for primary school teachers working in tribal areas, were revised in the light of modifications suggested in a Conference held in November, 1970. The outline of the project "Preparation of Textbooks in Tribal Dialects" was sent to the State Governments of Bihar, Orissa and West Bengal for comments. Some folk songs, folk tales, etc. of the Santhal, the Oraon and the Munda tribes of Bihar were collected. Material for a Supplementary Reader on "National and Tribal Heroes" for tribal students was also collected.

## 8. Teaching Aids

The 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 flannelgraph 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 the various school subjects. During the year under report, the following materials were produced :

### *Filmstrips*

The filmstrips mentioned below were at the various stages of production :

- (i) Rajasthan
- (ii) 3-D Teaching Aids in Plaster of Paris
- (iii) Birth of Numbers
- (iv) Linear Symmetry
- (v) Biology—The Science of Life
- (vi) Teaching Creative Arts and Crafts
- (vii) Learning from Pictures
- (viii) A.V. Aids in Education
- (ix) Bulletin Boards
- (x) Flannelgraph
- (xi) Using Filmstrips in Teaching

In addition, 1800 prints of the filmstrip "Mahatma Gandhi—His Life and Message" were also prepared.

### *Charts*

- (i) 21 flip charts on biology entitled "Basic Facts About Life" correlated with section I of the biology textbook of the Council.
- (ii) 20 charts in colour for the teaching of magnet and magnetism for use in higher secondary schools.

### *Films*

The Council produced a 16 mm film entitled "Science is Doing—A New Approach to Primary Science Teaching."

### *Study Packages*

- (a) A Study package on "Eskimos" was produced.
- (b) The following study packages are at the various stages of production :
  - (i) Some Leafless Plants
  - (ii) Life History of Golden Colour Butterfly
  - (iii) The Story of Delhi

### *Picture Packages*

The production of picture packages on the tribal people of India was started. These picture packages will be used in schools for imparting instruction as also for promoting national integration.

### *Slide Kits*

The Council started work on the production of slide kits in the various subjects in collaboration with UNICEF Experts. The first kit which was produced during the year under report is on "Teaching Elementary Physics Today" and consists of 50 slides.

### *Other Materials*

The following materials were produced during the period under report:

- (i) Folding Stand for Biology Charts and Publications
- (ii) Models for Biology Kit
- (iii) Display Boards
- (iv) Final Drawings for Picture Packages on Magnet and Magnetism
- (v) Dioramas—6
- (vi) Graphic Strips—2
- (vii) Working Models—5
- (viii) Teaching Machine
- (ix) History Charts Panel—5
- (x) Book Cover for Textbook Illustration—1
- (xi) Maps for Filmstrip on Jammu & Kashmir—2
- (xii) Cover Design for Puppetry Book—1
- (xiii) Designs for Dioramas, Posters, Charts for Training Programmes in Regional College of Education, Mysore-30
- (xiv) Cover Design for Directory of A.V. Materials and Equipment—1
- (xv) Filmstrip Box—1
- (xvi) Faces for Puppets—4
- (xvii) Filmstrip Shooting Board—1
- (xviii) A Study Kit on Jammu & Kashmir
- (xix) A Day Light Screen

## APPENDIX 5

### *Crash Programme for Evaluation of School Textbooks*

#### 1. Introduction

The Government of India had been receiving from time to time complaints that several textbooks prescribed for schools in the different parts of India had material prejudicial to the interests of national integration. In view of such complaints, the Government of India in the Ministry of Education set up a Committee under the Chairmanship of Prof. K. G. Saiyidain in September, 1966 to examine the issue and advise the Government on the principles to be adopted in the preparation and assessment of textbooks suitable for a secular State. This Committee examined witnesses, studied the complaints and submitted a report to the Government. The report was concerned mainly with policies and principles and the study of the complaints actually received.

The question of material harmful to national integration in school textbooks assumed greater importance in view of the discussions in Parliament, in the National Integration Council and elsewhere. Hence, examining the problem in its entirety came to the forefront before the Government of India.

In March, 1970 the question was raised whether all textbooks likely to contain material harmful to the interests of national integration could be scrutinised and the States concerned advised in the matter. By this time, the National Board of School Textbooks had already been established. At its first meeting held in April, 1969, it had recommended that the evaluation of school textbooks prescribed in a State should be conducted primarily by the state itself. In view of this, the question of evaluating school textbooks from the standpoint of national intergration was placed as an item before the second meeting of the National Board of School Textbooks held in May 1970. The National Board of School Textbooks has on its membership all the Ministers of Education in the States. Many of them attended the meeting. In the case of States for which the Education Ministers could not attend the meeting, official representatives had been deputed. At this second meeting of the National Board of School Textbooks it was unanimously resolved that all textbooks prescribed or recommended for use in the schools in all the States and Union Territories should be evaluated from the standpoint of national integration.

On the basis of the above mentioned recommendation of the National Board of School Textbooks and on the basis of the discussions in Parliament, the Government of India decided to take action. A reference was made to the National Council of Educational Research and Training and the Council informed the Government of India that it could undertake this work as a Crash Programme and complete the assignment in a period of about 6 months. Consequently, through a D.O. letter No. F. 11-41/70-S. 4 dated 27th May, 1970 from Shri T. R. Jayaraman, Joint Secretary, Ministry of Education and Youth Services, the National Council of Educational Research and Training was asked to undertake the work.

## 2. The Programme

The Council examined the problem from various points of view. It came to the conclusion that in controversial subjects like history or languages where two persons can come to two different conclusions even on the basis of same facts, it is necessary that an evaluation should be carried out by three independent individuals and checked through three independent organisations. Further, the Council felt that standardized procedures should be evolved for evaluation in order to avoid ambiguity and difficulties of handling the data. Therefore, the Council prepared a Screening Record Booklet with an elaborate set of instructions put in as unambiguous way as possible. The Council further examined the procedures to be adopted. It was felt that the most appropriate assessors would be the school teachers at different levels who are actually teaching the subjects. It was also felt that the work load on the school teacher has to be limited to a certain maximum in order to get a proper assessment. Taking decisions on these points into account, a proper time-schedule for undertaking the work was also prepared.

On the basis of the information so supplied, the Ministry of Education, Government of India, informed all the State Governments that this work is being undertaken and that the States should also do the work on the lines indicated through its letter No. F. 11-41/70-School 4 of 19th June, 1970. The response to the letter was not quick. Consequently, this item was placed before the meeting of the Education Secretaries in the States on 11th August, 1970. The details of the scheme and the importance of the same was also explained at the meeting. It was then agreed that all the States should and would undertake this work. But, in view of the delay, it was suggested that a revised time schedule be prepared. A revised time schedule was accordingly prepared and sent to the State Governments.

The National Council of Educational Research and Training was entrusted with the task of handling the entire programme and even reimbursing the State Governments on a 100% basis the expenditure incurred by them.

With the concurrence of the Government of India, the Council had decided that only textbooks in subjects like languages, history, civics, moral science and social studies should be examined for the purpose. Even in the subjects mentioned, it was decided that the books written in the major language of the State should be examined in the first phase. Further, since books on grammar and composition were not expected to contain material harmful to national integration, these were not to be taken up for evaluation in the first phase. Even with these limitations, the number of books to be examined was between 2,000 and 3,000. This is a large number when the different languages in which they are written are taken into account.

The decisions as indicated above were also communicated to the State Governments.

The Council wrote to the Directors of Education in the different States and Union Territories and obtained lists of books recommended as textbooks or as general reading books to classes 1 to 11. From such lists, the list of books to be evaluated in the first phase was prepared. The State Governments were advised to undertake evaluation of books after getting their lists checked up with the list prepared by the Council.

The Council obtained copies of books prepared in these subjects in all the States and the Union Territories. The necessary evaluators were appointed and the books together with the Screening Record Booklets were sent to them. In one channel, the book together with the evaluation report was to be received at the National Institute of Education at Delhi, scrutinised by reports of the National Institute of Education and then put up before an Expert Committee. In the second channel, the books together with the evalua-



tion reports had to be checked in the Regional Colleges of Education of the Council and then transmitted to the National Institute of Education at Delhi for being submitted to the Expert Committee. The third channel was the evaluation through the States. Each of the States had been requested to forward the books and the evaluation reports to the Council.

The National Institute of Education at Delhi and the Regional Colleges of Education at Ajmer, Bhopal, Bhubaneswar and Mysore which are under the control of the Council, could complete this work according to schedule and all the reports became available in the latter half of November, 1970.

The President of the Council appointed an Expert Committee consisting of the following to examine the material received and make a report thereon :

1. Shri G. Parthasarathi  
Vice-Chancellor  
Jawaharlal Nehru University  
New Delhi
2. Shri K. Kurvila Jacob  
Principal  
The Cathedral and John Connon School  
6, Outram Road  
Bombay
3. Dr. Trilochan Singh  
Retired D.P.L.  
Chandigarh
4. Smt. Sajada Zamir Ahmed  
Joint Director, Women's Education  
J & K Government  
Jammu

Dr. Amrik Singh, Secretary, Inter-University Board, India was, later appointed a member of the Expert Committee. The main purpose of this appointment was to see that at least four persons could be present for examining the evaluation reports.

The Committee standardised the form of the report to be sent to the State Governments. This report was made fairly elaborate so as to leave no room for ambiguity. It was also decided that the reports as prepared by the Committee, should be sent with a D.O. letter to the Education Secretaries of the State/Union Territory Governments. Since action was a matter of decision by the State Govts. concerned, it was decided that these reports should be treated as confidential and not made available to any one till the final decisions of the State Govts. were known. Even thereafter, it was decided that the release of the information should always be with the concurrence of the State Govt. concerned.

In the reports to the States, the books are classified into four categories as follows :

- (a) Books which should not be used in schools with effect from July, 1971.
- (b) Books which should be revised as per details furnished not later than July, 1972.
- (c) Books in which some indicated portions should be deleted before July, 1972, and
- (d) Books which have no objectionable material and can, therefore, continue to be used.

### **Position in June, 1970**

After an examination of the list of textbooks in the different States and Union Territories and the reports from the Directors of Education, it was found that the following States/Union Territories were either using books recommended in other adjoining States or they had very few books of their own or they had planned to change the books recommended from July, 1971 :

A & N Islands  
Chandigarh  
Dadra & Nagar Haveli  
Goa, Daman & Diu  
Haryana  
Himachal Pradesh  
L.M. & A. Islands  
Nagaland  
N.E.F.A.  
Pondicherry  
Tripura

In view of the above, all the States/Union Territories mentioned above, were advised not to undertake any evaluation work on their own but to consider action on the basis of a report to be prepared by the Council from evaluations through other sources viz., the two NCERT channels and the State evaluation in one of the neighbouring States.

Evaluation reports from some States were received before June, 1971. As and when, they were received, such reports together with the evaluation reports from the NIE channel and the Regional College channel were placed before the Expert Committee. The reports of the Expert Committee were immediately despatched to the States concerned. In this manner, work in the following States/Union Territories has already been completed :

Gujarat  
Kerala  
Nagaland  
Jammu & Kashmir  
Haryana  
Himachal Pradesh  
Manipur  
Mysore  
Bihar  
Delhi  
Orissa

The State evaluation reports for Madhya Pradesh and West Bengal have just been received. The Expert Committee will meet and consider the evaluation reports of these two States from all the three channels and prepare reports shortly. Thereafter, they will be transmitted to the States concerned. But, action for withdrawing books in 1971 can neither be recommended nor implemented. However, action can be taken from the academic session commencing from 1972.

The following States started the work late and they are likely to complete the work by 30th September, 1971 :

Uttar Pradesh  
Rajasthan

Assam  
Andhra Pradesh  
Maharashtra

Thereafter, the Expert Committee will consider the evaluation reports and prepare reports for the States. It is sincerely hoped that the reports would be available with the States for implementation before the commencement of the academic year 1972.

In the work completed so far, about 3-4% of the books were in category (a) i. e. books which have to be withdrawn from being used with effect from July, 1971. Less than 20% of the books were in category (b) i.e., books which have to be revised as per details furnished not later than July, 1972. About 10% of the books were in category (c) i.e., books in which some indicated portions have to be deleted before July, 1972. Over 65% of the books had no objectionable material from the standpoint of national integration.

While examining the books, several glaring deficiencies in our textbooks came to light. It was found that the printing and get-up of several books were not satisfactory. It was also discovered that the textual material in some books was not presented in a way which could appeal to the students. The Expert Committee has thought it fit to make recommendations on several of these points. Such recommendations, apart from being revealing, can prove extremely useful for all the States and Union Territories. They will all be transmitted to National Board of School Textbooks for consideration.

The Crash Programme brought the Council for the first time into intimate contact with teachers in all parts of India as they had to be called upon to undertake a very responsible and, in some cases, a dangerous type of work. The manner in which the teachers had filled up the Screening Records Booklets showed that we have devoted teachers who can do work of a magnificent standard and with care and thoroughness and, at the same time, keep to a time schedule. This is a remarkable asset of which the country can be genuinely proud of.

It is the Crash Programme that brought the staff of the Council into intimate contact with Education Ministers, Education Secretaries, Directors of Education and several other officers in the States. All of them extended the maximum of cooperation to the Council and it is a pleasure to record here the extraordinary promptness and the consideration with which correspondence etc., from the Council were attended to.

The Council is most grateful to all the members of the Expert Committee for having spared their valuable time to undertake the most exacting task of examining the Screening Record Booklets and making an overall assessment of thousands of books.

## APPENDIX 6

### *National Science Talent Search Scheme*

The National Science Talent Search Scheme has been in operation since 1963, when it was started as a pilot project for Delhi only. It was expanded into an all-India scheme in 1964.

The main objective of the scheme is to locate gifted students in science and mathematics at the close of the secondary stage and nurture them for a study of basic sciences up to the Ph.D. level. The scholars selected under the scheme are awarded scholarships and are also given book grant, etc. The rates of scholarship, etc. awarded to scholars selected on the basis of NSTS Examination held up to 1969 were as under:

*Rates of scholarship, etc. in respect of scholars selected on the basis of NSTS Examination held up to 1969.*

	<i>B. Sc. (3 years)</i>	<i>M.Sc. (2 years)</i>	<i>Ph.D. (4 years)</i>
Scholarship	Rs. 100/- p.m.	Rs. 250/- p.m.	Rs. 350/- p.m.
Book award	Rs. 100/- p.a.	Rs. 250/- p.a.	Rs. 500/- p.a.
Tuition fee @ not exceeding	Rs. 15/- p.m.	Rs. 18/- p.m.	Rs. 20/- p.m.

The rates of scholarship, etc. in respect of scholars selected on the basis of NSTS Examination held from 1970 and onward are as follows:

*Revised rates of scholarship, etc. in respect of scholars selected on the basis of NSTS Examination held from 1970 and onward.*

	<i>B.Sc. (3 years)</i>	<i>M.Sc. (2 years)</i>	<i>Ph.D. (4 years)</i>
Scholarship	Rs. 100/- p.m.	Rs. 150/- p.m.	Rs. 250/- p.m. 1st year and Rs. 300/- p.m. subsequent years.
Book award	Rs. 100/- p.a.	Rs. 150/- p.a.	
Contingent grant	—	—	Rs. 1000/- per annum to meet the cost of books, laboratory materials, etc.

The awardees are also exposed to an enriched and accelerated programme through summer institutes and provided with the services of guides during their academic career.

The scheme has benefited a number of students who are pursuing their higher studies in basic sciences and are likely to become our future scientists.

During the year 1970-71, the number of scholars availing the awards were as follows:

Under-graduate awardees	728
Post-graduate awardees	220
Doctoral level awardees	66
	<hr/>
	1,014
	<hr/>

A detailed analysis of the scheme has shown that awardees are not evenly distributed over the whole country. Constant efforts are, therefore, being made to improve the methods and procedures for the selection of scholars and also to improve the follow-up programmes.

In the Science Talent Search Examination held in 1970, over 1,000 candidates qualified for interview. On the basis of interview, 359 candidates were finally selected for these awards. A State-wise distribution of candidates selected for awards from 1968-70 is given in the Annexure.

The Science Talent Search Examination of 1971 was held at about 330 centres throughout the country, where over 8,000 candidates took the test. The examination was conducted in English and also in all the regional languages. The awards for this examination will be made in June, 1971 after the interviews.

Nineteen summer schools of four weeks' duration each were organised during May-June 1970 in different universities for the awardees at the under-graduate level. The post-graduate awardees were placed for their summer programmes at about 25 national laboratories and institutes of advanced studies.

A group of 15 scholars from USA and UK visited the country during September, 1970. A programme was organised for them to meet the local awardees of the National Science Talent Search Scheme for exchanging ideas.

Annexure

NATIONAL SCIENCE TALENT SEARCH SCHOLARSHIPS

Sl. No.	Name of State/ Union Territory	Number of Scholarships Awarded		
		1968	1969	1970
1.	Andhra Pradesh	4	11	3
2.	Assam	4	5	—
3.	Bihar	7	14	6
4.	Gujarat	4	7	3
5.	Haryana	—	1	—
6.	Jammu & Kashmir	—	—	1
7.	Kerala	32	11	13
8.	Madhya Pradesh	9	10	8
9.	Maharashtra	30	35	36
10.	Mysore	30	5	12
11.	Nagaland	—	—	—
12.	Orissa	3	2	2
13.	Punjab	3	2	6
14.	Rajasthan	9	8	20
15.	Tamil Nadu	16	21	28
16.	Uttar Pradesh	46	25	15
17.	West Bengal	55	77	54
18.	Andaman & Nicobar Islands	—	—	—
19.	Chandigarh	1	—	2
20.	Delhi	100	124	149
21.	Goa	—	—	—
22.	Himachal Pradesh	1	1	1
23.	Laccadive, Minicoy & Amindivi Islands	—	—	—
24.	Manipur	1	—	—
25.	N.E.F.A.	—	—	—
26.	Pondicherry	—	—	—
27.	Tripura	—	—	—
<b>Total</b>		<b>355</b>	<b>359</b>	<b>359</b>

## APPENDIX 7

### *National Integration Project*

The Ministry of Education and Youth Services entrusted to the Council the task of fostering national integration among school students through various educational programmes. The over-all objectives of the programmes are as follows :

- (i) To appreciate the diversity of our varied culture and ways of life and the reasons therefor;
- (ii) To understand the contribution of the people living in different regions, speaking different languages and following different religions in the building of our composite Indian culture and thought;
- (iii) To realise that the country's social and economic progress depends upon the cooperation of all people in different regions of India and also upon their balanced development;
- (iv) To respect other individuals and their beliefs irrespective of their place of birth, religion and language;
- (v) To appreciate economic inter-dependence of different parts of the country and several common problems that the country faces in various fields, such as, self-sufficiency in food, improvement of health, multiplying employment opportunities and spread of education, etc.;
- (vi) To feel that the cooperation and effort of every citizen is essential for the attainment of country's ideals enshrined in our Constitution, such as, democracy, secularism, social justice and welfare of the people implied in a Welfare State; and
- (vii) To develop a national perspective so that people willingly accept the responsibility for strengthening forces of national unity.

The major programmes that the Council undertook during the year under report to achieve these objectives are as under :

- (a) Organising inter-State camps for students and teachers and for teachers alone ;
- (b) Initiating 'Our India Project' in selected schools; and
- (c) Preparation and production of suitable materials relevant to the subject for students and teachers.

#### *(a) Organisation of Inter-State Camps*

Sixteen Inter-State student-teacher camps were planned for the year. Seven Camps were held during the months of May and June, 1970. Of these, three camps organised at Panjim, Kasauli and Srinagar were meant for girls, while the remaining four held at Coimbatore, Udaipur, Davangere and Bhubaneswar were meant for boys. In these camps, nearly 500 boys and girls and about 100 teachers coming from 99 schools from different parts of the country participated.

This series of summer camps was followed by another series of 9 camps in winter. Out of these, 8 camps were for students and teachers and one exclusively for teachers on a pilot basis. The main purpose of the teachers' camp was to evolve a follow-up programme to be taken up in schools. The camps were held in November-December, 1970 and January, 1971. Three camps held at Hyderabad, Ernakulam and Baroda

were meant for girls and 5 camps held at Aurangabad, Ferozepur, Allahabad, Patna and Gauhati were meant for boys. In all, about 600 students and 200 teachers participated in these camps.

All the Camp Directors and Organisers were given orientation in providing suitable environment in the camps.

The camps were evaluated using different procedures, such as, reports of the Camp Directors, reactions of the organisers, reactions of the participating teachers and students, assessment of visitors from NCERT, reactions of distinguished visitors to the camps, comments in newspapers, All-India Radio, etc.

The activities in student-teacher camps included learning languages of the fellow-campers; talks, discussions and debates; exhibitions, excursions and visits; activities for the promotion of physical health and safety; cultural and recreational activities, etc.

One Inter-State camp exclusively for teachers was organised at Indore for a period of 10 days from December 23, 1970 to January 1, 1971. Twenty five teachers participated in the camp. The objectives of the camp were as follows :

- (i) improving the programmes of inter-State camps for students and teachers;
- (ii) improving classroom teaching;
- (iii) development of follow-up programmes;
- (iv) development of materials for students.

Four working committees were formed to work out programmes for achieving the above objectives.

**(b) 'Our India Project'**

The scheme of 'Our India Project' forms an integral part of the over-all programme of fostering national integration among school children through educational activities. This project was introduced in 100 selected schools all over the country.

The objectives of the project are : to reinforce the achievements and experiences gained at the inter-State student-teacher camps; (ii) to follow up the work of inter-State student-teacher camps in individual schools; and (iii) to widen the area of impact of inter-State student-teacher camps, by involving all the participating schools in the project for the development of a national perspective among their students.

Keeping in view the above mentioned objectives, only those schools which have participated in the programmes of the inter-State student-teacher camps were selected.

**(c) Preparation and Production of Materials for Use of Students and Teachers**

Under this aspect of the project, it is proposed to bring out useful materials both for students and teachers. Pamphlets namely : (i) Nations and the Schools; and (ii) Rashtriya Ekta Men Kath Putli Natkon Ka Yogdan, were brought out during the year. A large number of national songs were also collected from almost all the language groups of the country. Preparation of a handbook for geography teachers with a view to fostering national integration among the students was taken in hand during 1970-71. The introductory chapters of this handbook are ready to be sent to the prospective writers of teaching units.



## APPENDIX 8

### *International Education Year 1970—Programmes Undertaken by the Council*

The Council organised the following programmes to celebrate the International Education Year 1970 :

#### *1. National Seminar on Primary and Work-oriented Education*

The seminar was held at New Delhi from November 9-11, 1970. It was attended by representatives from the State Departments of Education and University Departments of Education, Union Ministry of Education and Youth Services, Planning Commission, NCERT, voluntary educational organisations and selected primary school teachers.

The seminar took stock of the trends of development in the field of pre-primary education in the country in the sixties and formulated recommendations regarding the programmes and policies to be followed in the seventies, with particular reference to the place of work-experience, science and technology and Gandhian values in primary education. Thirty-two papers presented by various experts on different aspects of pre-primary and primary education were discussed in the seminar.

#### *2. UNESCO Asian Regional Seminar for Leaders of Youth Science Activities*

The seminar was held from December 14 to 18, 1970, at New Delhi and was attended by 16 delegates from 11 Asian countries. It discussed the role of out-of-school science education within the test of development of countries in Asia and related problems.

#### *3. The General Assembly of the International Coordinating Committee for the Presentation of Science and Development of Out-of-school Scientific Activities*

The Government of India hosted the General Assembly of the International Coordinating Committee for the Presentation of Science and the Development of Out-of-School Scientific Activities, which was held at New Delhi from 18th to 21st December, 1970. The NCERT was entrusted with the task of holding the Assembly. Thirty delegates from 22 countries participated in the Assembly. The members of the staff of the Department of Science Education of the Council also participated in the deliberations as delegates, observers and visitors.

#### *4. National Seminar on Mass Media in Education*

On behalf of the Union Ministry of Education and Youth Services, the Department of Teaching Aids of the Council organised at New Delhi a National Seminar on Mass Media in Education from 23rd to 25th March, 1971. Experts in the fields of education and mass media from different parts of the country participated in the seminar. The seminar was also attended by two mass media consultants from the U.S.A.

#### *5. National Seminar on Adult Education in the Seventies*

A National Seminar on Adult Education in the Seventies was organised at Bangalore from September 8-10, 1970. Over 60 delegates from all over the country working in

the field of adult education attended the seminar. The participants discussed the following four issues :

- (i) The mass or campaign approach for the eradication of adult illiteracy— agencies, personnel, material, and finances required therefor;
- (ii) Selective approach and educational literacy—agriculture, industry, commerce and services;
- (iii) Role of voluntary organisations in adult education and follow-up of literacy programmes; and
- (iv) Role of universities and colleges in adult education and follow-up of post-literacy programmes.

*6. Celebration of Comenius Tricentenary*

The Council observed on 16th November, 1970 the 300th death anniversary of John Amos Komensky, better known in the pedagogical world as Comenius. The Department of Teacher Education of the Council brought out a small brochure on Comenius on this occasion, copies of which were distributed to participants. At the function, papers were also read out on the life and works of Comenius. His Excellency, the Ambassador of Czechoslovakia, was the Chief Guest of the function.

## APPENDIX 9

### *Grants to Professional Educational Organisations (1970-71)*

A Sub-Committee of the Programme Advisory Committee which evolved rules and procedures during the year under report recommended that following types of activities of professional educational organisations may be assisted :

- (i) Projects of an experimental or educationally significant nature ;
- (ii) Production of educational literature including educational journals but excluding textbooks; and
- (iii) Organisation of refresher courses, seminars, workshops, conferences of an annual nature and educational exhibitions.

The details in respect of financial assistance provided to the various professional educational organisations during 1970-71 are given hereunder :

<i>S. No.</i>	<i>Name of Professional Educational Organisation</i>	<i>Amount sanctioned (in rupees)</i>
1.	National Parent-Teacher Association of India	4,000.00
2.	Institute of Children's Film	7,000.00
3.	Nehru Experimental Centre	3,000.00
4.	Association of Geography Teachers of India	4,000.00
5.	Association for the Promotion of Science Education	3,500.00
6.	Association of Mathematics Teachers of India	3,400.00
7.	Delhi Association of Mathematics Teachers	800.00
8.	All-India Science Teachers' Association	8,200.00
9.	Bangiya Vijnan Parishad	2,000.00
10.	Indian Association of Teacher Educators	2,400.00
11.	Indian Association for Pre-School Education	1,800.00
	<b>TOTAL</b>	<b>40,100.00</b>

## APPENDIX 10

### *Research Studies, Investigations and Surveys (1970-71)*

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

#### A. STUDIES

##### 1. Test Development

###### 1.01 *Cooperative Test Development Project*

###### (a) *Group Test of Intelligence*

The project aims at developing four group tests of intelligence each with parallel form and partial overlap for the ages 7+ to 9+, 9+ to 11+, 11+ to 13+ and 13+ to 16+. During 1970-71, data for the tryout studies were analysed and items for the final forms of tests selected.

###### (b) *Development of a Vocational Interest Inventory*

The Project aims at developing a vocational interest inventory with scales for a number of occupations in Hindi, Marathi and Kannada. Data for the tryout studies were analysed and items selected for the final forms of inventory. Scales for 10 occupations were also developed.

###### (c) *Further Development of Differential Aptitude Tests Battery*

Some time 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 of the Council. These 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. During the year under report, the work done on the project was as follows :

- (i) Study of the original tests, technical report, original data, etc.;
- (ii) Factor analysis of 18 sub-tests scores on a sub-sample of 236 pupils ;
- (iii) Construction of a test of space perception in three dimensions ;
- (iv) Construction of a test of space perception in two dimensions ;
- (v) Recasting, addition and subtraction tests ;
- (vi) Editing of some of the sub-tests from the original battery, preparation of manuscripts, printing of the test booklets ; and
- (vii) Administration of tests in two States, viz., Uttar Pradesh and Rajasthan.

###### 1.02 *Developing Diagnostic Tests on 'Indices and Surds'*

The general objective of the project is to develop diagnostic tests on indices and surds. The two specific objectives of the project are : (i) to know the difficulties of students in learning this topic ; and (ii) to use the diagnostic tests on indices and surds as specimen for teachers to encourage them develop their own tests for other difficult topics. Preliminary work on the project was started during the year under report.

## 2. Guidance and Counselling

### 2.01 *Teaching of Occupations*

The aim of this project is to study and evaluate different methods of teaching occupations in classes VIII and XI. During 1970-71, literature was prepared on three job families, viz., careers in humanities, careers in science and careers in commerce. Six pamphlets each on orientation to the world of work and self analysis were prepared. Besides, thirty-five posters/charts on specific jobs were also prepared.

### 2.02 *Occupational Information Material in the Series 'Vyavsay Parichaya Mala'*

The aim of the project is to prepare occupational information literature in Hindi suitable for pupils of classes VIII and IX. During the year under report, four pamphlets were prepared under this series and sent for review.

### 2.03 *Preparation of Guidance Literature for Pupils*

The object of the project is to prepare simple guidance literature usable by pupils in secondary schools. Four booklets already prepared, namely, 'what makes you a good reader', 'How you can learn better', 'How to get along with others', and 'How to study effectively' were revised on the basis of comments and suggestions of an outside reviewer.

## 3. Child Development

### 3.01 *Developmental Norms Project for 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. Reports on the adaptive development and personal-social development aspects were prepared and mimeographed. Reports on language development and motor development aspects were also drafted.

### 3.02 *Developmental Norms Project for Children in the Age-Group 5½ to 11 Years*

This project was started during 1969-70. The Broad objective of the project is to understand the development of Indian children from 5½ to 11 years with a view to improving the process of education for this age-range. The focus of the study is on 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. This study has been undertaken as a core study in collaboration with some of the selected universities and other institutions. It is intended that a number of studies overlapping partially with the core study should be conducted in collaboration with the cooperating centres to be set up in various universities. During the year under report, a meeting of the heads of cooperating centres was held to consider the approach and methodology for the project. Developmental aspects to be investigated at different centres were also finalised and the centres started work on tool construction and the pilot studies.

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

This is an on-going study which aims at finding 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 analysis of the data was continued.

#### 4. Adolescence

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

The aim of the study is to prepare a personality inventory for the adolescents. The inventory was finalised during the year for being sent to the press.

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

The objective of this study is to develop a scale to measure adolescents' attitude towards authority. During the year under report, the items were tried out and the data coded and transformed to response sheets. The work on item analysis was also started.

#### 5. Social Psychology

##### 5.01 *Changing Teacher Behaviour through Feed-back*

The objectives of the study are : (1) to identify some ideal classroom behaviours of the teacher for using them for four types of feed-back, viz. teacher self-rating, rating by his peers, pupils' rating of the teacher and rating of the teacher by outside observers; (ii) to try out and establish the most effective feed-back system for changing classroom behaviour of the teacher.

During 1970-71, the post-test data were interpreted qualitatively and quantitatively in relation to the pre-test data collected from 154 teachers and about 2,000 pupils of 16 schools in Bikaner. Based on this, a draft report was prepared.

##### 5.02 *Review of Some Selected Researches in Social Psychology of Education*

The objective of this project is to review some of the selected researches in social psychology of education for use by the teacher-educators. During the year under report, relevant material was abstracted.

##### 5.03 *An Application of Social Reinforcement Technique to Improve Study Behaviour of Students*

The aim of this project is to apply social reinforcement technique to improve study habits of students so that they can show better academic performance. Preliminary work on the study was completed during the year.

##### 5.04 *Teacher-Student Relationship as Perceived by Teachers and Students*

This is a study of inter-personal perception in the classroom setting, which has particular relevance for school education these days because of the increasing communication gap between the faculty and students. During the year under report, pictorial stimuli depicting some representative inter-personal relationships in Indian schools and a check-list were prepared for this study. A pilot study was also carried out with students of different age-groups in one of the schools of Delhi to try out these tools and to conduct observations and interviews.

#### 6. Learning

##### 6.01 *Use of Programmed Learning Techniques in the 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. During the year under report, a programme for Bengali script was developed. Vocabulary list for Bengali to Oriya was also compiled.

#### **6.02 *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 Tamil for Hindi speakers, to be learnt as second language through the filter languages. During the year under report, draft elementary course packages consisting of textbooks, teachers' manual, supplementary readers, dictionary and tapes, each covering about 100 hours of learning time were developed for tryout in schools.

#### **6.03 *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. During the year under report, the available materials in statistics were tried out for adaptation. The results of tryout suggested fresh writing of the materials which was done. Two units of these materials were mimeographed.

#### **6.04 *Modes of Representation Among School Children***

The study aims at determining the age when the transition from the dominance of ikonic representation to symbolic representation takes place. The study also attempts to find out whether such variables as sex, socio-economic status and rural-urban background affect the age of transition. On the basis of preliminary tryout data collected from government higher secondary schools of Delhi, the tools were modified during the year.

#### **6.05 *An Investigation to Study Merits and Demerits of Linear and Mathetic Programmes to Teach Hindi to English knowing Persons***

The objective of this investigation is to develop two self-instructional programmes—one on the linear style and the other on the mathetic style—for teaching Hindi to English knowing persons, covering about 10 hours of teaching material, keeping objectives, criterion tests and contents constant and then study their efficiencies in terms of learning time, achievements grades and economics of developing and administering each type of programme. During the year under report, lists of structure and vocabulary items which are to be taught in the programme were prepared. The first draft lesson was also written.

### **7. Talent**

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

The objectives of the project are: (i) to revise the tests of identification of talent developed during 1963-66; and (ii) to study the inter-relationships between measures of talent and age, sex, social status, personality and school variables. During 1970-71, one series of longitudinal studies of talent was completed and another series was undertaken for the next three years. Scoring data and processing of the completed series of longitudinal studies were also started.

### **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 chief purpose of the project is to relate input variables like organisation and structure of schools and its material facilities; qualifications, experience, motivation and attitudes of

teachers; and socio-economic background of students with achievement in some school subjects. During 1970-71, sample for the main testing was finalised and meetings were held with heads of institutions to ensure main testing and collection of the required data about testees under prescribed conditions.

## 9. History of Education

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

The main objectives of the study are : (i) to trace the social and cultural factors that were at the root of the problem; (ii) to examine as to how these factors developed; and (iii) to evaluate the measures adopted from time to time to tackle the problem. During the year under report, four chapters covering the period up to 1871 were drafted. The work on the remaining chapters was also continued.

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

The study aims at : (i) ascertaining the impact of changing socio-political conditions on the syllabi in different branches of social studies adopted in school curriculum of Delhi; (ii) evaluating the textbooks and reference books for these subjects; (iii) 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 (iv) enquiring whether the educational administrators are aware of the recent demand of bringing changes in this branch of study. Most of the data required for the study were collected during the year.

## 10. Comparative Education

### 10.01 *Pressures of Access to Secondary Education and Choice of Subjects—A Comparative Study*

The main objectives of the study are : (i) to analyse the nature of pressures exerted on the access to secondary education and on the choice of school subjects in different countries; and (ii) to find out the degree of individual success and the freedom of choice. The first phase of the study was completed during the year.

### 10.02 *A Study of Factors Influencing Language Policies in Selected Countries—A Comparative Study*

During the year under report, relevant literature was studied and a research design prepared.

## 11. Philosophy of Education

### *Education as the Process of Development of Character and Personality*

This is a philosophical study of a problem which has generally been studied earlier by psychologists and sociologists. It attempts to offer a valuational description of personality, the real base of personality and the different values which constitute a developed personality. It critically examines some of the important psychological and sociological theories of personality from a philosophical angle. It also offers some practical suggestions to make education an effective process of shaping a developed personality. During the year under report, the relevant literature was studied and some chapters of the report drafted.

## 12. Curriculum and Evaluation

### 12.01 *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 are to be recorded. During the year under report, the speech samples were collected from all the nineteen dialect areas and they were transcribed in the International Phonetic Alphabets. Other items of work planned under the second phase of the project were also completed, such as collection and analysis of data at the three levels of informants and preparation of reports of each dialect area.

**12.02 *Fundamental Research on Language***

A seminar was organised from March 22 to 27, 1971 to collect ideas on the Basic nature of language from the fields of linguistics, philosophy, psychology, mathematics, poetics, neuro-physiology, yoga and religion. About 25 scholars from these fields participated in the seminar and presented papers. These papers are being edited which will be published in the form of a book.

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

Necessary information with regard to various aspects of language instruction at the school stage was collected from all the States and Union Territories except Punjab, Haryana, Himachal Pradesh and Chandigarh. Work on the collection of data from these States/Union Territories was also started. Separate reports in respect of each State/Union Territory for which data were available, were prepared.

**12.04 *A Study to Evaluate Internal Assessment Programme***

A study was planned during the year to evaluate the internal assessment programme in Rajasthan in collaboration with the Rajasthan Board of Secondary Education. This Board has already introduced internal assessment in all the secondary schools in the State.

**12.05 *Analysis of Results of High School/Higher Secondary Examinations Conducted by the State Boards of Secondary Education***

The annual recurrent study of the analysis of results of examinations conducted by the State Boards of Secondary Education was conducted during the year.

**12.06 *Development of Rating Scales for Assessment of Selected Personality Traits of Primary School Pupils of the Age-Group 6-11***

The report of the project was further revised and printed during the year. The tryout of the rating scales was continued in the NIE Experimental School, New Delhi and in some of the selected schools in Indore.

**12.07 *Refinement of the Experimental Cumulative Record Card***

The tryout of the experimental cumulative record card was continued in the NIE Experimental School, New Delhi and in some of the selected primary schools in Allahabad. The needed modifications in the record card were discussed with the teachers involved in the tryout programme. Comments received from different States regarding the feasibility and utility of the experimental record card were also examined.

**12.08 *Location of Different Dimensions (Scholastic and Non-Scholastic) of Primary Pupils' Development and Evolving Criteria of Evaluation***

School situational dimensions of such values as courage, truth, universal love, social service, purity, dignity of manual work, respect for all religions, courtesy, peace and joy were identified. A revised draft of the handbook entitled "Spiritual Moral and Social Values in Primary Schools" was also prepared.

**12.09 *Improvement of M.Ed. Educational Psychology Syllabus***

A seminar was organised in which teacher educators participated and studied the

existing syllabi in educational psychology prescribed by various universities for the M.Ed. course. Based on the study of the syllabi, the participants prepared model syllabi for the twelve compulsory papers and four optional papers. List of experiments and the reading list to accompany the syllabi were also prepared.

#### 12.10 *Children's Literature Evaluation Tool (CLET)*

The Ministry of Education and Youth Services was conducting a National Prize Competition for children's literature for some time past. The Ministry has conducted 15 such competitions so far. The scheme has now been transferred to the NCERT for its implementation. As a step towards the implementation of the 16th competition, a tool for evaluation was developed during 1970-71. This tool contains the evaluative criteria and weightage to be given to each criterion. The tool has been supplied to the States for use in the evaluation of books for this competition.

### 13. Teacher Education

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

During the year under report, two seminars were organised for teacher-educators, one each for the southern and western regions. In these seminars, the participants were helped to plan their research projects and discuss them with one another and also with the resource persons with a view to improving their designs, methodology, etc.

#### 13.02 *Improvement of Admission Procedures in Teacher Training Institutions*

All teacher training institutions in the country were requested to send a detailed note on their admission procedures. Based on the information received from these institutions, reports were prepared for each State separately for elementary and secondary levels. Case studies of two secondary colleges of education and one elementary teacher training institute were also conducted. Meetings of working groups comprising members of selected training institutions and several members of the Department of Teacher Education of NIE, were held which considered the reports of case studies and the reports of each State with a view to suggesting improved procedures of admission to teacher training institutions. The reports of the meetings of the working groups are proposed to be cyclostyled for circulation to teacher training institutions.

#### 13.03 *An Intensive Study of Actual Innovative School Practices and the Extent of Their Utilisation in Professional Training of Teachers*

A proforma regarding innovative school practices was sent to 500 teachers who had won the national award. Replies were received from about 125 of them which were analysed. Another questionnaire was issued to the principals of higher secondary schools of the Union Territory of Delhi and of Udaipur and Kota Divisions of Rajasthan. The purpose was to make a study of the innovations carried out by these schools. On-the-spot study was also made of innovative practices in the schools of Udaipur and Kota Divisions of Rajasthan and in some schools of Bombay. Besides, a study of the use of innovative school practices in the professional training of teachers was also made in two colleges of education in Rajasthan.

#### 13.04 *Development of an Instrument for Grading of Training Colleges*

The study aims at developing an instrument for grading teacher training colleges according to their level of efficiency. During the year under report, a scheme of work for the study was prepared. The criteria for different items of the instrument were also framed. Besides, sample items on one aspect of the instrument, i.e. tutorials, were drawn up.

**13.05 *A Review of M.Ed. Dissertations relating to the Fields of Teacher Education***

Lists of M.Ed. dissertations on teacher education were obtained from various universities. Abstracts of about 200 of these dissertations were available which were analysed area-wise. Based on this analysis, the draft report was prepared.

**13.06 *Other Studies***

Besides, the following studies were also undertaken during 1970-71 in the area of teacher education :

- (i) A comparative Study of 4-Year and 1-Year Pattern of Teacher Education
- (ii) A Study of Socio-Economic Background of Students admitted to the Regional College of Education, Bhubaneswar from 1963 to 1970
- (iii) A Study of Admission Procedure followed in the Regional College of Education, Bhubaneswar with a view to Improving its Predictive Efficiency
- (iv) Evaluation of Practice Teaching in Teacher Training Institutions.

**14. *Primary Education***

***A Pilot Project on Ungraded School System to Reduce Wastage and Stagnation at the Primary Stage***

A pilot project on the the 'ungraded school system' was undertaken in ten schools of Loni Block in Meerut District of Uttar Pradesh in order to study its impact on reducing wastage and stagnation at the primary stage. As a part of the programme, headmasters and assistant teachers of the participating schools were given orientation to the basic ideas underlying the ungraded school system. A sample teaching unit in Hindi was improved by the participants and they also developed one teaching unit in each of the subjects namely, mathematics, social studies and general science. In another workshop organised under this project, 40 teaching units in Hindi for ungraded schools based on the syllabus and textbooks of classes I and II of Uttar Pradesh were prepared. Besides, 32 teaching units and assignments and teaching aids in social studies covering the syllabus for classes I and II of U. P. and 20 teaching units and assignments and teaching aids in mathematics covering syllabus for classes I to VII of the same State were also prepared in two other workshops as a part of this project.

**15. *Tribal Education***

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

The report of the study was drafted during the year.

**15.02 *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. During the year under report, the field work of the project was completed and also work regarding tabulation of the data taken up.

**15.03 *Wastage and Stagnation among Tribal Students in Primary and Middle Schools***

A proforma for collecting the data for this study was developed.

**15.04 *Aspirations and Motives of Tribal Youth***

The research design of the project was prepared.

**15.05 *Education and Socio-Economic Mobility in Tribal Areas***

The research design of the study was prepared.

## 16. Audio-Visual Education

### 15.06 *Evaluation of Exhibition on 'Education in India Today'*

Based on the comments of the visiting public, which were analysed, the first draft of the report was prepared last year. During 1970-71, the report was finalised.

## 17. Textbook Preparation and Evaluation

### 17.01 *A Study on the Position of Nationalised Textbooks*

A study was undertaken to ascertain the latest position regarding the number and nature of nationalised textbooks and such other related matters. A questionnaire in this regard was sent to different States and Union Territories. Information was received from most of the States and its analysis was also started.

### 17.02 *A Study on the Position of Textbooks in the Minority Language Groups in Different States*

This study was undertaken in pursuance of a recommendation made to this effect at the Second Meeting of the National Board of School Textbooks. In this regard, a design was prepared and a questionnaire issued to the Directorates of Education, Textbook Agencies and Boards of Secondary Education all over the country. The data received from several States were examined and collated.

### 17.03 *A Study on Selection and Presentation of Content in History*

History textbooks today have come up for serious criticism with regard to their role in creating feelings prejudicial to national integration. It was, therefore, decided to convene a seminar in which professional historians, teacher educators and working teachers were to identify the basic issues which would in future form a framework for further discussion and investigation of the problem. The seminar was held in March, 1971 and its findings are being compiled.

### 17.04 *Principles and Procedures of Preparation and Evaluation of Textbooks in Different School Subjects*

Work on developing basic principles and procedures for preparation and evaluation of textbooks in civics and general science was initiated during the year under report. Similar materials developed during 1969-70 in mother-tongue, social studies, history, geography, mathematics, physics, biology, English, etc. were finalised in the light of comments and other information obtained on the basis of their experimental use.

## 18. Adult Education

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

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

### 18.02 *A Pilot Evaluation Study of Functional Literacy in Lucknow*

The report of the study was finalised during the year.

### 18.03 *Compilation of a Directory of Voluntary Organisations/Key Personnel engaged in Social/Adult Education in India*

Data received from 48 voluntary organisations engaged in Social/Adult Education in the country were compiled.

A schedule was mailed to key personnel of Adult/Social Education to collect the required information.

#### 18.04 *Evaluation of Functional Literacy Programme*

This project is proposed to be undertaken in 8 districts, namely, Sangrur (Punjab), Delhi (Delhi), Darbhanga (Bihar), Jalgaon (Maharashtra), Bellary (Mysore), Tanjavur (Tamil Nadu), Burdwan (West Bengal) and Sambalpur (Orissa). During the year under report, preliminary work was started on the project.

#### 19. Science Education

##### *A Study of Science Teaching Facilities in the High Schools of Orissa*

The study aims at finding out facilities provided for the teaching of science in the high schools of Orissa such as, availability of qualified teachers, equipment for laboratories, etc. Data for the study were collected during the year.

#### 20. Agricultural Education

##### 20.01 *A Pilot Project on Vocational Work-Experience for Farm Youth*

The study was conducted in about a dozen higher secondary schools spread over West Bengal and Bihar.

##### 20.02 *A Study of the Teaching of Agriculture in Secondary Training Colleges of the Eastern Region*

The objective of the study is to find out the present position with regard to the provision of facilities for the teaching of agriculture in secondary training colleges of the eastern region. The study also aims at examining the quality of teaching of agriculture in these colleges. The study was completed during the year under report and based on its findings, a plan was drawn up for an intensive training of teacher educators in the teaching of agriculture.

#### 21. Educational Finance

##### *A Study of Costs of Education (NIE-HEW Projects 007)*

The draft report of the study was revised in the light of comments of an outside expert. The revised report was sent to the members of the study team for finalisation.

### B. EDUCATIONAL SURVEYS

#### 1. 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. The sample includes one community development block and an average town, one medium-sized town and one large city in each State, whereas in the Union Territories, only the capital of the Territory is taken. While all high/higher secondary schools and intermediate colleges within the municipal limits or other administrative jurisdiction of the towns and blocks are covered, in the cities only 5% schools within the municipal committee/corporation limits are taken. During the year under report, the analysis of the data was completed and the draft reports on various aspects were nearing completion.

## **2. Sample Survey of Facilities Available in Secondary Schools for Academic Growth of Pupils**

This survey aims at collecting information on such aspects as facilities for library and reading room, laboratories, workshops, audio-visual aids, subject clubs and associations, guidance services, mid-day meals, school health service, etc. Information on these aspects is being collected through structured questionnaires from all the States and Union Territories except A & N and L.M. & A Islands. The sample for the survey is confined to 3% schools in each State and all schools located at the headquarters of each Union Territory.

## **3. Survey of School Textbooks in India**

This survey was undertaken in the beginning of 1969 to study the following aspects of textbooks at all stages of school education :

- (i) Agencies involved in producing, prescribing, approving and recommending school textbooks ;
- (ii) Constitution, composition and functions of these agencies ;
- (iii) Policies and Procedures adopted in each State in respect of different categories of school textbooks with particular reference to the preparation and review of manuscripts, and printing and distribution of textbooks ;
- (iv) The position of textbooks prescribed in schools during 1968-69 ; and
- (v) Authors of school textbooks.

On the basis of the information collected, reports were prepared for each State and Union Territory during 1969-70. The draft of an all-India report, which was prepared last year, was finalised during 1970-71 and sent for printing.

## **4. Master Sample List of Schools in India**

This is a continuing project of the Council. It was taken up with the purpose of building up a sampling frame of schools in India, which could be used for sampling schools for all-India surveys and research studies in education. The Master Sample has been mimeographed.

## **5. Third National Survey of Secondary Teacher Education**

A draft questionnaire for conducting the Third National Survey of Secondary Teacher Education was finalised and sent for printing.

## **6. National Survey of Elementary Teacher Education**

A draft questionnaire for the National Survey of Elementary Teacher Education was prepared and sent to the State Institutes of Education for comments. This was followed by an orientation conference which was organised for the SIE officers who would be involved in the collection of data for the survey. The questionnaire and the analysis sheets were finalised in the conference.

## **7. A Survey of Availability, Use and Need of Audio-Visual Equipment and Material in Secondary Schools of Delhi**

A survey of availability, use and need of audio-visual equipment and material in secondary schools of Delhi was undertaken during the year. The questionnaire was finalised and mailed to all the higher secondary schools of Delhi.

**8. A Survey of Practices regarding Preparation, Production and Distribution of Textbooks in Different States**

A Survey was undertaken to collect factual information about practices obtaining in different States with regard to the preparation, production and distribution of school textbooks. The information was analysed and a brochure entitled "Procedures of Preparation, Production and Distribution of School Textbooks" was brought out during the year under report.

**9. A Survey of Parent-Teacher Associations in Delhi**

A survey of parent-teacher associations in Delhi was undertaken during the year. The purpose of the survey was to find out the number of parent-teacher associations, their functions and membership, frequency of their meetings, etc.

**10. Other Surveys**

The following surveys were conducted during the preceding years. Although analysis of data and draft reports of these surveys were completed earlier, the final reports could be brought out only during 1970-71 :

- (a) Survey of Unrecognised Institutions Offering Pre-School/Elementary Education in the Twin Cities of Hyderabad-Secunderabad and Delhi
- (b) Survey of Parent-Teacher Associations in India
- (c) Survey of Women Teachers in Rural Areas of Bhilwara, Jaipur and Bikaner Districts of Rajasthan.

## APPENDIX 11

### *Grant-in-Aid for Approved Research Projects (GARP) (1970-71)*

Under this scheme, several research projects were approved by the Council during 1970-71. 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 1970-71**

Sl. No.	Institutions/Individuals	Title of the Project	Duration	Total Outlay Approved (in rupees)
1	2	3	4	5
1.	S.I.T.U. Council of Educational Research, 34/1 Ramakrishna Mutt Road, Madras-28.	Preparation of Materials to Develop Readiness in children of Pre-school Age	1½ years	₹17,700.00
2.	G.H.G. Khalsa College of Education, Guruser Sadhar (Ludhiana)	Follow-up of the Alumni of Training Colleges, Post-College Employment and Adjustment	2 years	9,200.00
3.	Vidya Bhavan G.S. Teachers College, Udaipur	Developing a Realistic Programme of Teacher Education on the Basis of an Analysis of their Professional Jobs	2 years	21,400.00
4.	Thiagarajar College of Preceptors, Madurai	Construction of a Diagnostic Test in Algebra for Standard IX in the Schools of Madurai Town	2 years	10,300.00
5.	Department of Psychology, Osmania University, Hyderabad	A Comparison of Programmed Learning with Conventional Learning Techniques in Teaching Languages to Children	1½ years	13,600.00
6.	Department of Philosophy, Osmania University, Hyderabad	Education as a Medium of Integration of Values and Effecting Value Changes	2½ years	18,800.00
7.	Dr. V.P. Sharma, Lecturer, University Teaching Department of Psychology, Ravishankar University, Raipur	Publication of the Ph.D. Thesis "Evaluation of Attainment in Federal Hindi at the Secondary School Level in West Maharashtra"	1 year	1,000.00
8.	Dr. M. Ghulam Rasool, 176, Narsinghar, Srinagar, Jammu & Kashmir	Publication of the Ph.D. Thesis "The Educational Aspect of the Thought of Maulana Azad"	1 year	1,000.00
			Total	93,000.00

## APPENDIX 12

### *Training Programmes*

As in the previous years, during 1970-71 the Council gave its best attention to the pre-service and in-service education of teachers and teacher educators through its various training programmes as mentioned below :

#### 1. Pre-Service Education

##### 1.01 *Central Institute of Education*

During the year under report, the Central Institute of Education, Delhi, continued with its full-time course for B.Ed. degree and full-time and part-time evening courses for M.Ed. degree of the University of Delhi. No fresh admissions were, however, made to the B.Ed. correspondence course as it was decided to discontinue this course from the year 1970-71. The Institute also continued with its Ph.D. programme and two scholars, S/Shri N.A. Ansari and K.L. Pandit were declared eligible for award of this degree by the University of Delhi. Examination results for 1970-71 in respect of the CIE may be seen in Annexure I.

##### 1.02 *Regional Colleges of Education*

The 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 4-years integrated courses after higher secondary, combining teaching in different subject areas and pedagogical training. The 4-year courses in technology and commerce were abolished from 1968-69 and 1970-71 respectively. During the year under report, 4-year integrated courses in science and English were continued. Revised courses in these subjects are being formulated which will be introduced shortly. All the four colleges also organise a special one-year B.Ed. course for graduate teachers in commerce and science. The Regional College of Education, Ajmer, continued during the year under report one-year B.Ed. course started in 1969-70 for teachers in English and Hindi on the pattern of the other one-year B.Ed. programmes for graduate teachers. M.Ed. course at the Regional Colleges of Education, Bhopal and Bhubaneswar, was also continued. One-year B.Ed. course in agriculture continued to be offered at the Regional Colleges of Education, Ajmer and Bhopal. The Regional College of Education, Bhopal, added one-year B.Ed. course in humanities from July, 1970. The total enrolment in the four-year courses of all the Regional Colleges of Education during the academic session 1970-71 was 1,538 which comprised 918 in science, 70 in technology, 375 in English and 175 in commerce. The number of trainees admitted to one-year course was 516, comprising 74 in commerce, 306 in science, 48 in agriculture and 88 in languages. The number of students admitted to the M.Ed. course at the Regional College of Education, Bhopal and Bhubaneswar, was 8 and 10 respectively.

With a view to clearing the backlog of untrained teachers in high/higher secondary schools in the country, the Council has been organising summer school-cum-correspondence courses leading to B.Ed. degree at its four Regional Colleges of Education. This course includes full-time intensive training during the two summer vacations

(4 months) and instruction through correspondence during the ten months' period between the two summer vacations. The total enrolment in this course at the four colleges during 1970-71 was 1,764. Examination results for 1970-71 in respect of each Regional College are given in Annexure II.

## 2. In-service Education

A brief description of the work done by the Council during the year under report in offering short-term and long-term in-service courses to teachers and other educational workers connected with school education is given below :

### 2.01 *Summer Institutes in Science*

To keep the secondary school teachers of science and mathematics abreast of the latest developments in their subject areas, the NCERT in collaboration with the University Grants Commission has been organising summer institutes during the last few years. These summer institutes are generally of 5-6 weeks' duration and are held under the chairmanship of University professors with the help of resource personnel from universities/colleges. Till 1970, 353 summer institutes in science and mathematics had been organised which were attended by over 13,700 teachers.

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

During 1970-71, five summer institutes in social sciences and humanities were organised. Two of these were meant for teacher educators from elementary teacher training institutions in the States of eastern and southern regions, while the participants for the other three comprised teacher educators from secondary training colleges and University Departments of Education. The subjects of the institutes were as follows :

- (i) Principles and Problems of Primary Education
- (ii) } (two institutes were organised on this subject)
- (iii) Contemporary problems of Indian Education
- (vi) Learning, Motivation and Group Processes
- (v) Linguistics and Language Teaching.

### 2.3 *Autumn Institute on Child Psychology*

An autumn institute on child psychology was conducted in September, 1970 at the Department of psychology, Osmania University, Hyderabad. The participants were teacher educators from pre-primary and primary teacher training centres of different States.

### 2.04 *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 the State Bureaus of Guidance and schools. Some teacher educators teaching guidance in training colleges also benefitted from the course. Twelve trainees participated in the course ; two each from the States of Punjab and Uttar Pradesh, three from Delhi and one each from Gujarat, Madhya Pradesh, Mysore, West Bengal and Tripura.

### 2.05 *Other Short-Term Training Programmes*

A number of other short-duration training programmes were also organised in different fields. A brief report on these programmes is given below :

- (i) An orientation course in programmed learning was arranged in November, 1970 which was attended by 33 participants from five districts of the Punjab State.
- (ii) An orientation programme in the area of guidance was organised for District Education Officers of western zone in March, 1970. The aim of the programme

was to create a climate favourable to the development of guidance in schools. Sixteen District Education Officers participated in the programme.

(iii) The fifth training course of 10 days' duration was organised during May, 1970 for the supervisors in functional literacy. The course was attended by sixteen supervisors from the States of Andhra Pradesh, Gujarat, and Uttar Pradesh.

(iv) Two two-week training courses were conducted during June-July, 1970 for adult literacy instructors of S.S.B. of the Directorate General of Security under the Cabinet Secretariat, Government of India. The courses were attended by two batches of 20 instructors each.

(v) Three training courses were organised during the year for the 6th 7th and 8th batches of supervisors in functional literacy under the Farmers' Education and Functional Literacy Project. The 6th batch consisted of 18 supervisors from the States of Madhya Pradesh and Punjab. The 7th batch had 23 participants from Gujarat, Madhya Pradesh and Uttar Pradesh, while the 8th batch had 9 participants from Delhi and Himachal Pradesh.

(vi) A three-week orientation course was organised during May-June 1970 for a select group of principals of higher secondary schools and Education Officers of Delhi. The various Departments of National Institute of Education collaborated in running this course.

(vii) A two-week training course in audio-visual education was conducted during April-May, 1970. Twenty-nine lecturers from secondary teacher training colleges of southern zone attended the course.

(viii) A two-week training course in techniques and procedures of an educational film library was organised during the year which was attended by twenty-four participants representing the State Departments of Education, Regional Colleges of Education, etc.

(ix) A one-week training course in audio-visual education was organised in November, 1970 for the officers of the National Defence Academy. Thirty-three officers attended the course.

(x) An all-India one-month technical training course was organised from 16.11.70 to 11.12.70 which was attended by fourteen participants representing the State Departments of Education and State Institutes of Education. The training included demonstrations, screening of films and filmstrips, practical sessions in the operation, maintenance and repair of different audio-visual gadgets, construction of working models, educational field trips, etc.

(xi) An all-India six-week training course in projected aids was conducted in January-February, 1971 which was attended by eleven participants from all over India representing the State Education Departments, State Institutes of Education and Audio-Visual Education Departments.

(xii) A short-term training course in the teaching of commerce was organised in August, 1970 for the teachers of secondary schools of eastern region which was attended by twenty participants, one from Assam, five each from West Bengal and Tripura and nine from Bihar.

(xiii) A 10-day programme in phonetics and reading was organised for the teachers of English of Assam State during October, 1970. Eighteen participants from different districts of Assam attended the course.

(xiv) A short-term training course was conducted for craft instructors of Orissa during the Christmas vacation. The main objective of the course was to improve the teaching of workshop sciences at the level of craft instructors.

(xv) A 10-day programme for agriculture teachers from the States of Bihar and West Bengal was conducted during the Christmas vacation.

(xvi) A short-term course in audio-visual education for lecturers of Colleges of Education in the southern region was held during April-May, 1970. Twenty-nine lecturers attended the course. Training was imparted in the preparation of different kinds of audio-visual materials and in the operation of different kinds of equipment. Fifty-one graphic aids were also prepared.

(xvii) A three-week training course in work-experience was organised in June, 1970 for teacher educators from secondary training colleges of Mysore State. Fifteen teacher educators attended the course.

(xviii) A 10-day training course in work-experience was organised for primary teacher educators of Mysore State during January, 1971. Eight teacher-educators were provided training.

(xix) A 4-week intensive training course in content and methodology of teaching English was conducted during May, 1970 for the Alumni of Regional College of Education, Mysore. Thirty Alumni attended the course.

(xx) Two orientation programmes were organised during November, 1970 and January, 1971, for the headmasters and teachers of cooperating schools of Regional College of Education, Mysore, to enable them to provide effective guidance to the student-teachers of that college and to assess them objectively during the internship-in-teaching programme.

(xxi) A 10-day course in work-experience was conducted in August, 1970 at the request of the Joint Director of Public Instruction, Mysore for the secondary school teachers of Mandya District. Twenty-seven teachers attended the course and were imparted training in horticulture, wood craft and sheet metal work.

(xxii) A one-week programme in the teaching of new mathematics was organised in May, 1970 at the instance of the Delhi Municipal Corporation for the teachers teaching mathematics at the middle school stage.

(xxiii) A three-week programme was organised in June-July, 1970 in collaboration with the Directorate of Education, Delhi to train career masters for the higher secondary schools of Delhi. The programme was attended by fifty-five participants.

(xxiv) Two 10-day programmes were conducted in September and October, 1970 to train the sponsors of science clubs for primary schools of the Municipal Corporation of Delhi. Ninety-three teachers were imparted the requisite training in these programmes.

(xxv) A one-week programme in evaluation was organised in January, 1971 at the request of the Municipal Corporation of Delhi to train the headmasters and supervisors of primary schools in the writing of objective-based test items in various school subjects.

(xxvi) A short-term refresher course in the teaching of English was organised in December, 1970 at Bhopal in collaboration with the Kendriya Vidyalaya Sangathan. The course was conducted for the benefit of the English teachers working in Central Schools.

(xxvii) An orientation programme for the authors and evaluators of history textbooks at the secondary stage was organised in Gujarat during May, 1970. It was attended by twenty-three authors and evaluators. A report containing summaries of discussions and tools for evaluation of history textbooks was also brought out on this occasion.

(xxviii) An orientation programme in the teaching of social studies was organised at the request of the Delhi Municipal Corporation for primary school teachers.

(xxix) Two orientation-cum-training programmes, each of 10 days' duration were organised during October-November, 1970 for key personnel from different States who could not participate in the programmes of the previous year. The participants were introduced to the new approach and content of curricular materials developed for teaching science at the primary and middle school stages. They were also familiarised with the kits and equipment for teaching science at these two stages. These orientation-cum-training programmes formed a part of the UNESCO-UNICEF-assisted pilot project for the improvement of science teaching. Nine key personnel from five States participated in the programmes.

**Annexure I**

**EXAMINATION RESULTS FOR 1970-71 IN RESPECT OF CENTRAL INSTITUTE OF  
EDUCATION, DELHI**

Course	Enrol- ment	No. of dropouts	No. of appea- red	No. passed	No. failed	Com- part- ment	Pass %	Distinc- tions
B. Ed. Regular	143	9	134	132	—	2	98.5	5
B.Ed. Correspondence	139	8	131	95	19	17	72.5	4
M.Ed. Regular	20	1	19	19	—	—	100.0	4
M.Ed. Part-time Evening	16	2	14	12	2	—	85.7	2

**Annexure II**

**EXAMINATION RESULTS FOR 1970-71 IN RESPECT OF REGIONAL COLLEGE OF  
EDUCATION, AJMER**

Course	Enrol- ment	No. of dropouts	No. of appea- red	No. passed	No. failed	Compart- ment	Pass %
<b>Four Year Technology</b>							
I year	—	—	—	—	—	—	—
II year	—	—	—	—	—	—	—
III year	4	—	4	1	—	3	25.0
Final year	15	—	15	15	—	—	100.0
<b>Four Year Science</b>							
I year	43	—	43	31	2	10	72.9
II year	54	2	52	34	4	14	65.9
III year	63	4	*59	48	—	10	81.4
IV year	49	—	*49	43	1	4	87.8
<b>One Year B.Ed.</b>							
(i) Science	85	1	*84	75	8	—	89.3
(ii) Commerce	32	—	32	26	6	—	81.3
(iii) Agriculture	32	1	31	28	3	—	90.3
(iv) Languages	72	—	72	65	7	—	90.3

\*Result of 1 candidate withheld.

**EXAMINATION RESULTS FOR 1970-71 IN RESPECT OF REGIONAL COLLEGE OF  
EDUCATION, MYSORE**

Course	Enrol- ment	No. of dropouts	No. appea- red	No. passed	No. failed	Compart- ment	Pass %
<b>Four Year Technology</b>							
Final year	30	—	30	24	6	—	80.0
<b>Four-Year Science</b>							
I year	64	6	58	38	5	15	65.5
II year	55	—	55	27	5	23	49.9
III year	50	—	50	37	4	9	74.0
IV year	60	—	60	31	29	—	51.0
<b>Four-Year English</b>							
I year	41	5	36	28	3	5	77.8
II year	34	2	32	22	1	9	68.8
III year	26	—	26(1)	22	1(1)	3	84.6
IV year	34	—	34	27	7	—	79.0
<b>Four-Year Commerce</b>							
II year	33	1	32	9	8	15	28.1
III year	28	1	27	16	2	9	59.3
IV year	38	—	38	25	13	—	65.8
<b>One-Year B.Ed.</b>							
(i) Science	100	9	91	87	4	—	95.0
(ii) Commerce	10	—	10	10	—	—	100.0



**EXAMINATION RESULTS FOR 1970-71 IN RESPECT OF REGIONAL COLLEGE OF  
EDUCATION, BHUBANESWAR**

<b>Course</b>	<b>Enrol- ment</b>	<b>No. of dropouts</b>	<b>No. of appea- red</b>	<b>No. passed</b>	<b>No. failed</b>	<b>Compart- ment</b>	<b>Pass %</b>
<b>Four-Year Technology</b>							
Final year	8	—	8	8	—	—	100.0
<b>Four-Year Science</b>							
I year	73	11	62	52	—	10	83.9
II year	85	3	82	72	—	10	87.8
III year	71	—	*71	59	—	11	83.9
IV year	43	—	43	42	—	1	97.7
<b>Four-Year English</b>							
I year	31	3	28	27	—	1	96.4
II year	39	—	39	38	—	1	97.4
III year	39	—	39	35	—	4	89.7
IV year	29	—	29	28	—	1	96.5
<b>Four-Year Commerce</b>							
I year							
II year							
III year							
IV year							
<b>One-Year B.Ed.</b>							
(i) Science	106	6	100	98	2	—	98.0
(ii) Commerce	13	2	11	10	1	—	91.0
(iii) Agriculture	—	—	—	—	—	—	—

\*One candidate expelled.

**EXAMINATION RESULTS FOR 1970-71 IN RESPECT OF REGIONAL COLLEGE OF  
EDUCATION, BHOPAL**

Course	Enrolment	No. of dropouts	No. appeared	No. passed	No. failed	Compartment	Pass %
<b>Four-Year Technology</b>							
Final year	11	—	R 11	12	10	—	83.3
Four-Year Science			S 1				
I year	60	8	R 52	61	47	—	77.0
			S 9				
II year	44	—	R 44	53	25	—	47.2
			S 9				
III year	56	—	R 56	63	57	—	90.5
			S 7				
IV year	40	—	R 40	44	37	—	84.1
			S 3				
			Ex 1				
<b>Four-Year English</b>							
I year	25	—	R 25	27	19	—	70.4
			S 2				
II year	29	—	R 29	29	22	—	76.0
III year	22	—	R 22	24	20	—	83.3
			*S 2				
IV year	26	—	R 26	27	24	—	88.9
			S 1				
<b>Four-Year Commerce</b>							
I year	—	—	S 2	2	1	—	50.0
II year	36	—	R 36	—	30	—	83.3
III year	31	—	R 31	—	26	—	83.9
IV year	12	—	R 12	—	12	—	100.0
<b>One-Year B.Ed.</b>							
(i) Agriculture	16	2		14	13	—	92.8
(ii) Arts	24	1		23	22	1	95.6
(iii) Science	38	3		35	35	—	100.0
(iv) Commerce	17	1		16	14	—	87.6
							(Result of one candidate withheld)

**Legend**

R= Regular  
S= Supplementary  
Ex= Ex-Student  
\*= Result not available

## APPENDIX 13

### *Extension and Field Services*

The progress of work done in providing extension and field services during 1970-71 is given in the following paragraphs :

#### 1. Extension Services Centres

As in the previous years, financial assistance through grants-in-aid was given to 140 Extension Services Centres located in selected secondary and primary teacher training institutions throughout the country for providing extension services to the schools under their jurisdiction. Academic guidance was provided to these centres on a limited scale by the Field Advisers of the NCERT in the States and also by some of the officers of various Departments of the National Institute of Education. A brief description of the guidance provided by the Field Advisers is given below :

A State level conference of Secondary Extension Services Centres/Units in Rajasthan was held in July, 1970. The Field Adviser of the Council helped the conference to finalise programmes of the Centres/Units for 1971-72.

A State-level joint conference of Primary and Secondary Extension Services Centres in Rajasthan was held in February, 1971. The Field Adviser of the Council acted as a resource person and helped the conference to formulate guidelines for the programmes to be undertaken during 1971-72.

A State level conference of Hony. Directors and Coordinators of Secondary Extension Services Centres in Kerala was held in April, 1970. The Field Adviser concerned of the Council presented a note on "Extension Services" which was discussed and followed by a few resolutions having bearing both on academic and administrative issues of the centres. The conference resolved that the Regional Deputy Directors of Public Instruction should convene regional conferences of all the principals of teachers' colleges once in three months and review their in-service training programmes for school teachers. An Advisory Committee was also constituted for each of three educational regions in the State.

At the instance of the Council's Field Adviser, Trivandrum, the Director, State Institute of Education convened two joint conferences of Hony. Directors and Coordinators of Primary and Secondary Extension Services Centres/Units in the State. The annual plan of work of each Centre/Unit was finalised in these conferences.

A two-day conference of all Hony. Directors and Coordinators of Secondary Extension Services Centres in Mysore State was held in the month of June, 1970. In the conference, work done by each Centre was reviewed and programmes of different Centres for the next year were finalised.

The special feature of academic guidance provided by the Field Adviser (northern region) to the Secondary Extension Services Centres of his region was that the attention of the centres was drawn to orienting their work to the classroom situations. The

emphasis earlier had been on holding orientation courses, workshops, etc., producing instructional materials and conducting experimental projects in some schools. The emphasis in the Primary Extension Services Centres was laid on developing some kind of instructional materials, whereas earlier it had been on working in the classroom situations.

In the northern region, wherever possible, the Hony. Directors and Coordinators of Secondary Extension Centres were taken to schools where programmes of Primary Extension Centres were going on and Honorary Directors and Coordinators of Primary Extension Centres were provided an opportunity to see the programmes of Secondary Extension Centres. Besides, quarterly reports received by the Field Advisor from the Extension Services Centres were also reviewed and necessary suggestions given by him to the Centres for improvement.

A proposal for the establishment of an Extension Services Centre in A & N Islands was drafted by the Field Adviser, eastern region, and sent to the Director of Education A & N Islands for necessary action.

## 2. Seminar Readings

The annual National Meet of the awardees of Seminar Readings was held at New Delhi in March, 1971. At this Meet, the awardees read out their papers and discussed them in different groups, formed on the basis of subject areas. The subject-wise distribution of 20 papers selected for awards is as follows :

—National Integration	2
—Teaching of Social Sciences	3
—Language Teaching	4
—Teaching of Science	4
—Administrative Problems in Schools	4
—Miscellaneous	3
Total	20

## 3. Seminars, Workshop, Meetings, Conferences, etc.

(A) Number of seminars, workshops, meetings, conferences, etc. were organised in different areas during 1970-71, a brief account of which is given below :

(i) A seminar was conducted under the Intensive Teacher Education Programme (ITEP) at Gauhati University in June, 1970. Twenty principals and lecturers from all the nine training colleges affiliated to the Universities of Gauhati and Dibrugarh participated in the seminar. The main objective of the seminar was to draw up plans for the improvement of teacher training programme. The following aspects were considered :

- (a) Curriculum Reconstruction;
- (b) Guided School Experience;
- (c) Evaluation; and
- (d) Other Practical Work.

A revised programme based on the B.Ed. curriculum prepared earlier by the Council was recommended by both the universities for implementation from 1971-72 in the training colleges affiliated to them.

(ii) A meeting of the Board of Studies in Education of the Punjab University was held at Chandigarh in October, 1970 wherein the new B.Ed. programme prepared ear-

ller by the Council under its *Intensive Teacher Education Programme* was accepted with minor modifications for implementation from the academic session 1971-72.

(iii) Seminar-cum-workshops for teacher educators from Punjab, Haryana, Himachal Pradesh and Chandigarh were organised in March, 1971 to help them make preparation for the teaching of new B.Ed. course developed by the Council. Seminar-cum-workshops in the teaching of mathematics, science and mother-tongue were arranged at the NIE Campus, New Delhi, and in the teaching of English at Chandigarh in collaboration with the Regional Institute of English, Chandigarh.

(iv) An experimental edition of curriculum for pre-primary teacher training institutions was prepared and disseminated to different agencies and institutions engaged in pre-school education in various States and Union Territories.

(v) A conference of principals and senior lecturers of teacher training colleges in the eastern region was held in February, 1971 to consider various aspects of the B. Ed. programme. Twenty-five participants from different States in the region attended the conference.

(vi) A workshop for teacher educators of the University of Madras was organised at Coimbatore in September, 1970. The purpose of the workshop was to revise the B.Ed. and M.Ed. programmes of the university. Forty teacher educators representing thirteen colleges affiliated to the Madras University participated in the workshop. Draft schemes for improving the B.Ed. (Summer school-cum-correspondence course) and M.Ed. (including detailed syllabus for different papers and suggestions for practical work) were prepared.

(vii) A conference of primary teacher educators of the western region was held at Bhopal in March, 1971 to improve the standard of primary teacher training. Participants from primary teacher training institutes of Gujarat, Maharashtra and Madhya Pradesh attended the conference.

(viii) A workshop in psychology for lecturers of training colleges was organised at Ajmer to discuss various units prepared in the earlier workshops. The new syllabus in psychology prescribed by the University of Rajasthan was also discussed from the standpoint of its functional utility.

(ix) 1,800 prints of filmstrip on "Mahatma Gandhi—His life and Message" were prepared and distributed to the State Departments of Education.

(x) During the year under report, 160 films were added to the stock of the Central Film Library of the Council and also 74 new members were added to its list of membership. Besides, 54 films on various subjects were previewed out of which 48 were approved for acquisition. 9,977 films and 219 filmstrips were issued to 1,534 members of the Library during the year.

(xi) As an extension of the Central Film Library of the Council, 4 Regional Film Libraries have been established—one each at the four Regional Colleges of Education at Ajmer, Bhopal, Bhubaneswar and Mysore. Till the end of 1970-71, 248 prints of 62 films on various educational topics were acquired for these libraries. All the four libraries catered to the requirements of their respective regions during the year under report.

(xii) To create awareness and arouse interest among the school teachers for the use of improvised teaching aids and for the principles and techniques involved in their preparation, a scheme for organising a competition was drawn up. Under this scheme, it is proposed to award 20 prizes (10 prizes of Rs. 500/- each, another 10 of Rs. 250/- each) of the total value of Rs. 7,500/-. The Scheme was circulated to all the training colleges, State Institutes of Education and State Departments of Education. It was also advertised in the prominent newspapers for giving it wide publicity. More than 300 entries were received during the year under report which will be evaluated in 1971-72 for awarding prizes.

(xiii) Another scheme for giving away national awards with a view to encouraging private producers to produce standard audio-visual aids required by the schools in the country was formulated during the year. It is proposed to award nine prizes—five prizes of the value of Rs. 500/- each and four prizes of Rs. 250/- each—under this scheme. The scheme was published in the prominent newspapers inviting entries from private producers of audio-visual materials. Prizes will be awarded in 1971-72.

(xiv) A workshop in audio-visual education was organised during the Christmas vacation for the language teachers of Central Schools in the Eastern region. An exhibition of teaching materials was also arranged on this occasion.

(xv) A workshop in audio-visual education was organised for elementary and secondary level teacher educators at the Regional College of Education, Ajmer. The participants were imparted training in the preparation of audio-visual aids.

(xvi) During the year under report, four regional workshops, one in each region, were organised in connection with the 'Kisan Saksharata Yojna' under the Farmers' Education and Functional Literacy Project. The southern regional workshop was held at Hyderabad in August, 1970. The participants discussed the major steps to strengthen the programme and to make it more field-oriented and effective. The operational plans of the programme were also drawn up. The western regional workshop was organised at Jalgaon in September, 1970. All the State level personnel connected with the scheme participated in the workshop. The northern regional workshop was organised in October, 1970. The key personnel from the State in the region who were concerned with the programme participated in the workshop. The participants presented brief reports of the progress of functional literacy project in their respective States. They also discussed the problems faced by them in the implementation of the programme. The eastern regional workshop was held in December, 1970 at Darbhanga. The representatives from the States in the region presented brief reports of progress of work and the difficulties experienced by them in implementing the programme. They also made a number of recommendations to strengthen the programme.

(xvii) A National Workshop on Functional Literacy Project was organised at New Delhi in January, 1971 in collaboration with the Ministry of Education and Youth Services. Personnel from all the States concerned with the project participated in the workshop. The workshop was also attended by officers of the Union Ministries of Education and Youth Services, Information and Broadcasting, Food and Agriculture and Community Development and Cooperation and by the representatives of UNESCO, FAO and UNDP. The representatives from the States presented brief reports on the progress of the project in their respective States. All the aspects of functional literacy programme were also discussed in detail.

(xviii) Technical guidance to Shramik Vidyapeeth (Polyvalent Centre) Bombay in developing and designing its programme was continued during the year under report. Several need-based courses were organised for different categories of industrial workers at the Centre. The Centre was able to enlist the support of industry, trade unions and other agencies in its effort of programming these courses. Copies of the booklet "Polyvalent Education Centre—An Integrated Approach to the Education of Workers," prepared by the Council was supplied to the Polyvalent Centre, Bombay and also to other agencies interested in the project for the purpose of guidance.

(xix) During the year under report, the Films Division of the Ministry of Information and Broadcasting in collaboration with UNESCO made a film on 'Polyvalent Centre.' The Council helped the Films Division in preparing the script and also provided required technical data for the film.

(xx) Under its textbook programme, the Council produced a few sample illustrations and teaching units during the year under report. These will be made available to the agencies concerned.

(xxi) From time to time, requests have been received from various textbook agencies to suggest names of competent authors and evaluators in the field of school textbooks. It was, therefore, decided to prepare an all-India directory of competent persons in this field. Various States and other agencies were accordingly requested to send suitable names. These persons were then requested to supply their particulars in a proforma. Particulars of over 1,000 persons were collected and classified subject-wise and State-wise during the year.

(xxii) With a view to facilitating the preparation of textbooks, the National Board of School Textbooks recommended the establishment of a National Pool of Textual Materials. In pursuance of this recommendation, a National Centre of Textual Materials has been established at the Council. To begin with, textbooks both from within the country and abroad are being collected, so that they could be studied and consulted for various purposes. The Centre contains nearly 6,000 books. During the year under report, the textual materials available at the Centre were seen and used by a number of teachers, textbook authors and reviewers and other educators. A number of special exhibitions of textbooks in different subjects were also organised during the year for the benefit of educators visiting the Council at various occasions. Some foreign educators and dignitaries also visited the National Centre of Textual Materials.

(xxiii) Five brochures containing the scheme of examinations and sample evaluation materials for middle school examination (1970 onwards) in the subjects of English, mathematics, general science, history and geography, which were developed in the course of workshops conducted by the Council for the teachers of Anglo-Indian Schools of West Bengal were brought out by the Inspectorate of Anglo-Indian Schools of West Bengal.

(xxiv) Three reports of workshops for paper-setters in the concept and techniques of evaluation—two for the Gujarat S.S.C. Examination Board and one for the Rajasthan Board of Secondary Education—were brought out during the year. These were circulated to various State level educational agencies in the country.

(xxv) Brochures containing sample question papers in book-keeping and commercial practice were developed through a working group of the Rajasthan Board of Secondary Education. Sample question papers in the subjects of English, elementary mathematics, general science and social studies were also developed for the Gujarat S.S.C. Examination Board in the course of a paper-setters workshop.

(xxvi) A workshop on internal assessment was organised for the school teachers of Assam in May, 1970. It was attended by 32 participants.

(xxvii) A workshop was conducted for the paper-setters of the Rajasthan Board of Secondary Education in the subjects of elementary mathematics, general science and social studies in May, 1970. It was attended by 44 participants.

(xxviii) A workshop for the paper-setters of the Gujarat S.S.C. Examination Board was organised in July, 1970 in the subjects of English, elementary mathematics, general science and social studies. It was attended by 37 participants.

(xxix) A workshop for resource persons was organised in the subjects of elementary mathematics, general science and social studies for the Board of Secondary Education, Rajasthan from December 24, 1970 to January 2, 1971. 54 participants attended the workshop.

(xxx) A workshop for the paper-setters of the Gujarat S.S.C. Examination Board was organised in the subjects of English, elementary mathematics, general science and social studies in February, 1971. It was attended by 36 participants.

(xxxi) At the request of the Council for Indian School Certificate Examination, an intensive programme of examination reform was initiated during the year under report. To begin with, a status study of the examination pattern of the Council for Indian School Certificate Examination was conducted and a plan for the introduction of several

reform measures in the new common examination that the Council proposed to introduce for core subjects for all the schools affiliated to it was worked out. On the basis of this plan, a workshop for developing sample evaluation materials was planned which would be organised in the beginning of 1971-72.

(xxxii) Seven articles dealing with a number of problems in the area of evaluation were selected from various national and international educational journals. These were got duplicated and circulated to a large number of educational agencies and interested individuals for keeping them abreast with the latest developments in the field.

(xxxiii) A paper-setters workshop in commerce was organised in collaboration with the Board of Secondary Education, Madhya Pradesh in April, 1970. It was attended by twenty-eight participants drawn from higher secondary schools and teacher training colleges of Madhya Pradesh.

(xxxiv) A seminar on evaluation was conducted for the benefit of secondary school teachers of Orissa. The focus of the seminar was on writing of good test questions and preparing improved class tests.

(xxxv) A seminar to discuss the problems of adolescents was held in December, 1970. Fifteen teachers of educational psychology from teacher training institutions from all over the country participated in the seminar.

(xxxvi) Two workshops on sociometry in the classroom were organised in December, 1970 and March 1971 for teacher educators and guidance workers of the southern zone and central zone respectively. Twenty-three teacher educators and guidance workers participated in the southern zone workshop from the States of Kerala, Andhra Pradesh, Mysore and Tamil Nadu, while the central zone workshop was attended by twenty-eight teacher educators and guidance workers from the States of Madhya Pradesh, Maharashtra and Gujarat.

(xxxvii) A seminar on behaviour modification in classroom setting was organised from January 28 to February 4, 1971 for the benefit of teachers of training colleges, teachers of psychology in universities and degree colleges, psychologists or psychiatrists working in hospitals, clinics, research institutes and higher secondary schools. Forty-five participants from all over the country attended the seminar.

(xxxviii) A workshop was conducted in February, 1971 at the NIE Experimental School, New Delhi to work out suitable approaches for organising teaching work in grade I of primary schools. It was attended by twelve teachers from selected primary schools of Delhi. In this workshop, emphasis was laid on the development of an integrated approach to teaching and relating education to child psychology. The participants prepared programmes for grade I for the first three months which aimed at developing school readiness, rapport between the teacher and the taught on the one hand, and between parents and teachers and school and community, on the other.

(xxxix) A seminar on Reading was organised for primary school teachers in Gulab-pura (Rajasthan) in March, 1971.

(xl) A National Conference was held at New Delhi in February, 1971 to discuss the on-going programmes in the area of work-experience in different States. Twenty-four delegates from twelve States participated in the conference. Among other things, the participants formulated the operational concept of work-experience, developed framework of curriculum and drafted an outline of a suggestive minimum programme in this area which can be immediately introduced in primary schools. It also developed an outline for advanced level programmes. Furthermore, the conference considered the needed teacher education programme for introducing work-experience.

(xli) A workshop to develop suitable programmes/activities for Balwadis was organised in March, 1971 in which specialists from different States participated.



(xlii) A seminar on "Education and Economic Development of Tribal People of India" was organised in December, 1970.

(xliii) A seminar to orient the Honorary Directors and Coordinators of Primary Extension Services Centres from different States to the scheme of assistance for projects and experiments in primary schools and junior teacher training institutes was organised in February, 1971. Apart from discussing the scheme in detail, the participants prepared four designs of experimental, developmental, action research and cooperative projects.

(xliv) An exhibition on problems and solutions of primary and work-oriented education was organised in connection with the National Seminar on Primary and Work-Oriented Education held to celebrate the International Education Year, 1970.

(xlv) Two national seminars were organised in November, 1970 and February-March, 1971 for officers of all the State Institutes of Education. The chief purpose of the seminars was to discuss new ideas and innovations in the field of curriculum, instructional materials and methods, evaluation, teaching aids, etc. Other significant issues, such as national integration through education, population education, ungraded school system, etc. were also discussed.

(xlvi) A two-day meeting of the Directors of State Institutes of Education of northern region was convened by the Regional College of Education, Ajmer to discuss in-service education programmes run by them for the benefit of teacher educators of junior training colleges.

(xlvii) A conference of the Directors of State Institutes of Education of the western region was convened in March, 1971 jointly by the Regional College of Education, Bhopal and the Field Adviser, NCERT, of the said region. In this conference, the programmes of the concerned State Institutes were discussed.

(xlviii) A three-day conference on experimental projects was organised for secondary school teachers of the eastern region. The purpose of the conference was to encourage the participants to make experiments in classroom situations.

(xlix) A conference of selected mathematics teachers of secondary schools and method masters of teacher training colleges from Orissa was organised in January, 1971 to study the mathematics syllabus prescribed by the State Board of Secondary Education and to suggest improvements in it.

(l) A three-day seminar was organised for the headmasters of high and higher secondary schools of Rajasthan to discuss in detail the preparation, implementation and evaluation of institutional plans.

(li) A workshop in programmed learning in mathematics was organised for teachers of high/higher secondary schools of Rajasthan. In this workshop, programmes of Set Theory and Scalar Vector Quantities were studied by the participants and thus they could learn the procedure of evaluating programmes with the help of examples and by practising basic principles of programmed instruction.

(lii) A workshop for the preparation of instructional materials in mathematics was organised for teachers of high/higher secondary schools of Rajasthan during the year under report. The participants were involved in devising and preparing various teaching aids on different topics of mathematics.

(liii) Two institutes for science club sponsors were organised during the year—one for the science teachers of Rajasthan and the other for the science teachers of Punjab, Haryana, Chandigarh and Himachal Pradesh. In both these institutes, the participants learnt skills in wood work and metal work and devised an investigatory project and also prepared a report on the project on the basis of data collected by them. Besides, the participants were also made to prepare an improvised apparatus with cheap indigenous material.

(liv) A workshop in the teaching of English was organised for the teachers of English of Rajasthan. The participants discussed all aspects of modern language teaching and prepared lesson plans in English teaching in higher secondary schools.

(lv) A seminar was held for the English teachers of high/higher secondary schools of Rajasthan to discuss the use of functional grammar and structural approach in the teaching of English.

(lvi) A workshop was organised to acquaint the Hindi teachers of high/higher secondary schools of Rajasthan with the significant role that grammar plays in the teaching of Hindi. The topics discussed in the workshop included Nagri script pronunciation of Hindi words; functional grammar and its utility; and teaching of nouns, pronouns, verbs and tenses. A detailed programme for the improvement of teaching Hindi at the secondary level with the help of model lessons in grammar was also prepared by the participants.

(lvii) A workshop in the teaching of agriculture was organised for the secondary school teachers of Uttar Pradesh. Items like experimental projects, working on agricultural farm, kitchen gardening, etc. were discussed in the workshop.

(lviii) A workshop was organised to acquaint the secondary school teachers of commerce from Rajasthan and Uttar Pradesh with the new approach of teaching book-keeping.

(lix) A workshop in biology was organised by the Regional College of Education, Ajmer for the teachers of cooperating schools of Rajasthan. The participants were given special training in practical work in the teaching of biology and zoology. They were also acquainted with the teaching of new content recently introduced in these subjects by the Board of Secondary Education, Rajasthan.

(lx) A study circle in science consisting of science teachers of high schools in Mysore and the Science Department of Regional College of Education, Mysore was organised during the year under report. The group met several times and finalised the material for the preparation of a filmstrip on "The Atom."

(lxi) A seminar was organised by the Central Institute of Education, Delhi, in collaboration with British Council in November, 1970 on the utilisation of school libraries. It was attended by thirty participants.

(lxii) Three one-day seminars were organised on the teaching of geography at the secondary stage for the benefit of teachers of higher secondary schools of Delhi. Secondary school teachers of geography, personnel from the Department of Geography, University of Delhi and Officers of the Central Board of Secondary Education were brought together to discuss the curriculum prescribed and methods of teaching geography, etc.

(lxiii) Two workshops were organised in January, 1971 to give orientation to career masters of Delhi in various guidance practices.

(lxiv) A seminar was organised in collaboration with the Directorate of Public Instruction, Madhya Pradesh for selected school teachers of Bhopal in May, 1970. Forty-six teachers attended the seminar. A major activity in the seminar was preparation of instructional material for schools.

(lxv) An all-India seminar on student participation in the teaching of history at the secondary level was organised. The main objectives of the seminar were as under :

- (a) to discuss the curricular implications and objectives of teaching history and student-participation;
- (b) to discuss the nature and scope of student-participation in the teaching of history;

- (c) to suggest with concrete examples the forms and ways of student-participation in the teaching of history; and
- (d) to prepare some examples of student-participation based on some of the objectives of teaching history.

As a follow-up work of the seminar, a brochure on "Student-participation in the Teaching of History" is being prepared.

(lxvi) A workshop on population education was organised in May, 1970 in collaboration with the Indian Association of Teacher Educators and All-India Federation of Educational Associations. The workshop was mainly concerned with the preparation of instructional materials and the development of methodology for the teaching of population education in secondary training colleges. Thirty-six participants attended the workshop. Apart from teacher educators from secondary training colleges, major organisations, like the U.S.A.I.D., UNDP, Path Finder Fund, Family Planning Association of India, Central Health Education Bureau and the Ministries of Health and Family Planning were also represented at the workshop. On the basis of papers presented in the workshop and reports of the working groups, a booklet on population education for secondary training colleges was prepared which was circulated to the concerned agencies.

(lxvii) A seminar on population education for primary teacher educators was held at Gwalior in October, 1970. A large number of participants from the western region attended the seminar.

(lxviii) Two all-India workshops on population education were held in July and December 1970. A large number of subject experts and competent teachers were brought together in these workshops to develop proposals for the curriculum in population education. A draft syllabus on population education was developed in the workshops. The syllabus is based on the assumption that population education should be integrated with the existing school subjects. It gives content on population education under the following major areas :

- (a) Population Growth
- (b) Economic Development and Population
- (c) Social Development and Population
- (d) Health, Nutrition and Population
- (e) Biological Factors—Family Life and Population.

#### 4. 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 in the programmes organised by the State Departments of Education, State Boards of Secondary Education and other agencies working in the field of school education 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 14

### *Collaboration with the States and Union Territories (1970-71)*

In terms of the constitutional provisions, school education is essentially a State subject and the role of the Centre is confined to serving as a clearing house of ideas and information; conducting research, experiments and pilot projects; and providing innovating impulses, especially in programmes of qualitative improvement. The utility of the work of the NCERT as a Central agency, therefore, depends on the extent to which it can enlist the cooperation of the State Governments and the Union Territory Administrations in the implementation of its programmes. Consequently, all possible efforts were made to develop a close link with the States during the year. A brief account of the programmes indicating collaboration between the State Governments and the Council during 1970-71 is furnished below:

#### 1. Improving Teaching of Science

Collaboration in this area was extended in the form of supply of syllabus and instructional materials for the primary and middle school stages in all the science subjects, supply of primary science and middle school kits and deputation of resource persons to help the States conduct their training programmes for the teachers of experimental pilot project schools. All the non-Hindi speaking States were also supplied with illustrations for all the textbooks for their use in the language versions prepared by them. The Hindi-speaking States/Union Territories of Uttar Pradesh, Madhya Pradesh, Bihar, Haryana, Rajasthan, Himachal Pradesh and Delhi were supplied with the Hindi version of the textbooks. The total number of textbooks supplied during the year was 46,320 (primary 18,650 and middle 27,670). Apart from these textbooks, teachers' guides in English were also supplied to the States at their request. The States/Union Territories were also supplied with 1,717 primary science and middle school stage kits as per the State-wise distribution given in the Annexure.

#### 2. Improving Teaching of Social Sciences and Humanities

##### Andhra Pradesh

The Council helped the State Department of Education in revising and improving the syllabus in social studies.

##### Kerala

The Council provided technical assistance to the Hindi Teacher Training Institute, Trivandrum in a workshop, organised by the Institute.

##### Mysore

The State Department of Education, Mysore, set up syllabus committees to revise and formulate improved syllabi in social sciences and Hindi for classes I-VII. The syllabus committees prepared draft syllabi which were finalised in a workshop held at Mysore

in September, 1970. The Council provided technical assistance and guidance in the finalisation of the draft syllabi.

The Council accorded permission for the translation of its textbook on 'Physical Geography' into Kannada. The Kannada version has been brought out in two editions—paperback and cloth-bound. Permission to translate the other two geography books of the Council was also granted during the year.

#### **Andaman & Nicobar Islands**

The Education Department of the Union Territory of Andaman & Nicobar Islands was provided technical assistance by the Council in the adaptation of its social studies textbook for class III.

#### **3. Introduction of Population Education in the School Syllabi**

The Council helped the State Institutes of Education, Udaipur (Rajasthan) and Parna (Bihar) and the Board of Secondary Education, Assam, in organising programmes relating to the inclusion of population education in their school syllabi.

#### **4. Orientation of Primary School Teachers in Social Studies**

The Delhi Municipal Corporation and the Kendriya Vidyalaya Sangathan were rendered necessary help in the orientation of their teachers teaching primary classes in the area of social studies.

#### **5. Liaison with States through Field Contacts**

The Field Advisers of the Council in the States visited as many Extension Services Centres under their jurisdiction as they could during the year under report and provided the required assistance to solve their administrative and academic problems.

The Field Adviser, northern region, held several meetings with the concerned officers of the Departments of Education in the States of his region and discussed with them the problems of Extension Services Centres. He also invited the officers of the State Education Departments to visit the various Departments of the NIE. This proved extremely helpful to the State Officers who could seek guidance of the Council's Officers in tackling various educational problems in their respective States.

The Council provided literature on evaluation to the School Boards of Education, Punjab and Haryana. The officers of these two Boards visited the NIE during the year under report to discuss their programmes of examinations reform. The Secondary Board of School Education, Jammu & Kashmir was also rendered help in revising its textbooks at the secondary level. A set of Council's textbooks was provided to the Board, so that these could be used as guidelines by the Board for improving its own textbooks.

The Field Advisers of the Council in the States also brought to the notice of the State authorities various programmes of different Departments of the NIE.

#### **6. Evaluation of Textbooks Received from the States**

The Council intensively reviewed the manuscripts of textbooks received from the States of Rajasthan and Jammu & Kashmir. Review reports were sent to the textbook agencies concerned.

## **7. Dissemination of Materials on Textbook Production**

The materials developed by the Council on various aspects of textbook production were provided to the States in the form of illustrations and literature relating to basic principles and procedures for the preparation and evaluation of textbooks in different school subjects.

## **8. Examination Reform**

The Council provided help to the Annual Conference of Educational Administrators of Rajasthan held at Bikaner in December, 1970, in clarifying certain issues regarding the examination reform programme in the State to which the conference devoted three sessions.

The Directorate of Technical Education of Rajasthan was also rendered help in developing its examination reform programme.

The Inspectorate of Anglo-Indian Schools of West-Bengal was helped in reviewing and strengthening its programme of examination reform that had been launched with the help of the NCERT in the course of a seminar of the heads of schools held at Calcutta in February, 1971.

## **9. Orientation of Functional Literacy Instructors in the States**

The Council assisted the District Education authorities of Agra in Uttar Pradesh and Tiruchirapally in Tamil Nadu in providing orientation to the functional literacy instructors selected for working in 'Kisan Saksharta Yojna.'

## **10. School Improvement Programme**

The Council rendered assistance to the State Department of Education, Madhya Pradesh in preparing guidelines for implementing the total school improvement programme in the State.

## **11. Institutional Planning**

The Council helped the State Departments of Education, Mysore and Tamil Nadu, in organising seminars on institutional planning for the District Education Officers of the two States. Specimen plans for different institutions were prepared in the seminars.

## **12. Preparation of Instructional Materials in Science**

The Council rendered help to the Department of Education, Pondicherry, in January, 1971 in conducting a workshop for the preparation of instructional materials in science for teachers of secondary schools.

## **13. Guidance in Conducting a Training Course for Inspecting Officers and Coordinators of Primary Extension Centres in Manipur**

At the request of the State Department of Education, Manipur, the Council provided guidance in conducting a training course for all inspecting officers and coordinators of Primary Extension Centres in the Union Territory of Manipur. The training course was held at Imphal in February, 1971.

## **14. Improvement of Girl's Education**

The programme of organising State level seminars on principles and programmes of girls' education was transferred by the Union Ministry of Education and Youth Services

to the NCERT in 1970-71. The Council helped the State Governments in organising these seminars during the year.

**15. Developing Programmes on Work-Experience**

The Council helped the State Departments of Education, Andhra Pradesh and Mysore and also Kendriya Vidyalaya Sangathan in developing their programmes of work-experience.

The State Institute of Education, Udaipur (Rajasthan) was also helped in conducting a workshop on work-experience for teacher educators.

**16. Orientation Programme for School Principals and Education Officers**

At the request of Delhi Administration, a 3-week orientation programme was conducted during May-June, 1970 for a select group of Principals of higher secondary schools and Education Officers of Delhi.

**Annexure**

**State-wise Distribution of Primary Science and Middle School Stage Kits—1970-71**

Sl. No.	Name of State/ Union Territory	Primary Science Kit	Physics Kit for class VI	Biology Kit for class VI
1.	Andhra Pradesh	51	35	33
2.	Bihar	51	35	35
3.	Gujarat	50	31	30
4.	Haryana	51	31	31
5.	Jammu & Kashmir	40	40	40
6.	Kerala	51	30	31
7.	Madhya Pradesh	51	31	31
8.	Maharashtra	46	47	46
9.	Mysore	50	31	30
10.	Orissa	1	1	1
11.	Punjab	51	32	32
12.	Rajasthan	51	33	31
13.	Tamil Nadu	51	32	31
14.	Uttar Pradesh	51	32	31
15.	Andaman & Nicobar Islands	1	1	1
16.	Delhi	50	—	—
17.	Himachal Pradesh	36	33	31
18.	L. M. & A Islands	1	1	1
19.	Manipur	—	1	—
20.	Tripura	20	10	10
	<b>TOTAL</b>	<b>754</b>	<b>487</b>	<b>476</b>



## APPENDIX 15

### *Collaboration with the Ministry of Education and Youth Services (1970-71)*

The Council actively associated itself with the work of the Ministry of Education and Youth Services during the year under report. A brief report of the Council's participation in all such work is given below :

#### 1. National Board of School Textbooks

The National Board of School Textbooks was established by the Government of India in December, 1968 to coordinate and guide activities of the national and state level organisations for production and improvement of textbooks. The Department of Textbooks of the Council which was created in June, 1969, continued to serve as the academic secretariat of the National Board during the year under report. The second meeting of the Board was held on 3rd May, 1970. The report of the meeting was brought out during the year and circulated.

#### 2. National Board of Adult Education

The National Board of Adult Education was set up by the Government of India in December, 1969 to promote, guide and evaluate the programmes of adult education. The Department of Adult Education of the Council continued to provide secretarial and academic services to the Board during 1970-71. The first meeting of the Board was held in May, 1970 which made significant recommendations to eradicate illiteracy.

#### 3. Study Group on Pilot Projects

The Ministry of Education and Youth Services set up a Study Group to develop designs for pilot projects in different areas of education. As in the previous year, the officers of the Council continued to collaborate with the Ministry in 1970-71 in developing designs for pilot projects in the areas of wastage and stagnation, part-time and continuous education, girls' education, education of scheduled castes/scheduled tribes, school complex, institutional planning, vocationalisation of education and functional literacy.

#### 4. Expert Group on Workers' Social Education Institutes

The Ministry of Education and Youth Services set up in July, 1970, an Expert Group to formulate concrete proposals for the workers' social education institutes at Nagpur and Indore. Dr. T.A. Koshy and Shri B.C. Rokadiya of the Department of Adult Education of the Council were appointed as Chairman and Member-Secretary of the Group respectively.

#### 5. Intensive Educational District Development Project (IEDDP)

The Ministry of Education and Youth Services started the Intensive Educational District Development Project in four Districts, namely, Darbhanga in Bihar, Bellary

in Mysore, Sangrur in Punjab and Jalgaon in Maharashtra. The officers of the Council actively collaborated with the Ministry in working out details of various schemes under this project.

#### **6. Evaluation of Textbooks received from the Ministry of Education and Youth Services**

Nearly 40 books received from the Ministry of Education and Youth Services were screened for controversial subject-matter by the officers of the Council and evaluation reports sent to the Ministry.

#### **7. National Prize Competition for Children's Literature**

The National Prize Competition for Children's Literature which was earlier conducted by the Ministry of Education and Youth Services was entrusted to the Council for implementation during the year under report. Steps were taken by the Council to organise the 16th competition. Entries were invited through advertisement in all the leading newspapers of the country. A tool for evaluation (CLET) which contains evaluative criteria and weightage to be given to each criterion, was also finalised during the year. The tool was provided to the States for use in their evaluation of books for this competition.

#### **8. Rural Talent Search Programme**

During the year under report, the Ministry of Education and Youth Services developed a scheme of national scholarships at the secondary stage for talented children from rural areas. The NCERT was asked to undertake the responsibility of providing academic guidance to the States in conducting their second level test to identify talented children from rural areas for the award of national scholarships. The Council was further asked to coordinate academic aspect of this scheme and conduct research for identifying the talented children and bringing curricula of different States as close as possible from the standpoint of their comparability. A special Unit is proposed to be set up in the Council to discharge academic responsibilities under this scheme.

#### **9. Crash Programme of Textbook Evaluation**

In 1970-71, the Ministry of Education and Youth Services entrusted to the Council, the responsibility of implementing a crash programme of evaluating school textbooks with a view to identifying materials prejudicial to national integration. An account of the work done under this programme during the year has been given in Appendix 5.

#### **10. Study of Notable Educational Projects and Experiments in the States**

The Ministry of Education and Youth Services conducted visits of officers of various educational agencies under the Centre to the States through the Asian Institute of Educational Planning and Administration, New Delhi, for studying significant educational projects and experiments going on in different parts of the country. The officers of the Council associated themselves with these visits and prepared reports on the educational projects and experiments studied by them as members of the Central Teams to different States.

#### **11. National Integration Project**

The Ministry of Education and Youth Services entrusted to the Council the task of fostering national integration among students through various educational programmes which consisted of organisation of inter-State camps for students and teachers and for

teachers alone ; initiating 'our India project' in selected schools ; and preparation and production of suitable material relevant to the subject for students and teachers. A report of the work done under this project in 1970-71 may be seen in Appendix 7.

## **12. Population Education**

At the instance of the Ministry of Education and Youth Services, a Special Unit was set up in the Department of Social Sciences and Humanities of the Council in 1970-71 to formulate and implement appropriate programmes on population education at the school stage. The work done by the Unit during the year has already been reported in brief in the text of the main report.

## **13. International Education Year, 1970**

The Council undertook several programmes on behalf of the Ministry of Education and Youth Services for the celebration of the International Education Year during 1970-71. The most noteworthy is the celebration of tricenenary of Comenius, the famous Czech teacher. A small brochure brought out by the Council on the life and works of Comenius on this occasion was universally appreciated. In addition, the Council organised the Asian Regional Seminar for Leaders of Youth Science Activities, the General Assembly of the International Coordinating Committee for the Presentation of Science and the Development of Out-of-School Scientific Activities and National Seminars on Mass Media in Education, Primary and Work-oriented Education and Adult Education.

## APPENDIX 16

### *International Collaboration*

During the year under report, the Council continued to receive assistance from the international agencies like the UNESCO, the UNICEF and the UNDP. Assistance was also received from the British Council, the USAID, the US National Science Foundation, the Governments of the USSR, the United Kingdom and the German Democratic Republic. Many officers of the Council went abroad as members of delegations or to attend conferences or for advanced level training under various fellowship programmes. Several experts from overseas also visited the Council and its institutions. A detailed account of activities in this sphere is given in the following paragraphs.

#### **1. Equipment and Expertise Received From Overseas**

1.01 Under the UNESCO-assisted Secondary Science Teaching Project, 10 UNESCO experts assisted the Council in developing instructional materials, equipment and audio-visual aids in science and mathematics. The Council also received under this project 17 sets of school science equipment from the UNESCO which were distributed to various State Institutes of Science Education in the country.

1.02 Under the UNICEF-assisted Pilot Project for the Improvement of Science Teaching at the School Stage, one UNESCO expert assisted the Council in the development of curriculum materials in science for the primary stage. The Council distributed 79 sets of equipment received from the UNICEF under this project to selected key institutions in the country.

1.03 44 science films were received as a gift from the U.K. under the Colombo Aid Funds.

1.04 Two UNESCO experts provided technical assistance and guidance in the evaluation of Functional Literacy Project and production of instructional materials for Functional Literacy Programmes.

1.05 Under the Indo-GDR Cultural Exchange Programme 1970-71, a delegation consisting of Dr. Walter Kostka and Dr. Reinhard Bolz visited the Council for about three weeks starting from 17th March, 1971. The members of the delegation brought with them an exhibition on the educational system in the German Democratic Republic, which consisted of educational equipment and books, etc. The entire exhibition materials were presented to the Council by His Excellency, the Counsel-General of the G.D.R. in India.

#### **2. Council's Collaboration in International Research Projects**

2.01 The Council continued to collaborate during the year in the research project of the International Association for the Evaluation of Educational Achievement. 20 countries including India are participating in this project. The main aim 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.

2.02 The Council continued to collaborate with the National Institute of Educational Research, Japan in the UNESCO sponsored First Joint Research Project in Education for Asian Countries. This project is a comparative study of curriculum development at this first level of education in Asian countries. The project was started in November, 1967 with 15 Asian countries including India participating in it. Dr. R.H. Dave, Head, Department of Textbooks in the Council was appointed as the Project Director. The project was completed and its final report published from Japan in October, 1970.

### 3. Council's Training/Conduct Programmes for Foreign Educators

3.01 The Council arranged a 6-week training in the operation, maintenance and repair of various audio-visual gadgets during November-December, 1970-71 for Shri Ratna Sakya deputed by the Government of Nepal under W.H.O. Fellowship Programme.

3.02 Smt. Sarah D. Djang, a nominee of the Government of Ghana, participated in the Council's training course on Audio-Visual Education under the Special Commonwealth African Assistance Programme.

3.03 Two staff members, S/Shri Iskandar Hanna and Tewfik Meri from the Institute of Education, UNRWA/UNESCO H.Q. Beirut, visited Delhi for six weeks during September-October, 1970 to study the significant features of teacher education programme in Delhi. All possible help was extended to them to make their visit fruitful.

3.04 Shri Cheipchoovijit, a Fellow under the F.A.O. Fellowship Programme in the field of Semi-Literate Publication (Rural Youth) was attached to the Department of Adult Education of the Council for his training, field work and term paper.

3.05 A training course in Educational Evaluation, Curriculum and Instruction was organised by the Council for the officers of His Majesty's Government of Nepal at the request of the Nepal Government. 12 officers participated in the course from July 13 to September 5, 1970.

3.06 Under the USAID Third Country Programme, three Afghan nationals S/Shri Abdul Jalil Ahmedzai, Abdul Qayam Bushra and Ghulam Kadar Sepehr joined the Department of Teaching Aids of the Council for receiving training in audio-visual techniques, etc. for a period of three months, starting from 1st March, 1971.

3.07 Discussions were arranged in various Departments of NIE in February, 1971 for a party consisting of 24 lecturers and teachers of immigrant pupils from Britain who visited India to study the background of immigrant pupils whom they have to teach in British schools.

3.08 Arrangements were made for the exchange of views between the two specialists from the German Democratic Republic and officers of the Council on the programmes of work-experience in the GDR and India.

### 4. Supply of Material to UNESCO and Its Institutes

4.01 The material was supplied to UNESCO for the XXXII<sup>nd</sup> Session of International Conference on Education held at Geneva in September, 1970.

4.02 The Asian Institute of Teacher Educators, Quezon City, Philippines was provided with data on the Indian situation for its publication "A set of Practices and Trends Relating to In-service Education of Primary and Secondary School Teachers in Asia."

4.03 Upto-date information about Teacher Education (Elementary and Secondary in India) was also supplied to the Asian Institute for Teacher Educators, Quezon City, Philippines for the compilation of its report on "Teacher Education in Asia."

**5. Deputation of Council's Officers Abroad for Participation in International Conferences and Advanced Training under Fellowship Programmes**

5.01 Dr. R. H. Dave, Head, Department of Textbooks was deputed to Paris in April, 1970 to attend a meeting of the Steering Committee set up by UNESCO for conducting an International Seminar on Curriculum Development and Innovations.

5.02 Shri P. D. Sharma, Principal, Regional College of Education, Bhubaneswar, was deputed to attend the Tricentenary of Commenius in Czechoslovakia under the Indo-Czech Cultural Exchange Programme from 26th November to 5th December, 1970.

5.03 Dr. (Smt.) Perin H. Mehta, Head, Department of Educational Psychology and Foundations of Education was deputed to attend a meeting of the International Association for the Evaluation of Educational Achievements in Amsterdam from 26th to 30th October, 1970.

5.04 Smt. S. Shukla, Reader in the Department of Educational Psychology and Foundations of Education was deputed to attend the Third Meeting of National Technical Officers in Rome from November 16 to 20, 1970 in connection with the International Educational Achievement Project.

5.05 Shri Mohan Lal, Lecturer in the Department of Educational Psychology and Foundations of Education was deputed to attend a meeting of Organisers and Programmers of UNESCO-sponsored Experimental Project on Programmed Instruction in Asia, held at Tokyo from 17th to 23rd February, 1970.

5.06 Dr. T.A. Koshy, Head, Department of Adult Education in his capacity as a member of the Advisory Committee of the International Institute for Adult Literacy Methods, Teheran, was deputed to attend the first meeting of the Committee, held at Paris on 28th and 29th September, 1970.

5.07 Dr. (Smt.) S. Mulay, Reader in the Department of Adult Education visited the USA in August-September, 1970 on an invitation from the Mass Institute of Technology, Harvard, and delivered lectures on 'Communication Researches in India.'

5.08 Shri K.B. Rege, Lecturer in the Department of Adult Education, was deputed to a UNESCO-sponsored study tour in Iran under the Farmers' Training and Functional Literacy Project to study the Materials Production Programme under the Iranian Project of Functional Literacy from 19th February to 4th March, 1971.

5.09 Shri T. S. Mehta, Incharge, Department of Social Sciences and Humanities was deputed to participate in a Seminar on Population Education for Asian Countries held at Bangkok from 8th August to 3rd November, 1970. The seminar was organised by the UNESCO Regional Office for Education in Asia.

5.10 Under the UNESCO-assisted Secondary Science Teaching Project, the following officers of the Department of Science Education were deputed for training abroad.

Shri K.V. Rao  
Shri H.L. Sharma  
Km. S. Majumdar  
Shri B.K. Sharma  
Shri Om Prakash  
Shri Yashpal

5.11 Shri N.K. Sanyal, Field Adviser in the Department of Science Education was deputed to attend an Educational Research Workshop on Science Teaching in Asia held at Tokyo from 13th February to 12th March, 1971.

5.12 Shri S. Doraiswami, Reader in the Department of Science Education was deputed to attend an International Workshop on Environmental Education in School Curriculum, IUCN at Nevada from 20th June to 10th July, 1970.

5.13 Km. S. Majumdar, Senior Research Assistant in the Department of Science Education was deputed for higher studies in U. K. under the British Council Fellowship Programme from 9th September, 1970 to 20th July, 1971.

5.14 Shri D.S. Rawat, Incharge, Department of Pre-Primary and Primary Education participated in an International Seminar on "An Integrated Approach to Primary Curriculum" organised jointly by UNESCO, CEDO and the British Council in Somerset England from 30-11-1970 to 11.12.1970.

5.15 Dr. (Smt.) V. S. Anand, Lecturer in the Department of Textbooks went for advanced studies under the Commonwealth Teacher Training Bursaries U. K. from 1-10-1970 to 4-7-1971.

5.16 Shri Om Prakash, Lecturer in the Department of Social Sciences and Humanities went for advanced studies under the Commonwealth Teacher Training Bursaries U. K. on 2nd October, 1970. He had to give up his studies on health grounds and returned to India on 12th November, 1970.

#### 6. Council's Officers who went Abroad on Special Assignments

Dr. A. Raoof, Field Adviser relinquished charge in the Council on 9-10-1970 and was transferred on foreign service to UNESCO for a period of two years to take up an assignment as a Specialist in Principles of Teaching at the Kabul Academy for Teacher Education, Kabul.

#### 7. Deputation of Council's Officers for Participation in International Conferences and Advanced Training Courses held in New Delhi and for providing Consultancy Services to International Agencies

7.01 Dr. T.A. Koshy, Head, Department of Adult Education was deputed to attend a meeting of Experts on 'Lifelong Integrated Education' convened by the UNESCO-sponsored Asian Institute of Educational Planning and Administration at New Delhi from August 10 to 13, 1970.

7.02 Shri C.L. Sapra, Reader in the Department of Social Sciences and Humanities, and Dr. R. K. Mathur, Reader in the Data Processing and Educational Survey Unit were deputed to attend a Regional Training Seminar on Educational Statistics convened

by the UNESCO-sponsored Asian Institute of Educational Planning and Administration at New Delhi from December 7 to 18, 1970. Shri C.L. Sapra presented a paper on "Measurement of Educational Wastage-A Review of Methodologies."

7.03 Shri C.L. Sapra, Reader in the Department of Social Sciences and Humanities was deputed to attend the 11th Training Course for Educational Planners and Administrators organised by the UNESCO-sponsored Asian Institute of Educational Planning and Administration, New Delhi, from September 1, 1970 to February 28, 1971.

7.04 Dr. M.C. Pant, Head, Department of Science Education was deputed to participate in the UNESCO Regional Asian Seminar for Leaders of Youth Science Activities held at New Delhi, from December 14 to 18, 1970.

Dr. M.C. Pant also participated in the General Assembly of the International Coordinating Committee for the Presentation of Science and the Development of Out-of-School Scientific Activities held at the New Delhi from December 18 to 21, 1970.

7.05 Dr. (Smt.) R. Muralidharan acted as Consultant to the UNICEF in the supply of equipment for the Family and Child Welfare Projects.

#### 8. Foreign Experts on Deputation to the Council

8.01 Under the UNESCO-assisted Secondary Science Teaching Project, 7 Experts continued to assist the project throughout the year, while 3 left during the year after completing their assignments. The post of Chemistry Expert remained vacant. The UNESCO/UNICEF Expert, Shri A.W. Torrie continued to work in the primary science programme.

8.02 Shri M.T. Hedegaard, UNESCO Expert in Evaluation joined the Department of Adult Education on 19th July, 1970 and continued to work in the Department throughout the year on Evaluation of Functional Literacy Project.

8.03 Shri C. Bonanni, another UNESCO Expert in Functional Literacy Materials, joined the Department of Adult Education on 19th March, 1971. He assisted the Department in the production of Instructional Materials for Functional Literacy Programmes.



## APPENDIX 17

### *Publications 1970-71*

#### TEXTBOOKS

1. Gadya Sankalan (Reprint)
2. Kavya Sankalan (Reprint)
3. Commercial and Economic Geography
4. Rashtra Bharati Part II (Reprint)
5. Ekanki Sankalan (Reprint)
6. Madhya Kalin Bharat (Reprint)
7. Ank Ganit Beej Ganit Part I (Reprint)
8. Jeev Vigyan Part I (Reprint)
9. Biology Section III (Reprint)
10. Aao Padhen Aur Khojen (Reprint)
11. Geometry Part I (Reprint)
12. Rani Madan Amar (Reprint)
13. Arithmetic-Algebra Part (Reprint)
14. Kahani Sankalan (Reprint)
15. Sthaniya Shasan (Reprint)
16. 'Let's Learn English' for Class III
17. Physics Part II (Reprint)
18. Shasan Aur Samvidhan
19. Biology Part I (Reprint)
20. Aao Hum Padhen (Reprint)
21. Science is Doing
22. PSSC Physics Vol. I (Reprint)
23. PSSC Physics Vol. II (Reprint)
24. PSSC Physics Vol. III (Reprint)
25. PSSC Physics Vol. IV (Reprint)
26. Hindi Sahitya Ka Itihas
27. Prachin Bharat (Reprint)
28. Chemistry Part I (Reprint)
29. English Reader Book I—An English Textbook for Class VI (Reprint)
30. Social Studies Book III
31. Beej Ganit for Higher Secondary
32. Australia Aur America
33. Science is Doing (Hindi)
34. Bhautiki Part II (Reprint)
35. Let's Learn English for Class III (Reprint)
36. Rasayan Vigyan Part I (Reprint)
37. Asia Aur Africa (Reprint)
38. Physical Geography (Reprint)
39. Samanya Vigyan Vol. I
40. Insight into Mathematics (Reprint)
41. Insight into Mathematics (Hindi)
42. Let's Learn English-Book I (Special Series) (Reprint)
43. Jeev Vigyan Part II (Revised edition)

44. Jeev Vigyan Section III (Reprint)
45. Kavya Sankalan (Reprint)
46. Australia and America—A Geography Textbook for Class VII
47. Gadya Sankalan (Reprint)
48. Jeev Vigyan Part I (Reprint)
49. Jeev Vigyan Part II (Reprint)
50. Physics for Middle Schools (Study Group Book)
51. Shashan Aur Samvidhan (Reprint)

#### TEACHERS' GUIDES AND WORKBOOKS

52. Teachers' Guide for Social Studies I & II (Hindi)
53. Meri Sulekh Pustika Book I (Reprint)
54. Meri Sulekh Pustika Book II (Reprint)
55. Teachers' Guide for English Reader for Class III (Special Series)
56. Mathematics for Primary Schools—A Handbook for Teachers
57. Teachers' Guide for Geometry Book I
58. Teachers' Guide for English Textbook Class III
59. Meri Abhyas Pustika for Class III
60. Workbook for English Reader Book I
61. Teachers' Manual for Rani Madan Amar (Reprint)
62. Meri Abhyas Pustika (Chalo Pathshala Chalen) (Reprint)
63. Teachers' Guide for Rashtra Bharati Part II-A Textbook for Class VII
64. Pupil's Workbook for Class VI (Special Series)
65. PSSC Teachers' Resource Guide Part I
66. PSSC Teachers' Resource Guide Part II
67. PSSC Teachers' Resource Guide Part III
68. Teachers' Guide to Science is Doing (English)
69. Teachers' Guide to Science is Doing (Hindi)
70. Teachers' Guide to PSSC Physics Volume IV
71. Workbook to English Reader Class III
72. Laboratory Manual for School Chemistry
73. Teachers' Guide for Physics Textbook for Class VI (Hindi)
74. Teaching History in Secondary Schools
75. Teachers' Manual for Rashtra Bharati Part III
76. Hindi Handwriting Book No. III (Reprint)
77. Workbook for Hindi Textbook for Class III (Reprint)
78. Workbook for Hindi Textbook for Class IV (Reprint)
79. Workbook for English Textbook for Class III (Special Series) (Reprint)
80. Workbook for Aao Padhen Aur Seekhen (Hindi Reader IV)

#### SUPPLEMENTARY READERS

81. The Life of Insects
82. Raja Rammohan Roy
83. Shankaracharya
84. Non-Flowering Plants of the Himalayas
85. Mirza Ghalib (English)
86. Kabir (Hindi)

#### OTHER PUBLICATIONS

- Centre-State Relations in Education by. Dr. V.K.R.V.

88. Seminar Readings Programme 1970-71
89. Rating Scale of Personality Traits of Primary School Pupils
90. Cumulative Record for Primary Stage
91. National Survey of Elementary Teacher Education
92. Rules of the N.C.E.R.T.
93. Report of the Committee on Improvement of Art Education (Reprint)
94. Architect, Civil Engineering Tatha Anya Vyavasaye
95. Annual Report of NCERT 1968-69 (Hindi)
96. The Nation and the School (Reprint)
97. Facets of Indian Education
98. Kanoon Sambandhi Vyavasaye
99. Film Catalogue
100. Primary Teacher Education Curriculum
101. Curriculum and Teaching of Mathematics in Secondary Schools
102. Education and National Development—Report of the Education Commission 1964-65 Vol. 1 (Reprint)
103. Education Commission Report Volume 2
104. Proceedings of the Second Meeting of National Board of School Textbooks
105. The Role of Schools in Character Formation
106. Audit Report of the N.C.E.R.T. 1968-69 (English and Hindi)
107. Report on Science Education in the Regional Colleges of Education
108. Special Tests of Achievements in Mathematics (English and Hindi) (Eight brochures)
109. Conformity and Deviation Among Adolescents
110. Field Studies in Sociology of Education
111. Sab Ke Bapu (Urdu)
112. Education Commission Report Vol. 2 (Hard bound)
113. Seminar on Primary and Work-Oriented Education
114. Seminar on Primary and Work-Oriented Education—A Collection of Papers Presented for Discussion at the Seminar
115. Formulating Objectives of Primary Education
116. Objectives of Primary Education—A Collection from Different Sources
117. Work-Experience as an Integral Part of Primary Education
118. An Annotated Bibliography on School Curriculum
119. Evaluative Criteria for Inspection and Supervision of Secondary Schools
120. John Amos Komesky (Comenius)
121. Primary Extension Services
122. Shift System in Kerala
123. Achievement Test in Mathematics (Four Booklets)
124. All India Survey of Achievement in Mathematics
125. School Health Programme—A Survey
126. Development of Scholastic Aptitude Tests
127. Draft Annual Report of N.C.E.R.T. 1969-70
128. Educational Wastage at the Primary Level—A Handbook for Teachers (Reprint)
129. Annual Report of NCERT 1969-70
130. Elementary Teacher Education
131. Rules of the N.C.E.R.T. (Reprint)
132. What is Curriculum ?
133. The Teacher Speaks Vol. VII
134. Committee on Examinations—Questionnaire (Appendix 1)
135. Committee on Examinations—Appendix IX
136. Committee on Examinations—Typical Reply to our Questionnaire (Appendix X)
137. Committee on Examinations—Principles of Scaling and the use of Grades in Examinations (Appendix XI)

## **JOURNALS**

1. *N.I.E. Journal* : March, May, July, September, November, 1970.
2. *N.I.E. Newsletter* : March, June, September, December, 1970.
3. *School Science* : December, 1969, March-June, September, 1970.
4. *Indian Educational Review* : January, July, 1970, January 1971.

**Annexure**

**STATES/UNION TERRITORIES, ETC. WHICH HAVE PRESCRIBED NCERT TEXTBOOKS**

Sl. No.	Title	State/Union Territory/Organisation/University which have prescribed
1	2	3

**TEXTBOOKS (ENGLISH)**

**BIOLOGY**

- |    |  |  |
|----|--|--|
| 1. | Biology : Science for Middle Schools Part I (for Class VI)           | Kendriya Vidyalaya Sangathan, Manipur (Translating into Manipuri)  |
| 2. | Biology : Science for Middle Schools Part II (Class VII)             | -do-   |
| 3. | Biology : Science for Middle Schools Part III (for Class VIII)       | -do-   |
| 4. | Biology : A Textbook for Higher Secondary Schools Section I          | Madhya Pradesh, Tamil Nadu, Nagaland, Punjab, A. and N. Islands, *Delhi, Goa, Daman and Diu, Himachal Pradesh, Manipur, Haryana, Kendriya Vidyalaya Sangathan. |
| 5. | Biology : A Textbook for Higher Secondary Schools Section II         | -do-   |
| 6. | Biology : A Textbook for Higher Secondary Schools Section III        | -do-   |
| 7. | Biology : A Textbook for Higher Secondary Schools Section IV and V   | -do-   |
| 8. | Biology : A Textbook for Higher Secondary Schools Section VI and VII | -do-   |

**CHEMISTRY**

- |     |   |   |
|-----|---|---|
| 9.  | Chemistry : Science for Middle Schools Part I (for Class VII)   | Kendriya Vidyalaya Sangathan, Manipur (Translating into Manipuri) |
| 10. | Chemistry : Science for Middle Schools Part II (for Class VIII) | -do-  |

1	2	3
---	---	---

### PHYSICS

- |     |  |   |
|-----|--|---|
| 11. | Physics : Science for Middle Schools Part I (for Class VI)     | Kendriya Vidyalaya Sangathan, Manipur (Translating into Manipuri) |
| 12. | Physics : Science for Middle Schools Part II (for Class VII)   | -do-  |
| 13. | Physics : Science for Middle Schools Part III (for Class VIII) | -do-  |

### MATHEMATICS

- |     |   |   |
|-----|---|---|
| 14. | Arithmetic-Algebra : Mathematics for Middle Schools Part I (for Class VI)     | Kendriya Vidyalaya Sangathan  |
| 15. | Arithmetic-Algebra : Mathematics for Middle Schools Part II (for Class VII)   | -do-  |
| 16. | Arithmetic-Algebra : Mathematics for Middle Schools Part III (for Class VIII) | -do-  |
| 17. | Geometry : Mathematics for Middle Schools Part I (for Class VI)               | -do-  |
| 18. | Geometry : Mathematics for Middle Schools Part II (for Class VII)             | -do-  |
| 19. | Geometry : Mathematics for Middle Schools Part III (for Class VIII)           | -do-  |
| 20. | Algebra: A Textbook for Secondary Schools Part I                              | Nagaland, A. & N. Islands, *Delhi, Manipur, Kendriya Vidyalaya Sangathan          |
| 21. | Algebra: A Textbook for Secondary Schools Part II                             | -do-  |
| 22. | Insight into Mathematics : Book I for Class I                                 | (i) Bihar (Translated into Hindi)<br>(ii) Jammu & Kashmir (Translating into Urdu) |

### TECHNOLOGY

- |     |   |   |
|-----|---|---|
| 23. | Engineering Drawing : A Textbook for Technical Schools                | *Delhi, Punjab, Himachal Pradesh, Manipur |
| 24. | Elements of Electrical Engineering : A Textbook for Technical Schools | Punjab, Haryana, Himachal Pradesh         |

1	2	3
---	---	---

### SOCIAL STUDIES

- |     |   |  |
|-----|---|--|
| 25. | Our Country India : Book I (for Class III)                        | Manipur, Kendriya Vidyalaya Sangathan                            |
| 26. | Our Country India : Book II (for Class IV)                        | Kendriya Vidyalaya Sangathan, Manipur (Translating into Manipur) |
| 27. | India and the World : Book III (for Class V)                      | -do-   |
| 28. | Social Studies : A Textbook for Higher Secondary Schools Volume I | Kendriya Vidyalaya Sangathan                                     |

### GEOGRAPHY

- |     |  |  |
|-----|--|--|
| 29. | Practical Geography : A Textbook for Secondary Schools | Kendriya Vidyalaya Sangathan, *Delhi, Manipur, Punjab, Haryana, Himachal Pradesh, Madras University (for P.U.) |
| 30. | Economic Geography : A Textbook for Secondary Schools  | *Delhi, A. & N. Islands, Manipur, Punjab, Haryana, Himachal Pradesh, Kendriya Vidyalaya Sangathan              |
| 31. | Physical Geography : A Textbook for Secondary Schools  | Kendriya Vidyalaya Sangathan *Delhi, Mysore University (Translated into Kannada)                               |

### HISTORY

- |     |   |  |
|-----|---|--|
| 32. | Ancient India : A Textbook of History for Middle Schools (for Class VI)   | Manipur (Translated into Manipuri), Laccadives |
| 33. | Medieval India : A Textbook of History for Middle Schools (for Class VII) | Manipur (Translating into Manipuri)            |

### COMMERCE

- |     |   |                                      |
|-----|---|--------------------------------------|
| 34. | Elements of Book-keeping and Accountancy : A Textbook for Class IX-XI | *Delhi, Kendriya Vidyalaya Sangathan |
|-----|---|--------------------------------------|

### ENGLISH LANGUAGE

- |     |  |                              |
|-----|--|------------------------------|
| 35. | English Reader Book IV (General Series) for Class IX | Punjab Board, N.E.F. Agency  |
| 36. | English Reader Book IV (Special Series) for Class IX | Kendriya Vidyalaya Sangathan |

1	2	3
37.	English Reader Book I (Special Series) for Class VI	Kendriya Vidyalaya Sangathan
38.	English Reader Book I (General Series) for Class VI	Bihar, N.E.F. Agency
39.	Let's Learn English Book I (Special Series) for Class III	N.E.F. Agency, Kendriya Vidyalaya Sangathan

### TEXTBOOKS (HINDI)

#### BIOLOGY

40.	Biology : Science for Middle Schools Part I (for Class VI)	Delhi Administration
41.	Biology: Science for Middle Schools Part II (for Class VII)	-do-
42.	Biology : Science for Middle Schools Part III (for Class VIII)	-do-
43.	Biology : A Textbook for Higher Secondary Schools Section I	*Delhi, Madhya Pradesh, Haryana, Punjab, Himachal Pradesh, Goa, Daman & Diu
44.	Biology : A Textbook for Higher Secondary Schools Section II	*Delhi, Himachal Pradesh, Haryana, Punjab

#### CHEMISTRY

45.	Chemistry : Science for Middle Schools Part I (for Class VII)	Delhi Administration
46.	Chemistry : Science for Middle Schools Part II (for Class VIII)	-do-

#### PHYSICS

47.	Physics : Science for Middle Schools Part I (for Class VI)	Delhi Administration
48.	Physics : Science for Middle Schools Part II (for Class VII)	-do-
49.	Physics : Science for Middle Schools Part III (for Class VIII)	-do-

#### MATHEMATICS

50.	Arithmetic-Algebra : Mathematics for Middle Schools Part I (for Class VI)	-do-
-----	---	------



1	2	3
51.	Arithmetic-Algebra : Mathematics for Middle Schools Part II (for Class VII)	Delhi Administration
52.	Arithmetic-Algebra : Mathematics for Middle Schools Part III (for Class VIII)	-do-
53.	Geometry : Mathematics for Middle Schools Part I (for Class VI)	-do-
54.	Geometry : Mathematics for Middle Schools Part II (for Class VII)	-do-
55.	Geometry : Mathematics for Middle Schools Part III (for Class VIII)	-do-

### SOCIAL STUDIES

56.	Hamari Dilli (for Class III)	Delhi Administration, Bihar, A. & N. Islands
57.	Hamara Desh Bharat (for Class IV)	Delhi Administration, Bihar, Haryana, A. & N. Islands
58.	Bharat Aur Sansar (for Class V)	Kendriya Vidyalaya Sangathan, Delhi Administration, Bihar, A. & N. Islands
59.	Samajik Adhyan Part I (for Class III)	Kendriya Vidyalaya Sangathan
60.	Samajik Adhyan Part II (for Class IV)	Kendriya Vidyalaya Sangathan
61.	Sthaniya Shasan : A Textbook of Civics for Middle Schools (for Class VI)	Bihar, Delhi Administration, Kendriya Vidyalaya Sangathan
62.	Shasan Aur Samvidhan : A Textbook of Civics for Middle Schools (for Class VII)	Delhi Administration, Kendriya Vidyalaya Sangathan

### GEOGRAPHY

63.	Africa Aur Asia : A Textbook for Middle Schools (for Class VI)	-do-
64.	Australia, Uttar Aur Dakshin America : A Textbook for Class VII	-do-

### HISTORY

65.	Prachin Bharat : A Textbook for Middle Schools (for Class VI)	-do-
66.	Madhyakalin Bharat : A Textbook for Middle Schools (for Class VII)	-do-

1	2	3
---	---	---

**HINDI**

67.	Rani Madan Amar : Hindi Primer	Kendriya Vidyalaya Sangathan, Bihar, Delhi Administration, A. & N. Islands, Laccadives, N.E.F. Agency (for Class III)
68.	Chalo Pathshala Chalen : Hindi Reader Book I	Kendriya Vidyalaya Sangathan, Delhi Administration, A. & N. Islands, Bihar, N.E.F. Agency (for Class IV)
69.	Aao Hum Padhen : Hindi Reader for Class II	Kendriya Vidyalaya Sangathan, Delhi Administration, Bihar A.&N. Islands, N.E.F. Agency (for Class V)
70.	Aao Padhen Aur Samjhen : Hindi Reader for Class III	Kandriya Vidyalaya Sangathan, Delhi Administration, Bihar, A. & N. Islands, N.E.F. Agency (for Class VI)
71.	Aao Padhen Aur Seekhen: Hindi Reader for Class IV	Kendriya Vidyalaya Sangathan, Delhi Administration, Bihar, A. & N. Islands, N.E.F. Agency (for Class VII)
72.	Aao Padhen Aur Khojen : Hindi Reader for Class V	Kendriya Vidyalaya Sangathan, Delhi Administration, Bihar, A. & N. Islands, N.E.F. Agency (for Class VIII)
73.	Rashtra Bharati Part I : Hindi Reader for Class VI	Delhi Administration, A. & N, Islands, Manipur, Bihar, Kendriya Vidyalaya Sangathan
74.	Rashtra Bharati Part II : Hindi Reader for Class VII	Delhi Administration, A. & N. Islands, Kendriya Vidyalaya Sangathan, Bihar
75.	Rashtra Bharati Part III : Hindi Reader for Class VIII	-do-
76.	Kavya Sankalan : A Textbook for Secondary Schools	*Delhi, Andhra Pradesh, West Bengal, Kendriya Vidyalaya Sangathan
77.	Gadya Sankalan : A Textbook for Secondary Schools	Kendriya Vidyalaya Sangathan, *Delhi, Andhra Pradesh, West Bengal, Punjab University (included four essays from the book in the book published by them)

1	2	3
78.	Ekanki Sankalan : A Textbook for Secondary Schools	*Delhi, Kendriya Vidyalaya Sangathan, Madhya Pradesh
79.	Kavya Ke Ang : A Textbook for Secondary Schools	Madhya Pradesh, *Delhi, Kendriya Vidyalaya Sangathan
80.	Hindi Sahitya Ka Itihas : A Textbook for Secondary Schools	Punjab Board
81.	Kahani Sakalan : A Textbook for Secondary Schools	*Delhi, Kendriya Vidyalaya Sangathan
82.	Kavya Sankalan } Gadya Sankalan } (Combined Edition)	Baroda University

#### SANSKRIT

83.	Sanskritodayah: A Textbook for Secondary Schools	*Delhi, Kendriya Vidyalaya Sangathan, Manipur, A. & N. Islands, Jammu & Kashmir University (for Pre-University Course)
-----	--	--

\* Central Board of Secondary Education, New Delhi.