

NATIONAL COUNCIL OF EDUCATIONAL
RESEARCH AND TRAINING

ANNUAL REPORT
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NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

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The Council and Its Activities

THE COUNCIL AND ITS ACTIVITIES

1. The National Council of Educational Research and Training, popularly known as NCERT, was established on 1 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 provide 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 assists the Ministry of Education and Social Welfare in the formulation and implementation of its policies and programmes in the field of school education. Broadly, the functions of the Council are:

- (a) To undertake, aid, promote and coordinate research in all branches of education;
- (b) To organise pre-service and in-service training, mainly at an advanced level;
- (c) To undertake the publication of such books, periodicals and other literature as may be necessary for the furtherance of its objects;
- (d) To act as a clearing-house for ideas and information on educational research, training and extension.

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 work known to the public, it undertakes the publication of books, journals and other literature.

4. The Council has set up several institutions for organising its training and extension programmes and for carrying out and promoting research activities.

The Council has its headquarters in Delhi. It maintains a close liaison with all the State Governments through its network of offices of Field Advisers in the States.

5. At Delhi, the Council has the National Institute of Education. This Institution is primarily concerned with research and development. 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, fundamental work necessary for the fulfilment of the Council's objectives is also undertaken.

6. A Centre for Educational Technology has been established in Delhi for the development of innovations in education and building an Information Bank on Educational Technology. It functions as a separate unit of the Council with a Management Committee which tenders advice to the Executive Committee in all matters concerned with the Centre.

7. The Council runs four Regional Colleges of Education at Ajmer, Bhopal, Bhubaneswar and Mysore. These institutions are campus colleges, each with an extensive laboratory, library and residential facilities, and are affiliated to the respective State universities. 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. The four-year courses run in the Regional Colleges are meant to implement the view 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 Regional Colleges run one-year B Ed. courses also.

Of special significance among the one-year B Ed. courses are those pertaining to science, agriculture, commerce and languages. 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 in schools. Three of the Regional Colleges at Ajmer, Bhopal and Bhubaneswar are offering M Ed courses. Some of the members of teaching staff in the two Regional Colleges at Ajmer and Bhubaneswar have been recognised as official guides for the Ph D degree of the respective affiliating universities. All the four Regional Colleges also organise in-service education courses, particularly in work experience, for the teacher-educators and school 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 other institutions and also the State Departments of Education in their respective regions. Each Regional College has a Management Committee with the Vice-Chancellor of the university to which it is affiliated, as its Chairman. The Management Committee tenders advice to the Executive Committee of the Council on all matters of direct interest to the College concerned.

8. The Council has a Publication Department 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 material
- (c) Year Books
- (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 Minister in charge of the portfolio of Education in the Union Council of Ministers as its President. All Ministers of Education in the States of the Union and in Union Territories having legislatures, and the Chief Executive Councillor, Delhi, are members of the Council. Other members of the Council are: Chairman of the University Grants Commission, Secretary to the Government of India in the Ministry

of Education and Social Welfare, four Vice-Chancellors of universities (one from each region), 12 nominees of the Government of India among whom four are teachers, and all members of the Executive Committee. With such a constitution, it becomes possible to take policy decisions at the highest level and in a mutually agreed manner.

10 The administration of the Council is vested in an Executive Committee with the Union Minister in charge of Education and Social Welfare as its President and the Minister of State for Education and Social Welfare as its Vice-President. Among others, one of the Deputy Ministers of Education in the Union Ministry of Education and Social Welfare is its member. Other members of the Executive Committee are the Director and the Joint Director of the Council, the Chairman of the University Grants Commission, one representative each of the Union Ministry of Education and Social Welfare and the Union 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 of education 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.

11. In addition, the Executive Committee generally appoints Standing Committees, with representatives of the Council and experts in the field from different parts of India, to deal with a variety of specific issues. Thus, problems pertaining to Study Groups in science, problems pertaining to the Unesco/Unicef-aided pilot project for the Improvement of Science Education in the country, the National Science Talent Search scheme, etc., which require handling, in the first instance, at the level of acknowledged experts, are considered by the Science Advisory Committee. Similarly, problems relating to the publications of the Council are first considered by its Publication Advisory Committee and problems concerning the construction of buildings, etc., by its Building and Works Committee.

12. The Ministry of Education and Social Welfare sets up

several committees or boards. The Council is generally represented on these boards and, wherever necessary, it provides the required expert advice in addition to collaboration with the 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 Council provides the secretariat for the National Council for Teacher Education. The link between the Ministry of Education and Social Welfare 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 close coordination helps the effective functioning of the Council and assists its work to a remarkable degree, particularly in the implementation of its programmes.

13. The Council assists the Ministry of Education and several Commonwealth countries in selecting teachers or educational administrators from India to serve in those countries.

14. 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 improving their examination systems. It has developed, with the assistance of the Unesco-Unicef, a considerable amount of science teaching material. In addition, the science books published under the Unesco-Unicef pilot project have been translated into almost all regional languages.

15. The Council conducts an All-India competition to select talented students in the field of science under its scheme of National Science Talent Search. This Scheme has become extremely popular and provides an opportunity to students coming from even poor families to pursue their studies uninterrupted and free from financial worry up to the highest level in education, viz, the Ph.D. The examinations for this scheme are now being conducted in all the languages of the Union and the entire procedure is kept constantly under review to effect improvements.

16. An all-India competition under the Seminar Readings Programme is organised annually by the Council. The programme is designed to:

- (i) Stimulate teachers and headmasters to write about the experience they have gained and the knowledge they have acquired through experimentation in their work and through study and creative thought about educational problems; and
- (ii) Provide a means through which the results of experimentation and creative thinking by teachers and headmasters can be presented to other teachers for discussion and be made widely known among educators in general.

A maximum of 30 cash prizes of Rs 500 each are awarded for papers selected at the national level. The selected papers are published in book form.

17. The Council has evaluated and is continuously evaluating the 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 has developed brochures on the preparation and evaluation of textbooks in different school subjects for the guidance of textbook writers and evaluators.

18. The Council's scheme of giving grant-in-aid for research projects has enabled many university departments of education, 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 also provides financial assistance to individuals for the publication of outstanding researches in the field of education. In addition, it gives grants to professional educational organisations operating at national/regional levels for the improvement of school education. It also encourages school teachers to undertake experimental projects which would help them solve their classroom problems. 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 professional growth.

19. The Council has embarked on a special project to clear the backlog of untrained teachers through its Regional Colleges of Education. In this scheme, intensive correspondence-cum-summer school facility is provided to employed untrained teachers in order to assist them to qualify for the B Ed. degree.

20. In order to provide basic data on various aspects of school and teacher education for purposes of planning, the Council conducts educational surveys.

21. 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. Among these, the summer science institutes are of great significance.

22. The Council provides academic guidance to primary and secondary extension services centres spread throughout the country. The Council also 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 and from several organisations interested in school education, including the State Boards of Education, etc.

23. 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 inter-State Camps of students and teachers. Some of the textual material, community singing material, etc., developed by it has attracted the special attention of the schools.

24. The Council has started work in the area of Population Education. Considerable work has been done to introduce the idea of population education in the different school subjects and also in the teacher education curriculum.

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

Highlights of 1973-74

HIGHLIGHTS OF 1973-74

During the year under report, a number of programmes were undertaken by the various constituent units of the Council. Some of the research projects which had been continuing from the previous years were completed, while a few new ones were undertaken. As usual, all the programmes of the Council, before being launched, were re-cast in the light of the advice of the Programme Advisory Committee.

A brief description of the major programmes of the Council completed/undertaken during 1973-74 is given below.

1. Curriculum Development

Curriculum Development has been a major on-going activity of NCERT ever since its establishment in 1961. A great deal of work has been done in the different school subjects by the concerned departments of NIE. Since this work was mostly done independently, there was a felt need to develop a coordinated and articulated curriculum for the entire school stage. The previous work on curriculum development was pursued with vigour by NCERT in the matter of curriculum development for the first 10 years of schooling on the 10+2 pattern to facilitate the implementation of the proposed uniform structure for the 10+2 pattern for school education. The Ministry of Education and Social Welfare has already instructed the Council to develop a nucleus for not only developing an integrated curriculum for the school stage but also to prepare guidelines for the content matter and approach to teaching different school stages. The approach to the curriculum should also include the basic ideas of work experience and vocationalisation as well as making education environment oriented. A number of committees have been formed to take up this work, and by the end of 1974 it is expected that a complete outline of the proposed curriculum for the 10 years of schooling will be developed. Necessary instructional materials for major areas will be prepared by the different academic departments of the NIE.

In the field of primary education the Council proposes to launch a special programme for adjusting the curriculum for special sections like children coming from tribal and rural areas, or from slums in big cities, children from the economically deprived sections of the community, gifted children, slow learners and girls. Curricula for multiple stages of entry at the primary and middle level for different categories of children are also being developed. The Council proposes to do intensive work with the States for the implementation of the new curriculum during the Fifth Five Year Plan.

The work done in the area of curriculum development during 1973-74 is described in Appendix 6.

2. School Science Project

Since 1967, NCERT has been operating, on behalf of the Government of India and with assistance from Unesco, a project for the reorganisation and expansion of the teaching of science throughout the school stage. Under this project the Council has developed and is developing new syllabi in science and mathematics and corresponding instructional materials based on the syllabi. Simple and cheap laboratory equipment and kits have also been developed. With the assistance of the Unicef this project is being implemented in States and Union Territories on a voluntary basis. The project has a pilot phase and a wider introduction phase. The Council supplies all the instructional materials in English or Hindi to the States for adoption/adaptation and translation in the regional languages and also supplies science kits to the experimental schools for the pilot phase. During the year, the Central Science Workshop of NCERT has produced and supplied 2,710 science kits to different States and Union Territories. Most of the States have already completed the pilot phase and entered into the wider implementation phase. So far, the plans from 18 States and six Union Territories have been received and scrutinized, and comments were sent to the Ministry of Education for approval of the State Plans. The Unicef has supplied 9,407 primary school kits, covering nine States and five Union Territories, and middle school kits to 13,512 schools, covering 11 States and five Union Territories, in the wider implementation phase.

From January 1974, there has been a major change in the Unicef policy of assistance according to which the Unicef is phasing out from the middle school stage. Hence the assistance for wider

introduction will continue only for about 13,600 schools out of a contemplated total of 31,000 schools. It is, however, expected that assistance will be continued for another 13,000 primary schools and 3,765 middle schools in addition to the schools already covered during the Fifth Plan period. Under this project the supply of laboratory equipments, workshop tools and library books has already been made to a variety of teacher-training institutions, known as key institutions, which include State Institutes of Science Education, State Institutes of Education, teacher-training colleges and teacher-training schools. During the coming year it is proposed to supply such equipment to another batch of 100 teacher-training schools throughout the country.

The Unicef also assists the States to the extent of 50 per cent for the in-service training of teachers for a limited period for teaching the new science programmes, and supplies paper for the printing of textbooks and other instructional materials. The catalytic effect of the Unicef approach is evidenced by the fact that apart from Unicef-assisted schools, four major States have planned to introduce the new science programmes on a universal basis covering nearly 1,00,000 primary and 24,000 middle schools.

3. 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 purpose of the scheme is to discover promising young students with an aptitude for science and provide them the academic and financial assistance up to the Ph. D. level. The three important aspects of the scheme are: (i) placement of selected scholars in institutions of quality all over the country; (ii) personal guidance programme where each of the scholars can get personal and educational guidance from the teachers of eminence they are allocated to; (iii) organisation of summer schools for the undergraduate scholars where the programme is mainly project-oriented and the summer programme for the postgraduate scholars which includes execution of a specially laid out project-oriented programme based on creative scientific abilities.

When the scheme was initiated, the competitive examination for selecting students was conducted in English only. This gave an edge to the candidates coming from big cities over those coming from rural areas. It was, therefore, felt that the competitive examination should be conducted in all the regional languages.

Beginning from the year 1969, the examination is now conducted in all the regional languages.

The number of awardees who availed themselves of the NSTS scholarships as in 1973-74 is as follows.

B.Sc.	586
M.Sc.	329
Ph.D.	154

Total: 1069

Under the scheme an effort is being made to develop tests for identifying scientific creativity among school children. Preliminary work on these tests has been completed and the try-out of the tests is being done. This new dimension has been added to the selection procedure of the scheme from 1973. Appendix 10 gives the full report on the scheme.

4. Pre-service and In-service Education of Teachers

In the field of pre-service education the Council continued to run the four Regional Colleges of Education of Ajmer, Bhopal, Bhubaneswar and Mysore, and the Central Institute of Education, Delhi.

The courses in these colleges are as follows:

1. B.A. B.Ed. in language RCE, Bhopal, Bhubaneswar, and Mysore
2. B.Sc. B.Ed. in Science All Regional Colleges
3. One-year B.Ed. All Regional Colleges and CIE, Delhi
4. M.Ed. RCE, Ajmer, Bhopal, Bhubaneswar and CIE
5. Summer-school-correspondence courses for B.Ed. All Regional Colleges

In the field of in-service education a large number of programmes continued to be provided during 1973-74 by the Summer Institute Cell, the Regional Colleges of Education and the various departments of the NIE.

The Summer Institute Cell of the NIE organized 99 Science Summer Institutes for teachers of secondary schools/PUC/Intermediate/Pre-degree Colleges in various States and Union Territories. These included the Unitary, Sequential ones for school teachers in Physics, Chemistry, Biology, Mathematics and General Science and Special Institutes for teacher-educators and resource persons to meet the new demands of science education. Over 3,200 teachers benefited from these Institutes. The Regional Colleges of Education organized as many as 12 Summer Institutes mainly for teacher-educators. Three of the Institutes were on Project Technology for secondary school teachers. Ninety-seven teachers participated and they were given instructions in the project work in various crafts so that work experience programmes could be introduced in the secondary schools. Other departments of the NIE organized three Summer Institutes in other educational fields, such as Programmed Learning, Applied Linguistics and Contemporary Problems in Children's Education. Appendix 9 gives details of training programmes.

5 Extension Programmes

A number of extension programmes were organized during 1973-74 by the various departments of the NIE and the Regional Colleges of Education for the benefit of secondary school teachers and the teacher-educators of both primary and secondary teacher-training institutions.

The Seminar Readings programme is a part of the extension work of the Council to help the professional growth of teachers. In this programme, teachers are encouraged to write about their innovative experiences for making teaching more effective or for adopting better techniques of teaching. The papers written by the teachers are screened at various levels. The best ones are received in the Council for an all-India assessment. The authors of the 30 best papers are given prizes and Certificates of Merit. They are also invited to the National Meet where these papers are read out by them and discussed with a group of specialists. The best papers are printed by the Council in the form of a book entitled *The Teacher Speaks*.

Another scheme of the Council which aims at the professional growth of teachers is called the scheme of Experimental Projects. In this scheme, the teachers are encouraged to take up small projects of action research. The Council provides them financial assistance and academic guidance for undertaking these projects.

The scheme of Experimental Projects is operated by the Regional Colleges of Education, as these colleges have staff who are well-versed in different regional languages of the States in their respective regions and also have subject experts and experts in pedagogy.

The Field Advisers of the Council also continued to provide academic guidance to the Extension Services Centres located in the teacher-training institutions of the country. Details about the activities of the Council in educational extension during 1973-74 are described in Appendix 9

6. Work Experience

Education is a powerful instrument of social, economic and political change. One of the means of achieving the national goals in India is to link education to productivity. This link can be forged by introducing work experience as an integral part of general education, particularly at the school stage, where the focus is on education for citizenship, formation of character and inculcation of correct values, attitudes and habits.

The Council has been working in this area for the last few years. A separate Work Experience and Vocationalization of Education Unit has been set up whose main functions are .

- (i) to develop and organise the programmes in work experience at the national level;
- (ii) to provide leadership in developing and executing pre-service and in-service teacher education programmes in this field;
- (iii) to develop curriculum materials in work experience.

The concept of work experience has been spelt out in a brochure brought out by the Council. This is a further improvement over the concept of socially useful productive work of basic education. The brochure analyses the recommendations of the Education Commission on work experience and concludes that the work experience is meaningful, educational, productive manual work provided as far as possible under real situations. The curriculum in work experience developed by the Council has been tried out during the year in the States of Andhra Pradesh, Mysore and in some schools of Kendriya Vidyalaya Sangathan.

Pilot projects have been started in certain districts of Kerala, Mysore and Haryana, by the respective State authorities. In collaboration with the Regional College of Education, Bhopal, a syllabus for one-year course in work experience was developed. Different experimental projects by the State authorities in U.P., Haryana, Madhya Pradesh and Maharashtra, Andhra Pradesh and Kerala were assisted by the Unit.

7 National Science Exhibition

A National Science Exhibition for Children was organised by NCERT at Teen Murti House, New Delhi, from 11 to 19 November 1973, in collaboration with the Jawaharlal Nehru Memorial Fund.

Contributions for the exhibition were received from almost all the States. The exhibition attracted a large number of students, teachers, teacher educators and educational administrators.

A similar State-level science exhibition was organised at Anand Bhavan, Allahabad in collaboration with State Education Department, Uttar Pradesh.

8. Contacts with the States

As in the previous years, the Council continued to help the State Departments of Education, State Boards of Secondary Education and other State educational agencies on matters relating to the qualitative improvement of school education. In particular, the State Departments of Education took advantage of the Council's expertise in the fields of modernisation of school curricula, preparation of textbooks, examination reform, etc. NCERT, and the States worked together on several major programmes of the Council.

The first one is the Unesco/Unicef-assisted science teaching project. During 1973-74 the Council continued to work closely with almost all the States and Union Territories in implementing this project on a wider scale. With the changed policy of the Unicef the assistance for wider implementation will hereafter be limited to the primary stage and such middle schools which have already taken up the project during 1973. The States made use of the new science syllabi, instructional materials and science kits produced by the Council. The Council also provided assistance to the States by way of training their key personnel.

The second major programme of the Council promoting collaboration with States is in the field of Examination Reform. Several States and Union Territories have sought and received technical help from NCERT for developing and implementing their programmes of examination reform. Organization of training and extension programmes at State and National level, development and dissemination of investigation results, conceptual literature, sample evaluation materials and items for test pool were some of the achievements in this area. Also, the States of Rajasthan and Tamil Nadu developed, with the help of NCERT, evaluation tools for assessing various aspects of pupil growth; procedures for using the tools and the results of assessment for diagnosis and for promoting future growth. A number of courses for paper-setters were organised during the year in States of Punjab, Manipur, Tamil Nadu, Gujarat and Uttar Pradesh

The third programme of the Council promoting collaboration with States is the crash programme for evaluation of textbooks, from the standpoint of national integration, which was started in 1972. Most of the State Governments extended their cooperation and assistance in this work. A mechanism was evolved for placing the evaluation reports before an Expert Committee constituted by the Council. According to the recommendations of the Expert Committee, about 2% of the textbooks need to be withdrawn from further use and about 22 to 30% of the books contain material which either has to be deleted or re-written. These recommendations have by and large been implemented by the State Governments. During the year, the scheme has been further extended to cover textbooks used in English-medium schools. Over 3,000 textbooks are involved in this programme. A pilot project covering textbooks used in four English-medium schools of Delhi has been completed. Based on this, the main project will be taken up covering all States.

The fourth programme which has helped in bringing the Council and the States closer is the setting up of the Offices of Field Advisers of the Council in different States. These officers are mainly responsible for keeping liaison between the Council and the States or groups of States. The Field Advisers bring to the notice of the concerned Departments of the National Institute of Education and Regional Colleges of Education the problems faced by the States in which they are working for purposes of study and for finding out solutions to them. They also disseminate to the States the findings of studies and the materials produced by the various

constituent units of the Council. To provide academic guidance to the Extension Services Centres and other State level agencies concerned with the qualitative improvement of school education is another major responsibility of the Field Advisers

At present, nine offices of the Field Advisers are functioning in different States. Some of them are responsible for a group of States. A decision has been taken to set up six more offices so that each of the major State has an office of the Field Adviser. The ultimate goal of the Council is to establish one Field Office in each State of the country. It is heartening to note that some of the States have suitably modified their programmes in the light of academic guidance rendered by the Council's Field Advisers.

Details of collaboration between NCERT and the State Governments/Union Territories during 1973-74 are given in Appendix 16.

9. Third All-India Educational Survey

One of the major highlights of the year under report is the Third All-India Educational Survey undertaken by the Ministry of Education and Social Welfare. NCERT has been entrusted to undertake the survey at the school level. Further, it is also to coordinate the work of Third Survey in so far as it relates to other agencies which are responsible for organising different areas of survey.

The main objectives of the survey in the area of school education are to collect up-to-date data and information which may be helpful for planning and policy-making during the Fifth Five Year Plan and for taking administrative decisions scientifically on important educational issues. These data should also be useful in determining trends and relationship, gaps and imbalances, and for making comparisons. The survey is to update the data of earlier survey in terms of the distribution and size of habitations, delimit areas of all types of schools and to collect data needed for developing District Development Plans. It is also to study intensively the existing facilities on certain significant variables such as libraries, audio-visual aids, laboratories, age-distribution and other qualitative aspects of education.

NCERT has prepared as many as 12 schedules for making the survey, and organised a training course for State Survey Officers who are responsible for conducting the survey in the States. The relevant instructions were developed and the training programme was followed up by contracting the educational

authorities for taking immediate necessary action in organising the survey. All technical and academic guidance was provided to the States and a sample check as well as scrutiny of data collected by the States was also made. Apart from the schedules to be canvassed at the school level, six different types of information blanks were developed for collecting data for different types of agencies and institutions. The Council coordinated the work of the Survey with the other four agencies responsible for organising the survey, viz, University Grants Commission, Institute of Applied Manpower Research, National Staff College and Cultural Department in the Ministry of Education. It specially collaborated with the National Staff College and the Institute of Applied Manpower Research in developing their schedules and providing field assistance in respect of educational administration and Inspection, and technical and vocational education respectively.

10. Centre for Educational Technology (CET)

The Centre has been set up and has started functioning as one of the institutions of NCERT.

A Managing Committee has been constituted to look after the work of the Centre. The Director, NCERT, concurrently holds charge of the post of Director of CET and Chairman of the Managing Committee of the Centre. Apart from experts in the field of educational technology, the Ministry of Education, the Ministry of Finance and All India Radio are also represented on the Managing Committee. The Managing Committee has been authorised to set up several sub-committees for dealing with different problems. In such sub-committees, representatives other than those who are members of the Managing Committee can also be invited to serve.

As regards functioning of the Centre for Educational Technology, the Centre is concerned with the development of innovations in education both in terms of software for use of the new media for education and developing systems and new structures to overcome problems at all levels and in all its aspects. Thus, it has to deal with pre-primary, primary, secondary and university education, out-of-school education, continuing education, adult education, etc. The Centre has also to be concerned with training and orientation of teachers, testing hardware and appropriate technology for education, evaluation of materials, designing of systems and their revision on feedback, and building an Information Bank on Educational Technology.

In the initial stages research and service functions have been taken up. The Centre is working in close cooperation with the Ministry of Education and Social Welfare, University Grants Commission, various departments of the NIE, the Regional Colleges of Education and such other organisations as are concerned both directly and indirectly with the utilisation of educational technology.

11 Fifth Five Year Plan of NCERT

The draft Fifth Five Year Plan of the Council was initiated in the previous year. Much preparatory work was done by way of developing guidelines for the various constituent units of the Council. In these guidelines the role of NCERT was envisaged in reference to qualitative improvement of school education and an outline of programmes and priorities with reference to the role presented in the working paper of the Ministry of Education and Social Welfare entitled "Education in the Fifth Five Year Plan". It was felt that education has to be deeply involved in the socio-economic transformation of our country. Education is also an instrument for training and for preparing the personnel required for all facets of a modern technological society and further important task is to develop new knowledge for more effective utilisation of our human and material resources and for the cultural advancement of the people. The fifth plan of the NCERT tries to translate these statements of social goals and policy into practical and achievement terms through:

- (1) Organisation of widespread consultation of new curriculum and production of instructional materials, laboratory materials, kits, films and other educational material for use in schools and out-of-school system.
- (2) Concrete steps to orient teachers for the new materials and approaches to education through varieties of programmes.
- (3) Organising participation of a wide spectrum of educational personnel to give practical shape to the notions of work experience, vocationalisation, non-formal education and thereafter produce suitable materials and reports on these subjects and develop implementational models in each case.

- (4) Developing the concept of community school where the school provides multiform education with the assistance of the members of the community and through unification of the efforts of various agencies dealing with the community development.
- (5) Undertaking and assisting other institutions and individuals to take up serious educational research which may help to unravel the mysteries of learning experiences and achievement by individuals, thus providing a sound basis for curriculum and structure of education of the future.
- (6) Dissemination of the results of research in the country and abroad and have a vast fund of educational thinking and materials developed in the States so that optimum fulfilment of the purposes and objectives of social advancement is achieved.

A number of steps were taken in the meeting of the Executive Committee in February 1974 to modify the internal structure of NCERT. The basic approach has been that the Departments at the NIE and RCEs be given a wider scope of activity with relatively greater freedom to work, so that the academics could take initiative and pursue creative work, both collectively and individually.

A new committee called the Educational Research and Innovation Committee headed by a Dean of Research has been formed to examine the research and development projects of the various departments and institutions of NCERT on an all-India competitive scale and to give helpful suggestions for improving these projects. The Committee would also provide funds for research projects submitted by Universities, State Institutes of Education, by individuals and institutions outside the NCERT system after proper evaluation. The Committee will also examine the entire area of educational development and designate priority problems which require investigation in particular in order to assist the programmes of the Council and the Government of India.

A unit called Policy Planning and Evaluation Unit has been visualised to maintain information and documentation on all academic problems conducted by various constituent units of the Council, State and Central Government level as well as at international level. The Unit will also monitor the progress of various plan schemes of NCERT so as to bring difficulties and deficiencies, etc.,

to the notice of authorities for timely corrective action. It will also prepare position papers and studies in relevant fields for use in national/international conferences and seminars and for use by other agencies/authorities.

The main emphasis of the Council's work in the fifth plan period will be on improving and developing instructional materials in all school subjects for the new 10+2 pattern.

The universalization of primary education for the age-group 6 to 11 will receive top priority not only at the national level but also at each level from the State downward to the Talukas.

Particular attention will be paid on the problems of girls' education, tribal education, education of backward communities and experiments with new methods and techniques like multiple entry and introduction of part-time education. Emphasis will be laid on non-formal education through involvement of the community, teachers' associations and others. NCERT will develop pilot plans with a view to implementing these on a larger scale.

In the matter of work experience the main emphasis will be on developing operational plans, a procedure of work experience on the basis of experimentation, and try out in the field for the introduction of the work experience in the schools. Curricular materials in the form of work books, teachers' guides, source books, etc., will be developed and orientation programmes for key personnel in the States will be organised. For vocationalisation of education the recommendations of the Expert Committee on Curriculum will be followed for developing instructional and other materials. These will be tried out in cooperation with the Regional Colleges of Education.

The National Science Talent Search Scheme has been in operation for quite some years. During the fifth plan it is proposed to have a scheme on the Talent Search in the areas of Social Sciences and Humanities, Medicine and Engineering. A strong research and development wing will be developed where steps will be taken to improve the process of selection, the reliability and validity of tests, and for tackling other problems of identifying and nurturing talented pupils. Provision has also been made for the preparation and introduction of tests in scientific creativity in the selection tests of National Science Talent Search Scheme and for pilot project of talent search in other areas.

The Third All-India Educational Survey will be completed in the fifth plan period and sample surveys on various aspects of school education will also be taken up. It is proposed to build a data bank and take up the processing of data relating to research undertaken by different departments of the NIE.

For effective realisation of the roles as outlined above, NCERT will work in close collaboration with the State Departments of Education, State Institutes of Education, State Institutes of Science Education, State Boards of Secondary Education and other State level agencies concerned on the qualitative improvement of school education.

12 Receipts and Expenditure

During the year 1973-74, a grant of Rs. 2,47,42,000 was released by the Government of India for meeting the expenditure on the establishment of NCERT including Regional Colleges of Education, Central Institute of Education, Field Units and on various programmes. Besides, the balance of Rs. 39,99,339 left at the end of 1972-73 was also allowed to be carried over towards 1973-74. In addition, the Council had a small income of Rs 31 lakhs from the sale of publications, etc.

As against an expenditure of Rs. 3 10 crores in 1971-72 and Rs. 3 15 crores in 1972-73, an expenditure of Rs 3 0537 crores was incurred on different activities of the Council in 1973-74. Out of this Rs 90 00 lakhs was incurred for the Regional Colleges of Education, Rs 8 97 lakhs on the Central Institute of Education, and Rs. 24 62 lakhs on the purchase of paper and printing of publications, etc. An expenditure of Rs. 11.87 lakhs is accounted for the payment of scholarships, etc., to the National Science Talent Search Scholars. An expenditure of Rs 106 36 lakhs has been incurred on various Departments and Rs. 63 55 lakhs for the NCERT Headquarters including Publication Unit and Field Offices in States.

A sum of Rs. 23.23 lakhs was also spent on the conduct of All India Educational Survey out of the main grant of the Council as no specific grant was released by the Government.

The detailed statement showing consolidated Receipts and Payments Account for the year 1973-74 (provisional) is given in Appendix 3.

13. Staff

Shri M. C. Verma relinquished his charge as Secretary on 30 June 1973 (afternoon).

Consequent upon Prof S V.C. Aiya having relinquished the charge of the post of Director, NCERT, w e f 31 March 1973 (afternoon), the current duties of the Director were performed by Dr Shub K Mitra, Joint Director of the Council till Prof. Rais Ahmed joined as the new Director on 10 January 1974 (forenoon).

Smt. J. Anjani Dayanand, I.A S., took charge as Secretary on 4 March 1974 (forenoon).

The recruitment rules and eligibility conditions for administrative, ministerial, accounts cadres and for Class IV posts, as also for posts in the Library and Publication Unit were framed and promulgated after approval of the Executive Committee A Principal of a Regional College of Education, a Public Relation Officer, one Librarian, two Production Assistants, two P.G. Teachers and three other staff members were recruited during the year.

Under Regulation No. 10 of the Council one representative each from Regional Colleges of Education and the National Institute of Education were nominated by the President of the Council to the Establishment Committee of the Council

The new Regulation No. 63 now provides freedom to the staff of the Council to contribute research papers and technical articles to professional, scientific and technical journals and to accept remuneration not exceeding Rs 2,000 in any financial year for their contributions This Regulation encourages professional growth of the academic staff of the Council and also leads to the growth of the institution itself.

14. Publications

The Council brings out a variety of publications in the form of textbooks, students' workbooks, teachers' guides, curriculum guides, supplementary reading materials, year books, research monographs, journals, etc. Its publications have been well-received not only in this country but also abroad The country-wide demand for NCERT textbooks as well as other publications leads to a sizeable sale annually. This year about Rs. 31 lakhs was realised from the sale of publications. To meet the demand of NCERT publications from all over the country, it has been decided to appoint an Expert Committee to advise the reorganisation of the Publication Unit.

The pricing of the publications of the Council is done on a no-profit-no-loss basis. A small margin above the actual cost is maintained to meet overhead charges and also to allow discount to the booksellers. Yet the publications of the Council, particularly the textbooks are the cheapest available in the market. The Council also brings out a number of unpriced publications such as reports of educational conferences, instructional materials for teachers, etc., for free distribution.

The *NIE Newsletter* renamed in 1972 as *NCERT Newsletter* continues to publicise the activities of all the constituent Units of the Council.

A classified list of 116 NCERT publications released during 1973-74 is given in Appendix 19. An up-to-date list of the Council's textbooks adopted/adapted/translated by the various State Governments/Union Territory Administrations and other agencies may be seen in the Annexure to Appendix 19.

Details in respect of the following subjects are furnished in the Appendices mentioned against each:

Membership of the Council and its Committees	Appendix 1
Summary of Minutes of the Meetings of the Council and its Committees held during 1973-74	Appendix 2
Statement of Accounts of NCERT for 1973-74	Appendix 3
Development of Campuses	Appendix 4
NIE Library	Appendix 5
Curriculum Development	Appendix 6
Research Studies	Appendix 7
Training Programmes	Appendix 8
Field and Extension activities	Appendix 9
National Science Talent Search Scheme	Appendix 10
Examination Reform	Appendix 11
National Integration Project	Appendix 12
Population Education	Appendix 13
Grants to Professional Educational Organisations	Appendix 14
Grant-in-aid for Approved Research Projects (GARP)	Appendix 15
Collaboration with the States	Appendix 16
Collaboration with the Ministry of Education and Social Welfare	Appendix 17
International Collaboration	Appendix 18
Publications	Appendix 19

ACKNOWLEDGEMENTS

The Council feels indebted to the Union Minister for Education and Social Welfare for evincing a keen interest in its affairs. The Council also expresses its gratitude to all the staff of the Ministry of Education and Social Welfare for extending several facilities to it from time to time during the year under report. The Council is grateful to several individuals who spared their valuable time to serve on its committees and extended help in many other ways. Thanks are also due to several organisations and institutions and especially the State Departments of Education for their unstinted cooperation with the Council in carrying out its activities. The Council also expresses its gratefulness to the Unesco, the Unicef, the UNDP, the British Council, the CEDO, and the Governments of the USSR, the United Kingdom and the German Democratic Republic for the assistance they rendered in one form or the other.

A p p e n d i c e s

APPENDIX 1

Membership of the Council and its Committees

A. The Council

1 Prof S Nurul Hasan Union Minister of Education and Social Welfare Shastri Bhavan New Delhi (President)	Representatives of State/Union Territory with legislature
2 Dr G Jacob Chairman University Grants Commission Bahadurshah Zafar Marg New Delhi	8 Education Minister Andhra Pradesh Hyderabad
3. Secretary to the Government of India Ministry of Education and Social Welfare Shastri Bhavan New Delhi	9. Education Minister Assam Gauhati
Vice-Chancellors nominated by the Government of India	10 Education Minister Bihar Patna
4 Shri Gopal Tripathi Vice-Chancellor Lucknow University Lucknow	11. Education Minister Gujarat Ahmedabad
5. Shri M. M Ghani Vice-Chancellor Calicut University Calicut	12. Education Minister Haryana Chandigarh
6 Dr. R. Mohanty Vice-Chancellor Utkal University Bhubaneswar	13. Education Minister Himachal Pradesh Simla
7 Shri N. K. Vakil Vice-Chancellor The Maharaja Siyajirao University of Baroda Baroda	14. Education Minister Jammu & Kashmir Srinagar
	15 Education Minister Karnataka Bangalore
	16. Education Minister Kerala Trivandrum
	17 Education Minister Madhya Pradesh Bhopal

18. Education Minister
Maharashtra
Bombay
19. Education Minister
Manipur
Imphal
20. Education Minister
Meghalaya
Shillong
21. Education Minister
Nagaland
Kohima
22. Education Minister
Orissa
Bhubaneswar
23. Education Minister
Punjab
Chandigarh
24. Education Minister
Rajasthan
Jaipur
25. Education Minister
Tamil Nadu
Madras
26. Education Minister
Tripura
Agartala
27. Education Minister
Uttar Pradesh
Lucknow
28. Education Minister
West Bengal
Calcutta
29. Chief Executive Councillor
Delhi Administration
Delhi
30. Education Minister
Government of Mizoram
Ajawal
31. Education Minister
Goa, Daman & Diu
Panaji
32. Education Minister
Government of Pondicherry
Pondicherry

Members of the Executive Committee

33. Prof. D P. Yadav
Deputy Minister
Ministry of Education and
Social Welfare
New Delhi
34. Prof. Rais Ahmed
Director, NCERT
New Delhi
35. Prof. M. V. Mathur
Director-General
National Council of Applied
Economic Research
New Delhi
36. Prof. S.V.C. Aiyar
59/4 Park Street
I Block East
Jayanagar
Bangalore
37. Shri M.N. Kapoor
Principal
Modern School
Barakhamba Road
New Delhi
38. Shri D.S. Narula
Principal
Kendriya Vidyalaya
Hathibarkala
Dehra Dun
39. Dr. Shri K. Mitra
Joint Director, NCERT
New Delhi
40. Dr. (Smt) Perin H. Mehta
Head of the Department of
Educational Psychology and
Foundations of Education
NCERT
New Delhi
41. Dr. G. B. Kanungo
Principal
Regional College of Education
Bhopal
42. Dr. G. S. Shrikantia
Professor
NCERT
New Delhi

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| <p>43. Shri T R. Jayaraman
Joint Secretary
Ministry of Education and
Social Welfare
Shastri Bhavan
New Delhi</p> <p>44. Shri S Venkataraman
Financial Adviser
(NCERT)
Ministry of Finance
South Block
New Delhi</p> <p>Nominated by the Government of
India</p> <p>45. Smt V. Koteswaramma
Principal
Children's Montessori
High School
Vijayawada</p> <p>46. Shri Gurdial Singh Jassal
Headmaster
Government High School
Abohar</p> <p>47. Shri M D. Kulkarni
Principal
Dharamaprakasa Sreenivasiah
High School
Scheme 6
Road No. 24 (C)
Sion (West)
Bombay</p> <p>48. Shri Gobindan Chandra Saha
Headmaster
Tufanganj Town Primary
School
P.O. Tufanganj
District Cooch Behar</p> | <p>49. Shri M. Mari Raj
Director of Public Instruction
Mysore
Post Box No. 49
Bangalore</p> <p>50. Shri L N Gupta
Director of Education
(Primary and Secondary)
Bikaner</p> <p>51. Shri Prakash Chand
Secretary (Education) to the
Himachal Pradesh Government
Simla</p> <p>52. Dr. A U. Shaikh
Secretary
Education Department
Government of Maharashtra
Sachivalaya
Bombay</p> <p>53. Km A Chari
Commissioner
Kendriya Vidyalaya
Sangathan
Nehru House
4, Bahadur Shah Zafar Marg
New Delhi</p> <p>54. Prof. B. Venkataraman
Tata Institute of Fundamental
Research
Homi Bhabha Road
Bombay</p> <p>55. Smt J Anjani Dayanand
Secretary, NCERT
New Delhi
<i>(Secretary)
Ex-Officio</i></p> |
|---|--|

B. Executive Committee

- | | |
|--|---|
| <p>1. Prof. S. Nurul Hasan
Union Minister of Education
and Social Welfare
New Delhi
<i>(President)</i></p> <p>2. Prof. D P. Yadav
Deputy Minister
Ministry of Education and
Social Welfare
New Delhi</p> | <p>Ex-Officio</p> <p>3. Prof. Rais Ahmed
Director
NCERT
New Delhi</p> <p>4. Dr. George Jacob
Chairman
University Grants Commission
New Delhi</p> |
|--|---|

5. Dr. Shib K. Mitra
Joint Director, NCERT
New Delhi

**Four Educationists nominated by
the President, NCERT**

6 Prof. M. V. Mathur
Director-General
National Council of Applied
Economic Research
New Delhi

7. Prof. S V C. Aiya
No. 59
First Block East
Jayanagar
Bangalore

8. Shri D. S. Narula
Principal
Kendriya Vidyalaya
Hathubarkala
Dehra Dun

9 Shri M. N. Kapur
Principal
Modern School
Barakhamba Road
New Delhi

**Faculty of the Council nominated by
the President, NCERT**

10 Dr. (Smt.) Perin H. Mehta
Head of the Department of
Educational Psychology and
Foundations of Education
NCERT
New Delhi

11 Dr G B Kanungo
Principal
Regional College of
Education
Bhopal

12 Dr G.S Shrikantia
Professor
NCERT
New Delhi

**Representative of the Ministry of
Education and Social Welfare**

13. Shri T R. Jayaraman
Joint Secretary
Ministry of Education and
Social Welfare
New Delhi

**Representative of the Ministry of
Finance**

14 Shri S Venkataraman
Financial Adviser
(NCERT)
Room 48-A,
G Floor
Ministry of Finance
South Block
New Delhi

15. Smt. J. Anjani Dayanand
Secretary, NCERT (*Secretary*)
Ex-Officio

C. Finance Committee

1. Prof. Rais Ahmed
Director
NCERT
New Delhi

2. Shri T.R. Jayaraman
Joint Secretary

Ministry of Education and
Social Welfare
New Delhi

3 Prof. M V. Mathur
Director-General
National Council of Applied
Economic Research
New Delhi

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|---|---|---|
| 4 | Shri M. N Kapur
Principal
Modern School
Barakhamba Road
New Delhi | Room No. 48-A,
Ground Floor
South Block
New Delhi |
| 5 | Shri S. Venkataraman
Financial Adviser
(NCERT) | 6. Smt. J. Anjani Dayanand
Secretary
NCERT
<i>(Secretary)</i>
<i>Ex-Officio</i> |

D. Programme Advisory Committee

- | | | |
|----|---|---|
| 1 | Prof. Rais Ahmed
Director
NCERT
<i>(Chairman)</i> | Bangalore University
Bangalore |
| 2. | Dr. Shib K. Mitra
Joint Director
NCERT | 8 Dr V.B Taneja
Director
State Institute of Education
Haryana
Gurgaon |
| 3 | Dr K Kumaraswami Pillai
Head, Department of
Education
Annamalai Nagar
Tamil Nadu | 9. Smt. O. Joshi
Director
State Institute of Education
Rajasthan
Udaipur |
| 4. | Dr. K P Pande
Dean
Faculty of Education and
Director of Correspondence
Course
Himachal University
Simla | 10. Shri J P. Vyas
Director
State Institute of Education
Madhya Pradesh
Jahangirabad
Bhopal |
| 5 | Dr. V K. Kothurkar
Head
Department of
Experimental Psychology
Poona University
Poona | 11 Shri D. Panigrahi
Director
State Institute of Education
Orissa
Bhubaneswar |
| 6 | Dr. R B Mathur
Head
Department of Education
Lucknow University
Lucknow | 12 Smt N. Shanmugasundaram
Director
State Institute of Education
Tamil Nadu
6 Vaidyanathayen Street
Nungambakkam
Madras
Tamil Nadu |
| 7 | Dr N V. Thirtha
Prof and Head
Department of Post-
Graduate Studies in
Education | 13 Prof P D. Sharma
Head
Department of Textbooks
NCERT |

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|-----|--|--|
| 14 | Dr. (Smt) Perin H. Mehta
Head
Department of Educational
Psychology and
Foundations of Education
NCERT | Documentation and
Information Service
NCERT |
| 15. | Prof. J. K. Shukla
Principal
Regional College of
Education
Ajmer | 23. Dr. (Km) S Dutt
Acting Principal
Central Institute of Education
Delhi |
| 16. | Dr. R. C Das
Principal
Regional College of Education
Bhubaneswar | 24 Prof C.V Govinda
Acting Principal
Regional College of
Education
Mysore |
| 17. | Dr. A. N. Bose
Professor and Acting Head
Department of
Science Education
NCERT | 25. Dr. G. B. Kanungo
Acting Principal
Regional College of Education
Bhopal |
| 18. | Shri T S. Mehta
Acting Head
Department of Social
Sciences and Humanities
NCERT | 26 Shri D S Rawat
Incharge
Department of Pre-Primary
and Primary Education
NCERT |
| 19. | Shri Shankar Narayan
Incharge
Department of Teaching Aids
NCERT | 27. Dr. (Km) E. Marr
Professor
Regional College of Education
Bhubaneswar |
| 20. | Shri N. Chakravarty
Incharge
Publication Unit
NCERT | 28 Dr G S. Shrikantia
Professor
Regional College of Education
Ajmer |
| 21. | Dr. R G. Misra
Incharge
Data Processing and
Educational Survey Unit
NCERT | 29 Dr A N Sharma
Reader
Department of Educational
Psychology and
Foundations of Education
NCERT |
| 22 | Shri S. N. Saha
Incharge
NIE Library, | 30 Shri B N. Pandey
Field Adviser
Department of Teacher
Education
NCERT |

E. Publication Advisory Committee

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|----|-------------------|------------|---|--|
| 1. | Dr S Gopal | (Chairman) | 3 | Shri S C Rajkhowa |
| 2 | Shri D R Mankekar | Journalist | | Vice-Chancellor
Gauhati University
Gauhati |

4. Shri K L. Bordia
Rajasthan Board of
Secondary Education
5. Smt Sajjida Zamir Ahmed
Director of Public
Instruction
Jammu & Kashmir
6. Shri S Narayan Iyer
State Institute of Education
Trivandrum
(Representative of the
Government of Kerala)
7. Shri V V. Chiplunkar
Director
State Institute of Education
Poona

**Members Nominated by the
Programme Advisory Committee**

- 8 Dr. K P Pande
Himachal Pradesh University
Simla
- 9 Shri D Panigrahi
Director
State Institute of Education
Bhubaneswar
10. Shri N. Chakravarty
Incharge Head
Publication Unit
NCERT
New Delhi
11. Shri S.N Saha
Principal
Regional College of Education
Mysore

F. Science Programme Advisory Committee

1. Prof. Rais Ahmed
Director, NCERT
New Delhi
2. Prof. A.M. Ghose
Head
Department of Physics
and Biophysics
Bose Institute
93/1, Acharya Prafulla
Chandra Road
Calcutta
3. Dr. Anil Sadgopal
Kishore Bharati
Near Bankhedhi
District Hoshangabad
(M.P.)
4. Dr. J.N. Kapur
Vice-Chancellor
Meerut University
Meerut
- 5 Dr. C S. Jha
Department of Electrical
Engineering
Indian Institute of
Technology
Hauz Khas
New Delhi
6. Dr N. P. Gupta
Director
Virus Research Centre
Indian Council of Medical
Research
20-A, Wellesley Road
P O Box No 11
Poona
7. Prof. R. C. Mehrotra
Department of Chemistry
University of Rajasthan
Jaipur
(Rajasthan)
- 8 Prof Sivatosh Mookerjee
Dean, School of Life Sciences
Jawaharlal Nehru University
New Mehrauli Road
New Delhi
- 9 Prof A R Vasudeva Murti
Department of Inorganic and
Physical Chemistry
Indian Institute of Science
Bangalore
10. Prof M.R.N Prasad
Department of Zoology
University of Delhi
Delhi

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| <p>11. Prof. G. S. Shrikantia
Professor, NCERT
New Delhi</p> <p>12. Prof. Yash Pal
Director
Space Applications Centre
Indian Space Research
Organization
Ahmedabad</p> <p>13. Prof Raghbir Singh
Punjab Agricultural
University
Department of Extension
Education
Ludhiana
(Punjab)</p> <p>14. Km N.Z. Zaidi
P G T. Biology
Kendriya Vidyalaya, SRC
Meerut Cantt. (U P.)</p> <p>15. Shri B G. Pitre
Senior Science Master
The Doon School
Dehra Dun (U P.)</p> | <p>16 Prof. M. Santappa
Director
Central Leather
Research Institute
Madras
(Tamil Nadu)</p> <p>17 Prof B. D Nag Chaudhuri
Scientific Adviser to the
Government of India
Ministry of Defence
South Block
New Delhi</p> <p>18 Dr. J. Dhar
Principal Scientific Officer
Department of Science and
Technology
Technology Bhavan
New Delhi</p> <p>19. Dr. AN. Bose
Head, Department of Science
Education, NCERT
New Delhi</p> |
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G. Building and Works Committee

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|--|---|
| <p>1. Prof. Rais Ahmed
Director, NCERT
New Delhi (Chairman)</p> <p>2. Dr. Shib K. Mitra
Joint Director, NCERT
New Delhi</p> <p>3. Shri B V. Kulkarni
Superintending Surveyor
of Works (I)
Central Public
Works Department
Nirman Bhavan
New Delhi</p> <p>4. Shri Meher Singh
Assistant Financial Adviser
Ministry of Finance (Works)
Nirman Bhavan
New Delhi</p> | <p>5. Shri K M. Saxena
Senior Architect (I)
CPWD (Consulting
Architect of the Council)
Nirman Bhavan
New Delhi</p> <p>6. Shri S. Venkataraman,
Financial Adviser (NCERT)
Ministry of Finance
Room No. 48-A
G. Floor
South Block
New Delhi</p> <p>7. Shri T R. Jayaraman
Joint Secretary
Ministry of Education and
Social Welfare
Shastri Bhavan
New Delhi</p> |
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| <p>8. Shri I. C. Sanger
Deputy General Manager
Delhi Electric Supply
Undertaking
Raj Ghat Power House
New Delhi</p> <p>9. Shri S. M. Hasnain
Executive Engineer (Bldg)
Municipal Corporation of
Delhi</p> | <p>Town Hall
Delhi</p> <p>10. Prof. Shanti Narayan
Dean of Colleges
University of Delhi
Delhi</p> <p>11. Smt. J. Anjani Dayanand
Secretary, NCERT
New Delhi (<i>Member-Secretary</i>)</p> |
|---|---|

H. Establishment Committee

- | | |
|---|---|
| <p>1. Prof. Rais Ahmed
Director
NCERT
New Delhi (<i>Chairman</i>)</p> <p>2. Dr Shib K. Mitra
Joint Director
NCERT
New Delhi</p> <p>3. Shri T. R. Jayaraman
Joint Secretary
Ministry of Education and
Social Welfare
New Delhi</p> <p>4. Shri S. Venkataraman
Financial Adviser (NCERT)
Ministry of Finance
Room No. 48-A
G. Floor
South Block
New Delhi</p> <p>5. Prof. B. Venkataraman
T.I.F.R. Homi Bhabha Road
Bombay</p> <p>6. Prof. M. V. Mathur
Director-General</p> | <p>National Council of Applied
Economic Research
New Delhi</p> <p>7. Prof. S.V.C. Aiya
59, 1st Block East
Jayanagar
Bangalore</p> <p>8. Dr. S. Salamatullah
Principal
Jamia Millia Islamia
New Delhi</p> <p>9. Prof. G. B. Kanungo
Principal
Regional College of
Education
Bhopal</p> <p>10. Dr. (Smt.) Perin H. Mehta
Head
Department of Educational
Psychology and Foundations
of Education, NCERT
New Delhi</p> <p>11. Smt. J Anjani Dayanand
Secretary, NCERT
New Delhi (<i>Member-Secretary</i>)</p> |
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APPENDIX 2

Summary of Minutes of the Meetings of the Council and its Committees held during 1973-74

Council's Meeting

The General Body of the Council met on 22nd December, 1973. It approved Annual Report for 1972-73 and accepted the audit report for 1970-71 and the Statements of Accounts

While discussing the annual report the committee gave certain valuable suggestions in respect of production and evaluation of textbooks, improvement of National Science Talent Search and on Work Experience. It also approved in principle the reports on All India Educational Survey and National Integration Panel.

Executive Committee

The Executive Committee of the Council met three times during the year on 6 July 1973, 23 October 1973 and 12 February 1974. A summary of the important decisions taken in these meetings is given below.

(i) The National Science Talent Search rates were revised as follows:

- (a) Rs. 150 per month for under-graduates.
- (b) Rs. 250 per month for post-graduates.
- (c) Rs. 350 per month for Ph.D. scholars

(ii) The recruitment rules for ministerial, administrative and Accounts staff and for Publication Unit were approved.

(iii) The principle of continuous evaluation of all school textbooks was accepted.

(iv) It was agreed to appoint new offices of Field Advisers in all States to maintain liaison between the State governments and the Council and, to keep the Council posted with up-to-date information and figures in relation to educational matters. The Committee also agreed to the appointment of a small committee by the Director to follow the working of the Field Offices.

(v) The proposal to extend the jurisdiction of central vigilance commission to the Council was not accepted.

(vi) The proposal for the implementation of the scheme for adopting multiple entry and introduction of part-time education at the primary stage (age-group 6-14 years) in the Fifth Plan was approved.

(vii) Re-organisation and strengthening of the Publication Unit was approved to enable it to produce and supply textbooks on a mass scale to meet the demands from all quarters from the Academic Session 1974.

(viii) The proposals of visits of selected teachers from primary and secondary schools of States/Territories to the NCERT was approved provided the money was found within the sanctioned budget provision for the year.

(ix) The appointment of an officer on Special Duty to examine the disputed seniority list of the ministerial staff to NCERT was approved

(x) The model study leave rules prepared by UGC should apply to the academic staff of the NCERT.

(xi) The NIE was restructured with 5 academic departments, 4 service/production departments and some units for special projects/programmes. Each Department shall have an Advisory Board consisting of all the staff working in the grade of lecturer and above and 5 Experts in the concerned field of work.

An Academic Committee and Co-ordination Committee have also been constituted to coordinate the programmes of the Academic and Service/Production Departments of the NIE.

(xii) An Educational Research and Innovation Committee has been constituted to identify, plan, organise and support basic research and innovations within the Council and outside.

(xiii) A task force is to be set up immediately to develop guidelines, strategies and outline plans of Work Experience and Vocationalisation of secondary education.

(xiv) Appointments to the posts of Professors, Readers and Lecturers be made by the President, NCERT on the recommendation of the Director, NCERT and, to other posts by the Director, NCERT himself.

(xv) Authorised the President to approve on its behalf the applicability of the decision of the Government of India on the Third Pay Commission relating to civilian employees of the Central Government for Class I posts as and when taken, to the officers of the Council holding similar or corresponding posts

(xvi) Authorised the President to approve on its behalf the decision of the Government of India on the recommendations of the UGC relating to pay scales and other recommendations for lecturers, readers and professors in the Central Universities for implementation in respect of the employees of the Council holding similar posts.

(xvii) Pending issue of final orders by the Government of India relating to revision of rates of HRA on the basis of revised scales of pay in terms of Pay Commission's recommendations, the HRA will be allowed to Class II, III, and IV employees of the NCERT at the same quantum as was allowed to them for January, 1974, subject to the relevant conditions for the grant remaining unchanged.

(xviii) Qualifications for the academic posts of Professors, Readers and Lecturers in the NIE and Regional Colleges of Education were approved.

(xix) Age limit for direct recruitment of class III ministerial non-gazetted posts was approved to be raised to 25 years

(xx) Continuation of Summer School-cum-Correspondence Course leading to B Ed. degree in the four Regional Colleges of Education was

approved for 1974-75, and it was decided to get the courses evaluated by outside experts in 1974-75 for considering the desirability of further extension beyond 1974-75.

It was agreed that when the date of superannuation of a meeting of academic staff falls on or after 1st of October, the question of extension of service may be considered on its merit up to 30th June with the approval of the President, NCERT.

The draft Annual Report was considered and certain amendments suggested which were incorporated

(xxi) Audit Report of the Council for the year 1970-71 was accepted and it was decided that the committee should be informed of the action taken on Finance Committee's observations.

(xxii) A calendar of meetings was approved.

(xxiii) The report of the Committee of experts appointed by the President on the recommendations of Batuk Singh's committee was considered and the main recommendations were agreed to

(xxiv) Two draft resolutions were agreed to subject to approval by the Government of India

(xxv) Approved the amendments to articles 3(1) and 3(2)(a) in the Memorandum of Associations of the Council

Finance Committee

The Finance Committee of the Council held three meetings during the year under report on 22 September, 19 October and 28 November 1973. The main decisions taken by the Committee in these meetings are

(i) The principles of rationalisation of the various posts in supervisory and stenographer cadres was agreed to.

(ii) Provision for the post of Receptionist in NIE Guest House in the grade of Rs. 130-300 was approved

(iii) Revised rates of honoraria for authors of textbooks, etc., were approved.

(iv) Additional posts of grade II teachers for D.M. School attached to the Regional College of Education, Bhubaneswar was approved.

(v) The Audit Report of the Council for the year 1970-71 was accepted and certain suggestions given for expediting the utilisation certificates and work of reconciliation of accounts in the State Bank of India.

(vi) The Revised Estimates for 1973-74 were fixed at Rs. 179.42 lakhs against the proposed figures of Rs. 190 lakhs. The Budget Estimates for 1974-75 was made for Rs. 270.96 lakhs against the proposed amount of Rs. 318.40 lakhs.

Establishment Committee

At its meeting held on 17 April 1973 the Establishment Committee took the following decisions:

(i) This Committee approved the continuance of the post of Section Officer (Sales) in the Publication Unit beyond 30 April 1973. It recom-

mended the creation of the post of Under Secretary in the scale of Rs 900-1250 and abolition of the post of Deputy Director. The proposal to institute a selection grade of Rs 1600-1800 for Professors in NCERT was agreed to on the lines followed in the Delhi University.

(ii) The Committee constituted panels for selection committees for the posts in the production and editorial wings of the Publication Department, librarian, etc., in the NIE.

Programme Advisory Committee

The PAC meeting was held on 26th and 27th September, 1973. The Committee considered the academic programmes of the draft Fifth Five Year Plan of the Council and approved the draft proposals for 1974-75 and the revised programmes for 1973-74 of different departments of the NIE, Regional Colleges of Education and Central Institute of Education. The main decisions of this committee are.

Regarding Fifth Five-Year Plan proposals it was suggested that:

(i) an inter-departmental approach should be developed to avoid overlap of programmes;

(ii) the focus should be on nationally important programmes;

(iii) there should be a better collaboration with the State Agencies and Research Projects may be formed out to State Agencies also;

(iv) there should be studies on teacher behaviour, programmed learning, preparation and standardization of diagnostic and achievement tests in the field of evaluation and reading readiness tests,

(v) there should be more stress on improvement of quality in the Regional Colleges of Education and caution should be taken before starting M Sc. M Ed. courses by the RCEs.

The Committee appreciated the scheme of multiple entry in schools and emphasised that stress on primary education should be reflected in the Council's programmes. It also suggested that the scheme of rural talent search be taken up. Emphasis was also laid on developing the suitable machinery for coordination of programmes of different units and formulation of programmes according to priorities. The committee suggested the establishment of a curriculum unit for developing the total curriculum of 10+2 pattern of schooling and for in-service education of teachers. Other suggestions were that a high priority be given for establishing the Data Bank and a World History Textbook be written in terms of the new 10+2 pattern.

It appointed four Sub Committees to screen all academic programmes for the year 1974-75 and the new programmes of 1973-74 which had not been screened previously. The projects approved by these sub-committees were then taken up by the respective departments or agencies for implementation.

Under the GARP Scheme, 29 schemes were approved for which grants amounting to Rs 1,16,810 were released during the year.

Under the scheme for grants to Professional Educational Organisations a sum of Rs 51,500 was released during the year to 13 Professional Educational Organisations.

APPENDIX 3

Statement of Accounts of NCERT for the Year 1973-74

Consolidated Receipts and Payments Account

<i>Receipts</i>	Ra.	<i>Payments</i>	Ra.
Opening Balance	63,16,541-00	<i>Non-Plan Expenditure</i>	
Grants received from the Government of India :			
(a) Main Grant	2,47,42,000.00	(a) Pay & Allowances Programmes etc :	2,21,45,131.00
(b) Specific Grants	14,32,859 00	(b) Loans & Advances	997332
		Less recoveries	594179
		<i>Plan Expenditure</i>	
Receipts :		(a) Pay & Allowances, Programmes etc.	83,92,378 00
(a) Sale proceeds of publications etc.	31,08,547 00	(b) Third All India Educational Survey	23,23,254.00
(b) Other receipts	13,75,292 00	(c) Expenditure out of specific grants	12,70,240.00
Provident Fund	13,81,138.00	Provident Fund	10,30,440 00
Deposits, Advances, Suspense and Remittances	10,17,215 00	Deposits, Advances, Suspense and Remittances	8,88,194 00
		Closing Balance	29,20,802.00
TOTAL	3,93,73,592 00	TOTAL	3,93,73,592 00

APPENDIX 4

Development of Campuses

(a) NIE Campus

During the year under report, the construction of 32 Type I, 16 Type IV and 8 Type V quarters was nearing completion.

A plot measuring 60'×45' for construction of a domestic electric Sub-Station at the NIE Campus was handed over to Delhi Electric Supply Undertaking for installation of transformer and electrical equipment, to energise residential quarters at the NIE Campus

(b) Regional Colleges

During 1973-74, the following construction was in progress in the Regional Colleges of Education:

Regional College of Education, Bhubaneswar	Type IV quarters—4
Regional College of Education, Ajmer	Type IV — 2 Blocks Type VI — 1 Block Principal's Bungalow — 1
Regional College of Education, Mysore	Type I — 10 quarters Type II — 10 quarters
Regional College of Education, Bhopal	N. A.

APPENDIX 5

NIE Library

The National Institute of Education (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 NIE. The clientele also includes persons working in other research and academic organisations and members of the Executive Committee of the NCERT. The library is also used by the teacher trainees and State level representatives attending seminars, workshops, etc., in the NIE Campus throughout the year. Besides, the library provides inter-library loan facilities to many local institutions.

The NIE Library has a collection of more than one lakh books and about 4500 bound journals. As many as 338 journals, both Indian and foreign, are being subscribed to annually and as many as 75 journals are received free.

To meet the growing demands of its clientele, the NIE Library adds every month about 150 new volumes representing basic and seminal material on educational thinking and related subjects.

During the year under report, about 796 new books were added to the library. A list of these new arrivals was circulated to all Departments of NIE.

A Library Committee selects suitable books for purchase by the NIE Library. The Committee consists of one representative each from various Departments of NIE. The Committee met four times during the year under report.

The recommendations of the Kesavan Committee regarding the design of library block, optimum holdings of the library and also the requirements of the library staff and their grades are being implemented in a phased manner. During the Fifth Plan period it is proposed to develop Library Documentation and Information Service for all Departments and Units of the Council.

APPENDIX 6

Curriculum Development

A brief account of the work done in the area of curriculum development during the year 1973-74 is given below.

1. Science and Mathematics

1 01 New Syllabi in Science and Mathematics

In view of the changed pattern of school education to 10+2 years, new draft syllabi were prepared for classes 1 to 10 in science and mathematics with increased emphasis on environment, health hygiene and nutrition to make the new courses more functional in nature. The preparation of corresponding instructional materials was also initiated.

1 02 Science Education Project (Unicef-assisted)

This is an on-going project, the pilot project in the middle stage having already been completed. About a dozen States have started implementing programme on a wider basis covering 9407 primary and 13512 middle schools. The instructional materials in several States have been revised, on the basis of the feed-back received during the pilot phase, for wider introduction. Six States and Union Territories are still continuing the pilot phase. During the year the NCERT has produced 660 Physics III, 2,500 Chemistry pupil kits and has also taken up further production of 300 Physics I, 250 Physics II, Biology and Chemistry kits, etc. The kits produced were supplied to the States of Tripura, Orissa, Madhya Pradesh, Karnataka, Kerala, Maharashtra, Tamil Nadu, Himachal Pradesh, Bihar, Andhra Pradesh, Jammu & Kashmir and Mizoram. During this year the supply of kits to the experimental schools of the pilot phase has almost been completed

1 03

The following six Supplementary Readers were produced

- (1) Our Tree Neighbours
- (2) Meghnad Saha Ka Jeevan Aur Karya
- (3) Species Bird Migration
- (4) The Story of Transport
- (5) Medicinal Plants
- (6) Birds and Bird Watching

2 Social Sciences and Humanities

2 01 History

The Hindi version of the Handbook for History Teachers for higher secondary stage was finalised

A Teacher's Handbook of History for middle grade is under preparation.

A few more teaching units in history for middle grades in the form of two brochures were finalised

2.02 Geography

A Handbook of Geography for middle grades was completed.

2.03 Civics

A Handbook for Civics teachers for higher secondary stage was prepared.

A programme of laboratory practices in the field of civics teaching was undertaken to detail out citizenship education activities to help pupils learning the various civic processes

2.04 Economics

A Handbook in Economics for secondary school teachers was prepared and sent for publication.

2.05 Languages

(a) Improved syllabus of Hindi as first language has been finalised and is available for research workers, educators, etc., on request. A new syllabus of Hindi as second language for Anglo-Indian schools has been developed.

(b) An outline of the revised edition of Rashtra Bharti Part I, II and III (Textbooks in middle classes) has been developed and work on the preparation of the revised edition of Part I has been undertaken.

(c) Bal Bharti Part I, first of the new series of Hindi Readers, has been sent to the press and the workbook corresponding to this part is being prepared. The second book in this series is under preparation.

(d) New Hindi Poetry and Prose Textbooks for the higher secondary classes—Kavya Bharti and Gadya Bharti were prepared and published for use in all the schools affiliated to the CBSE.

(e) The first textbook for teaching Hindi as the second language has been finalised.

(f) The first textbook of Sanskrit of Class VI has been finalised.

2.06

A draft syllabus on population education was developed and finalised both for the elementary and secondary teacher training units.

2.07 Supplementary Reading Materials

The following publications were brought out:

- (1) The Romance of Money
- (2) Teaching Units on Population Education
- (3) Nutrition of Population Education

- (4) Two Story Books for Children reflecting the theme of Population Education
- (5) Chitra Ek Rang Anek (Short Story)
- (6) We Sing Together (50 Songs)
- (7) A Handbook on Teaching of Geography and National Integration
- (8) The School and the Nation.

A project has been undertaken to prepare a series of children's books dealing with the life and work of freedom fighters. Two volumes will be brought out during this year, each containing about 25 short biographies of freedom fighters from various parts of the country.

3 Elementary Education

3 01 Development of Integrated Curriculum for the Primary Stage

A new curriculum for the primary stage for Class I to V were finalised for the 10-year schooling programme incorporating the ideas of population education, national integration and nutrition education besides the usual subject content and work experience

3 02 Development of Minimum Curriculum Standards for the Primary Stage

A workshop on learning experiences for the primary stage was organised in which specialists from different States participated. Learning experiences in respect of subjects and other learning outcomes spelt out in previous workshops were discussed and finalised. These materials have been edited for publication.

3 03 Curriculum for Multiple Class Teaching Situations

A draft Handbook for Teachers involved multiple class teaching situation, was finalised on the basis of a pilot project in selected schools of Haryana.

3 04 Curriculum for Primary Teacher Training Programmes

The Hindi version of the handbook of teachers entitled "Programmes and Activities for Balwadis" was finalised and sent for publication.

3 05 Dissemination of Selected Playway Activities in Primary Schools

The prevalent playway activities were observed in 5 selected schools in Delhi and the materials pertaining to play activities was collected on the basis of 'on the spot study.' This will be edited and made available for dissemination.

3.06 In-service Curriculum for Teacher Educators

The in-service curriculum in the field of reading for teacher educators was finalised and sent to different States.

3.07 Pre-service Curriculum in Reading in the Teacher Training Institutions

A workshop was organised to make a systematic review of the available data pertaining to creative art activities to develop curriculum plan in art education.

3.08 Syllabus in Work Experience for Teacher Training Courses

Training Courses of Teachers and Instructors for Junior Basic Training Schools of Haryana and for the one-year B Ed course of the RCE, Bhopal were developed by the WEVE Unit.

4. Teaching Aids

The Council has been producing various kinds of teaching aids which can be used at the entire school stage. These aids include films, filmstrips, inexpensive kits, charts, diagrams and such other materials. Among the materials produced during the year under report, the following deserve attention:

4.01 Films completed

- (1) Teaching Elementary Physics (English)
- (2) Teaching Elementary Physics (Hindi)
- (3) Primary Science Kits
- (4) National Science Exhibition
- (5) Living Together (Revised Version)
- (6) Energy in its different forms
- (7) TV in Classroom—a training film for teachers
- (8) Ek Anek Aur Ekta—"An animation film for the age group 4+"
- (9) Script of 4 films on "Let Us Sing Together"

4.02 Films under production

- (1) Script of 4 films on "Let Us Sing Together"
- (2) Rock and Soils (middle school level)
- (3) Chemistry Kits (Training film)
- (4) Physics Kits Part I (Training film)
- (5) Physics Kits Part II (Training film)
- (6) Physics Kits Part III (Training film)
- (7) Tools and Techniques of Self-study
- (8) The Script of a TV Educational Film on Health and Hygiene was prepared by a Committee of Specialists and submitted to the Ministry of education and Social Welfare for its approval

4.03 Filmstrips completed.

- (1) Jammu & Kashmir
- (2) Pressure in Liquids

4.04 Filmstrips under production.

- (1) Rajasthan
- (2) Uttar Pradesh
- (3) D.T A
- (4) Operation of 16 MM Projector

4.05 Educational toys and kits :

The C.E.T. had a Working Group Meeting in January, 1974 to prepare a framework of reference, carry out survey of educational toys, classify and suggest adaptations of foreign toys for Indian institutions. This group will continue to work for preparing various types of educational toys. About a dozen exhibits of high educational value were developed and displayed by the Workshop Department in the National Science Exhibition.

An educational and experimental kit on "Rajasthan" has been prepared consisting of various audio-visual materials for use in classroom teaching.

4.06 Science kits

Two science kits were developed for teaching at the middle stage, one for demonstration purposes by teachers and the other for pupil's use. Development of prototypes and production of different types of kits for the primary and middle schools were continued. Work was taken up on the designing of prototypes for the development of indigenous science equipment for the senior secondary stage.

4.07 Cassette tapes

Some Cassette tapes have been developed by the language laboratory for teaching English and Bengali as second languages. Fifty language laboratory scripts were developed for laboratory drills in Bengali as second language.

4.08 Picture books:

A picture book entitled "Gandhiji—Glimpses of his Personalities" has been prepared and its mass production has been taken up by the Publication Unit. Two picture books entitled "The Great Adventure" and "Story of Delhi" are under production.

4.09 Portraits of eminent Indian scientists

A set of 11 portraits of eminent Indian Scientists have been prepared and published to be used as an inexpensive teaching material in secondary schools.

APPENDIX 7

Research Studies, Investigations and Surveys

The following research studies, investigations and educational surveys were completed/undertaken by the Council in the year under report

1 Adolescence

1.01 Development of a Personality Inventory for Adolescents

This is an on-going project which aims at preparing a personality inventory for the adolescents. Norms and data have been collected and analysed. The report will be ready in another six months.

1.02 Development of a Scale to Measure Adolescents' Attitude towards Authority

This is also an on-going project. All necessary data have been collected and analysed. The report will be ready for use in 1974-75.

2 Audio-visual Education

2.01 A Study of the Need, Availability and Use of Audio-Visual Equipment and Material in India

The data has been received, tabulated and first draft report prepared.

3. Developmental Psychology

3.01 Developmental Norms Project for Age Group 5½-11 years

This is an ongoing project being conducted in collaboration with six Universities. The core study is being done in the Council and different aspects replicated at the six centres. Field Studies based on the pilot study have been launched this year. Most of the centres have finished their data collection and are doing the analysis for writing the report of the main study.

4 Economics of Education

4.01 A Study of Cost of Education in Andhra Pradesh, Assam, Jammu & Kashmir, Kerala, Maharashtra and Punjab

A preliminary report based on investigation of the cost of education in six States was prepared. The first section of the report analyses the growth in educational expenditure in relation to State income and budgetary resources, the second section deals with district disparities; and the third section analyses the expenditure data and enrolment figures. Data in respect of Punjab has been analysed so far.

5 Educational Guidance

5.01 *Studies of Boys with Superior Scholastic Ability*

The aim of this Study is to lead to a better understanding of the group so as to lead to the provision of adequate curricula and guidance services. Three studies on problems, interest patterns and work values have been completed. A number of other studies are planned.

5.02 *Evaluation of Guidance Programmes in Delhi*

Data obtained have been analysed and requests for additional data have been sent to school counsellors.

5.03 *Comparative Study of the Characteristics of Students Selected and those Rejected under NSTS*

This study has been completed

5.04 *Research on Teaching of Occupations*

This is an evaluative investigation of the 'Self Study' and 'Group Teaching' methods of teaching of occupations at the middle and higher secondary leaving stages.

This has been completed and the report written.

6 Evaluation

6.01 *Comparison of Educational Attainment (I.E.A. Project)*

This is a participating programme in an international study involving comparisons of educational achievements in reading comprehension and science. The national report for India, emphasizing implications of the work done in India has been prepared.

7 Language and Linguistics

7.01 *Needed Research in Language Teaching in India*

A brochure has been published for use by research workers.

7.02 *Position of Languages in School Curriculum*

This study has been completed and sent for publication.

7.03 *A Study of the Problems of Spoken Hindi to Malayalam-speaking Children*

This study has been completed and the report is being finalized.

7.04 *A Study of the Problems of Teaching Spoken Bengali to Hindi-speaking Children*

Tools for data collection have been developed and some data have been collected on tapes and transcribed in I.P.A.

7.05 *Third All India Seminar on Fundamental Research on Language and Communications*

This seminar studied the nature, possibilities and limitation of human communications in the fields of mathematics, natural sciences, social sciences and poetry. The proceedings are to be edited for publication.

706 *Language Master Study*

A feasibility study of the equipment known as Language Master has been conducted. It was observed that a gadget like the Language Master is capable of being handled by disadvantaged children like tribal children and is extremely effective for learning certain types of language skills

8 **History of Education**

8.01 *Growth of Education among the Weaker Section (Scheduled Castes) of the Community, 1947-72*

This report studies the political, economic, social and cultural forces in relation to the growth of education among the Scheduled Castes of India. The report has been prepared.

9 **Mass Media and Education**

9.01 *A Study of the Cognitive Effects of the ETV Programmes Broadcast by the Delhi Centres*

Cognitive aspects of the educational television programmes were studied and a comparison made between a lesson broadcast on TV and the same lesson taught by the teacher in the classroom

10 **Programmed Learning**

10.01 *A Study of Relative Effectiveness of Individual versus Group Pacing in the context of Programmed Materials in Mathematics*

The results of the try-out have been analysed and the report is being written.

11 **Talent Search**

11.01 *Identification of Talent in Elementary and Secondary Schools*

Scoring and tabulation of tests, comparison and compilation of scores for longitudinal study were undertaken.

12 **Teacher Education**

12.01 *A Study on Promotion of Research in Teacher Training Institutions*

This is a study of questionnaire sent to teacher training institutions to assess the impact of seminars on participants. The conclusion was that the seminars proved very fruitful for the professional and academic growth of Teacher Educators and in their acquaintance with research techniques in planning research projects

12.2 *A Study of Manpower Planning for Teacher Education*

Data have been collected from 20 out of 30 States/Union Territories in respect of the criteria and procedure used for estimating teacher requirements at primary, middle and secondary stages of education

13 Test Development

13.01 Differential Aptitude Test Battery

The objective of the project was to further develop a battery of test for the measurement of developed abilities of pupils studying in class VIII of the Hindi-speaking tests as prepared earlier by the College of Educational Psychology and Guidance, Jabalpur. Normative data have been collected during the year and most of the scoring has been completed

13.02 Feasibility Study for Development of Selective Tests

A feasibility study in connection with the development of tests for selection of six-year-old children from the deprived groups of the society, for admission to proposed community schools was conducted and a report submitted to the Ministry of Education and Social Welfare

13.03 Intelligence Tests

Standardization of a series of Intelligence Tests for ages 7 to 16 in three regional languages (Kannada, Malayalam and Tamil) has been completed. Agencies in these languages have been contacted to undertake publication and distribution of these tests

13.04 A Study on Validity of Scholastic Aptitude Tests

This is a continuing project to study the predictive validity of scholastic aptitude tests in Hindi for classes VIII and IX. During the year collection of data on the subjects' achievement was completed. The achievement and intelligence data have been tabulated and sent to the Data Processing Unit for analysis.

14 Surveys

14.01 The Third All India Educational Survey

The main objective of this survey is to collect data and information which may be helpful for planning and policy making and for taking administrative decisions scientifically on important educational issues. These data would also be useful in determining trends and relationships, gaps and imbalances and for making comparisons

The Council is coordinating the work of the third survey in so far as it relates to other agencies, which are responsible for organizing different areas of surveys, like State Governments, University Grants Commission, National Staff College, Institute of Applied Manpower Research and Culture Department of the Ministry of Education. An Advisory Committee has been formed and sub-committees have been set up to help concerned agencies in developing various schedules

Twelve schedules were prepared and finalized and relevant instructions were developed by the Unit and sent to all States and Union Territories. The Unit provided all technical and academic guidance to the States in conducting the training programme for District Survey Officers at State level. Tables were developed for manual and mechanical processing of data. These were printed and supplied to the States

14.02 Comprehensive Survey of Education in Manipur State

The report on the Project started in the previous year has been finalized.

14.03 Third National Survey of Secondary Teacher Education in India

Sixty-five per cent of the data were collected and tabulated. Preparation of the first draft of the National Report is in progress.

14.04 Second National Survey of Teacher Education at the Elementary Level

State reports have been received from all State Institutes of Education and the National Report is about to be completed

APPENDIX 8

Training Programmes

As in the previous years, the Council continued to pay attention in 1973-74 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

The Central Institute of Education located at Delhi continued to offer regular courses leading to the B Ed and M Ed degrees of the University of Delhi. The part-time two-year M.Ed. courses and research course in education leading to the Ph D degree of the same university were also continued. In 1973-74, 140 students took the B Ed. examination of which 120 qualified for the degree, 3 of them getting distinction. Twenty students took the M Ed degree of which 4 got distinction. All the 18 M Ed. part-time students passed the examination. Three scholars were awarded Ph D degree in education. During the year, 190 students were admitted to B Ed and 12 to M Ed courses.

1.02 Regional Colleges of Education

During 1973-74, all the four Regional Colleges of Education at Ajmer, Bhopal, Bhubaneswar and Mysore continued to offer four-year integrated course in science leading to B Sc, B Ed. degree. The four-year English course leading to B A., B Ed degree was offered at Bhopal, Bhubaneswar and Mysore. As regards one-year B Ed. courses, Science was offered at all the four Regional Colleges, while Commerce was offered at Ajmer, Bhopal, and Bhubaneswar, and Agriculture at Ajmer and languages at Ajmer and Bhopal only. The four-year integrated science courses are so designed that they satisfy not only the understanding and development of content area, but also involve the pedagogical methodology of the concerned subject, some broad general education and appropriate vocationalisation or work experience relating to the development of the content.

M Ed. courses also continued to be offered during the year under report at the Regional Colleges of Education, Ajmer, Bhopal and Bhubaneswar. During the academic session 1973-74, the total enrolment in the courses leading to the four-year B.Sc, B Ed. and B.A, B Ed. degrees and one-year B Ed. degree in all the four Regional Colleges of Education was about 2,000. The number of students admitted to the post-graduate courses at the Regional Colleges of Education, was about 30.

With a view to clear the backlog of untrained teachers in high/higher secondary schools in the country, the Council has been organising Summer-School-cum-Correspondence Course leading to the B Ed. degree at all the

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 Regional Colleges during 1973-74 was about 1,800

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/PUC/Intermediate/Pre-degree College teachers of science and mathematics abreast with the latest developments in their subject areas, NCERT in collaboration with the University Grants Commission and National Council for Science Education has been organising Summer Institutes during the last few years From 1972 onwards, the Council has been exclusively responsible for running these institutes The duration of a Summer Institute is generally five-six weeks and it is held under the Chairmanship of a University Professor with the help of the resource personnel from the universities/colleges. During the year under report, 99 Summer Institutes in science and mathematics were organised at different centres all over the country, imparting in-service training to over 3,300 teachers.

The Institutes were as follows:

<i>Subject</i>	<i>No of Institutes</i>	<i>Number of Trainees</i>
Physics	22	746
Chemistry	24	819
Biology	20	604
Mathematics	26	871
General Science	4	188
Project Technology	3	97
Total	99	3,325

2.02 Summer Institutes in Other Educational Fields

(a) *Summer Institute on Contemporary Problems in Indian Education:* A Summer Institute was organised on Contemporary Issues in Indian Education at Punjab University, Chandigarh during May-June, 1973. The objectives of the Institute were to study the problems of secondary education with special reference to the programmes of Fifth Five Year Plan. Twenty-four participants from different States attended the Institute.

(b) *Summer Institute on Child Development:* A Summer Institute on Child Development was held at Shantiniketan. The one-month course was to acquaint the staff of primary and pre-primary training institutes currently teaching psychology with the latest trends in different aspects of the child development.

(c) *Summer Institute in Applied Linguistic and Language Teaching:* A Summer Institute in Applied Linguistics and Language Teaching was

organised at the Sanskrit University, Varanasi from 5 June to 2 July 1973. The courses in the Summer Institute were conducted at basic level. Forty-five participants attended the basic level course from different States.

2.03 Diploma Course in Educational and Vocational Guidance

The thirteenth full-time post-graduate diploma course in Educational and Vocational Guidance was held during 1973-74. The course is designed to train counsellors for State Guidance Bureaus and schools and also to train teacher educators who teach guidance as a subject in teacher training colleges. Twenty-two candidates joined the course and completed it. Out of these 6 had been deputed by the State Governments.

2.04 Other Short-term Training Programmes

A number of other short-term training programmes were also conducted in different fields. A brief report on these programmes are as follows

(a) *Training Programmes at National Level* (i) Two training courses in Tribal Life and Culture were organised for officers of different States in Delhi and Bhopal by the Department of School Education to acquaint them with special problems of Tribal Education, improvement of class room conditions in relation to tribal students and formulating suitable solutions to educational problems related to tribal areas.

(ii) A training programme on UNDP Demonstration-cum-Laboratory equipment was organised from March 11-18, 1974 in Delhi by the Department of Education in Science and Mathematics for the key personnel from State Institutes of Science to acquaint the participants with the equipment supplied under Extension and Consultancy Programme of Unesco Technical Assistance

(iii) A Technical Training Course was organised from 22nd August to 10th September, 1973 by the Department of Teaching Aids in Delhi to give training in operation, repair and maintenance of all types of audio-visual aids. Fourteen participants from various States and Teachers' Training Colleges attended the course.

(iv) A training course for State Survey Officers was organised by Educational Survey and Data Processing Unit from 20th to 30th November, 1973 for acquainting them with the procedures and schedules on the basis of which data has to be collected and classified

(v) The Eighth Sequential Course in Programmed Learning was conducted by the Department of Educational Psychology and Foundations of Education in two phases of 25 and 15 days' duration. The courses were attended by 17 senior teachers and lecturers from Teacher-Training Institutions

(vi) An Orientation Course was organised by the Department of School Education for the organizers of the All-India Federation of Primary Teachers Associations from November 12 to 17 in Delhi. Forty-three participants from 11 States were acquainted with the problems of primary education, important educational programmes of the Fifth Five Year Plan,

programmes of the NCERT, educational innovations related to qualitative and quantitative improvement of primary education

(vii) A four-week course in Educational Evaluation was organized by the Department of Textbooks from June 4, 1973 at Dehra Dun. Forty participants from SIEs and Training Colleges from all over the country participated.

(b) Training Programmes at Regional/State Levels

(i) An Orientation Course was organised by the Department of School Education from 19th to 24th January, 1974 for the organisers of U.P. Primary Teachers Association to brief them with the latest trends in primary education and get their cooperation in implementation of universalization of primary education. It was attended by 90 participants.

(ii) A similar Orientation Course was conducted by the Department of School Education for the organizers of Bihar Primary Teachers Association from March 25 to 30, 1974.

(iii) A Training course in work experience for teachers and instructors from J.B.T. Schools of Haryana was organised by Work Experience Cell in collaboration with SIE Haryana in December, 1973.

(iv) An Orientation Course was organised by the Department of Teacher Education at Solan from 26th November to 1st December, 1973 to orient the staff of 26 members of the newly established State Institute of Education for Himachal Pradesh.

(v) An Orientation Course was organized at Calcutta by the Department of Education in Social Sciences and Humanities for teacher educators in History of the Secondary Training Colleges for Eastern Region of India.

(vi) A Training Programme was organised by the Department of Textbooks for paper-setters of Punjab in the subjects of English, Hindi and Punjabi at Chandigarh from May 2 to 11, 1973. Fourteen sample question papers and three brochures were produced which are to be published by Education Department of Punjab.

(vii) A Workshop for training paper-setters of Gujarat in the subjects of English, Hindi and Gujarati was held by the Department of Textbooks at Baroda from August 24 to 31, 1973. It was attended by 28 participants.

(viii) A five-day Workshop on Internal Assessment was organised at Madras by the Department of Textbooks in collaboration with the State Evaluation Unit, Madras which was attended by 30 Headmasters/Headmistresses/District Education Officers of Tamil Nadu. They were oriented to educational improvement aspect of the scheme and were encouraged to develop and refine a comprehensive scheme of Internal Assessment.

(ix) A five-day Workshop was organised by the Department of Textbooks at Coimbatore to train resource persons, and orientation programmes for teachers for implementing the programme of the State Department of Education.

(x) A ten-day Workshop was organised to train key personnel of Kerala for the subject of Geography by the Department of Textbooks at Trivandrum from August 27 to September 5, 1973. This was attended by 38 senior teachers who were oriented with new innovations and trends in content and methodology of teaching geography.

(xi) A Workshop for training of authors and evaluators of textbooks in Social Sciences was organized by the Department of Textbooks at Jodhpur at the request of Board of Secondary Education, Rajasthan. It was attended by 39 participants from Universities, Teachers' Colleges and Schools.

(xii) Two Training Courses for Primary School Teachers posted in selected tribal areas were held at Ranchi by the Department of School Education.

(xiii) A Workshop for the training of paper-setters of Manipur in Languages and Social Sciences was held at Imphal in collaboration with Manipur Board of Secondary Education, by the Examination Reform Unit.

(xiv) A Workshop was organised by the Examination Reform Unit for training paper-setters of Intermediate Examination in Physics, Chemistry, Biology and Mathematics for the Board of High School and Intermediate Education, U.P.

(xv) A Workshop was organised by the Examination Reform Unit in collaboration with S.S.C. Examination Board, Gujarat for training their paper-setters in core subjects.

(xvi) Two Workshops were organised by the CET in July and August, 1973 at the request of Maharashtra Government to identify talent for script writers/presenters for Educational Television in English for class V and VIII and science for class VIII. Forty-one teachers participated and 18 were selected as suitable for further intensive training.

(xvii) The Department of Teaching Aids provided assistance or collaborated with the following agencies:

1. Kendriya Vidyalaya Sangathan in conducting AV Workshops in Social Studies for teachers of Central Schools.
2. State Audio-visual Education Department, Punjab in organising one-week training course in AV Education for M.Ed. students.

(xviii) The Regional College of Education, Bhubaneswar organised the following in-service courses:

1. Three six-day Workshops on AV Education for teachers teaching History, Geography, Arts and Crafts in Secondary Schools. Forty-five teachers from Orissa, Bihar, Assam and West Bengal participated.
2. A six-day Seminar on Preparation of Instructional Material in English was held at Post-Graduate Training College, Jorhat, Assam for 15 teachers of North-Eastern States.
3. An in-service course for 10 days on Reading and Spoken English was held for 22 English teachers of Orissa.

- 4 An in-service course for 10 days was organised for 33 teachers of West Bengal and Orissa to train them in teaching English through Structural Approach.
5. An in-service course for five days was organised for training Headmasters on their job Twenty-four Headmasters and Headmistresses from West Bengal, Orissa and Nagaland joined this course.
6. A four-day Workshop was organised on "Work Experience" to train 15 Science and Craft teachers of Secondary Schools of Orissa
- 7 A ten-day in-service course in Commerce was held for 17 teachers of secondary schools of Bihar, West Bengal and Tripura.
- 8 A ten-day in-service course in Agriculture was held for 10 Teacher Educators of the Junior Teacher Training Colleges of the Eastern Region.

(xix) The Regional College of Education, Ajmer organised the following in-service programmes:

- 1 A seven day Workshop in Agriculture for 20 Delhi teachers at Delhi.
- 2 A 12-day Workshop on Programmed Instruction in Mathematics at Ajmer. Fifteen participants joined the workshop.
3. A 12-day Seminar of Educational Administration at Allahabad in which 79 participants joined
- 4 A 12-day Workshop in Agriculture at Ludhiana where 14 participants joined this programme
5. A six-day Seminar on Work Experience in Commerce at Ajmer in which there were 36 participants
- 6 A six-day Seminar on Study of Teachers' Behaviour and Student Teaching at Ajmer.

(xx) The Regional College of Education, Bhopal organised the following in-service programmes:

- 1 A Workshop of Creativity from 15th to 23rd December, 1973 at Bhopal.
2. A Workshop on Work Experience at SIE, Poona from December 10 to 15, 1973.

(xxi) The Regional College of Education, Mysore organised the following in-service programmes:

1. A four-day Workshop on Evaluation for the Heads of High Schools of Pondicherry from 26th to 29th September, 1973 Thirty-two participants joined the Workshop.
- 2 A ten-day Orientation Course in Work Experience for 30 teachers of Pondicherry Union Territory was organised from 24 December 1973 to 2 January 1974

- 3 A three-day seminar on Internship in Teaching Programme for B.Ed. students was held from November 6-8, 1973. Forty-one Heads and Teachers of Cooperating Schools participated.

(c) *Training Programmes at Local Level*

(i) An orientation-cum-discussion programme was organised by the Department of School Education in Delhi for the Supervisors of the Education Department of Delhi Municipal Corporation on March 11-12, 1974 on various aspects of primary education

(ii) An in-service course on Work Experience for primary school teachers of Jabalpure was organised in January, 1974 by the Work Experience and Vocational Education Unit in collaboration with the Government Training College, Jabalpure

(iii) A ten-day workshop of TV Script Writers for SITE was held by CET from 10 to 19 December, 1973 at Delhi in collaboration with Director SITE, and A I R. Twenty-two writers participated 25 per cent of the scripts were used straightaway and 15 per cent after some modifications for the telecast.

(iv) Five one-week workshops were conducted by the Department of Teaching Aids for Delhi Municipal Corporation One hundred and thirty teachers were trained in the preparation of inexpensive teaching aids

(v) The Language Laboratory of the Department of Social Sciences and Humanities organised two workshops for developing language laboratory drills in Bengali as second language. Fifty language laboratory scripts were developed

(vi) The R C E. Mysore organised a seminar-cum-workshop for 41 Headmasters and teachers of Chemistry and Biology from selected schools of Coimbatore on teaching of Chemistry and Biology in selected schools at Coimbatore.

(vii) The Department of Education in Science and Mathematics assisted the following local training programmes:

- 1 Delhi Municipal Corporation in orientation of their primary teachers and Headmasters
- 2 Kishori Raman Training College, Mathura in preparation of test items for class IX in Physics, Chemistry and Biology.
- 3 Directorate of Education, Delhi in training class V teachers for teaching primary Science

(viii) The Examination Reform Unit organized a short training course in Educational Evaluation at Pachmarhi for the officers of the Army Education Corps.

(ix) The Workshop Department organized at Delhi a training programme for one Graduate Engineer and five I T I qualified skilled workmen as full time apprentices

APPENDIX 9

Extension and Field Services

A brief account of the extension and field services provided by the Council during 73-74 is given in the following paragraphs.

1. Extension Services Centres

The Extension Services Centres, both primary and Secondary, are under the control of either the State Governments or the universities. Academic guidance to these Centres was continued to be provided by the Field Advisers of the NCERT in the States and by the officers of the various Departments of the National Institute of Education and the Regional Colleges of Education.

The Field Advisers posted in different States continuously maintained contacts with the State Departments of Education, State Institutes of Education, State Institutes of Science and other Teacher Training Institutions. Some of the Field Advisers organized short seminars to acquaint the coordinators of Extension Service Centres with innovation practices. The wider implementation of the science education project received important attention. The programmes and problems of State Education Departments were brought to the notice of the Council. Several of the Field Advisers have been nominated by State Education Departments in their various committees.

2. Seminar Readings Programme

This programme aims at encouraging secondary school teachers to write papers on any topic related to secondary education based on their experiences in the classroom and their critical thinking. During 1972-73 133 papers were received from the States for the 11th All-India Competition. 17 papers were selected for the national awards of Rs 500 each. The awards were presented in a national meet held at Delhi in March, 1974 which was attended by 15 awardees. Selected papers were on a variety of subjects like science, modern mathematics, languages, reading habits, extra-curricular activities and problems of school organisation.

3. Other National Competitions and Programmes

3 01 The Department of Teacher Aids organised two competitions, one for development of improvised aids and the other for all-India awards for audio-visual aids. 7 prizes and 5 certificates of merits were awarded under the first scheme. 5 prizes and one certificate of merit were awarded under the second scheme.

3 02 *National Prize Competition for Children's Literature*

The XVIII National Prize Competition was held during the year

3.03 Celebration of Teachers' Day in 1973

Two Symposia were organised, a few 'Benefit Filmshows' were also organised and donations were collected from the various Departments of the NIE for the "Teachers' Welfare Fund."

3.04 Environment Day of United Nations in 1973

The Department of Education in Science and Mathematics in collaboration with the Department of Science and Technology had brought out a special environment number of the journal (School Science) in June, 1973

3.05 Our India Project

The Department of Social Sciences and Humanities (N Integ. Unit) runs this project wherein students are required to study four states and gather source materials from them and interpret the visual materials. During the year fifty schools were given a grant of Rs 1,000 each.

4. Seminar, Workshops, Meetings, Conferences, etc.

A large number of seminars, workshops, meetings, conferences, etc., were organised by the various Departments of the National Institute of Education and the Regional Colleges of Education all over the country. A brief account of the same is given below.

4.01 At National Level

- (i) An All India Seminar-cum-Workshop was held by Department of Education in Science and Mathematics from 27 August 1973 to 5 September 1973 at Delhi for development of curricular materials in Science at Primary level.
- (ii) The Department of Teaching Aids conducted an A V. Workshop in Social Studies for teachers of Central Schools in collaboration with Kendriya Vidyalaya Sangathan.
- (iii) The Sixth Annual Conference of Directors of State Institutes of Education was organised by the Department of Teacher Education from 7 to 11 January 1974
- (iv) A Workshop of Teachers and Science Educators for Primary Science was organised at Delhi from February 25 to March 4, 1974.
- (v) The Third All India Seminar on Fundamental Research on Language and Communication was organised in Delhi in the last week of March to discuss the nature, possibilities and limitations of human communications in the field of Mathematics, Natural Sciences, Social Sciences and Poetry.
- (vi) The National Integration Unit in the NCERT has organised during the year 9 Inter-State Camps for Students and Teachers in various parts of the country Two camps exclusively for teachers were also organised at Bombay and Chandigarh
- (vii) A Workshop on Teacher Behaviour Patterns and their impact upon students' academic achievement was held by the NCERT

for 6 days in Delhi. 17 Training College Lecturers/Counsellors attended.

- (iii) An All India Seminar on Behaviour Modification in School setting was held by the Department of Educational Psychology and Foundations of Education in New Delhi for 7 days to acquaint the participants with general principles and techniques of behaviour modification and to develop in them the necessary skills to apply the techniques in school situations.

4.02 At Regional or State Level

(i) The Department of Education in Science and Mathematics assisted the following agencies:

- 1 The Union Territory of Arunachal Pradesh in conducting a 20-day training course in modern mathematics.
2. The S.I.E Haryana in the adaptation of primary science and mathematics books for classes I and II
- 3 The Delhi Administration in the adaptation of Chemistry textbook for class VII.
4. The SISE Hyderabad in preparation of instructional material for class IX Physics and Biology.
- 5 Training programme for teacher educators of Manipur at Imphal from January 17 to 22, 1974 organised by Department of Teacher Education

(ii) The Department of Education in Science and Mathematics organised the following workshops:

- 1 Refinement of Physics textbook Part II for secondary stage at Delhi from 30 April, 1973 to 5 May, 1973
2. Preparation of evaluation materials for middle school Physics Part II and Biology Part II at Chandigarh from July 24 to 31, 1973.
- 3 Preparation of evaluation materials for middle school Physics Part III at SISE Bangalore from October 30 to November 6, 1973
4. Preparation of test items for secondary Physics Part I at Delhi from February 11 to 18, 1974.

(iii) The Department of School Education organised or assisted in the following programmes:

1. Provided resource persons for the Eighth All Nagaland Education Officers' Conference on problems relating to Administration and Qualitative Improvement of Primary Education held at Dinapur from April 5-7, 1973.
2. Conference of resource persons for reorienting primary school teachers held at SIE, Haryana

(iv) The Department of Teacher Education organised the following programmes:

1. A workshop on Improvement of Evaluating Procedures in Teacher Education at Secondary level was organised at Bangalore from

12-16 October, 1973. 22 teacher educators from the universities of Madurai and Bangalore participated.

- 2 A workshop on Evaluation and Teacher Education was organised at Gujarat Vidyapeeth, Ahmedabad from October 30 to November 4, 1973. 30 teacher educators from the University of Saurashtra, South Gujarat and Gujarat attended the workshop
- 3 A workshop of student teaching and its evaluation was organised at Government Training College, Jullundur for the teacher educators of Guru Nanak and Punjabi Universities from 18th to 23rd March, 1974.
- 4 A workshop on Guided School Experience, Research, Experimentation and Finalisation of B Ed. papers was organised at PGT Training College, Jorhat from 25th to 30th March, 1974
- 5 A workshop for training of resource personnel for the western region was organised at RG Teachers College, Pore Bander from 4th to 9th June, 1973. 19 teacher educators from MP, Gujarat and Maharashtra participated.
- 6 A similar workshop was organised in Government Constructive Training College, Lucknow from October 11-16, 1973. 21 teacher educators from U P. participated
7. A seminar-cum-workshop on Methods of Teaching was held at Basic Training College, Imphal from January 17-22, 1974 for teacher educators from Manipur, Nagaland and Meghalaya 20 participants joined it.
8. A workshop on Improvement of Student Teaching Programme at the elementary level was organised at the State Institute of Education, Banipur, West Bengal from March 11-16, 1974 36 Principals of Junior Teacher Training Institutions from West Bengal, Manipur and Tripura participated.

(v) The Department of Textbooks organised the following extension activities -

1. A workshop for paper setters of Gujarat in the subjects of Hindi and Gujarati was held at Baroda from August 24-31 which was attended by 28 participants
- 2 A ten-day workshop for the key personnel in the subject of Geography in Kerala was organised at Trivandrum from August 27 to September 5 It was attended by 38 teachers of Geography and other key personnel
- 3 A five day workshop was organised at Coimbatore in collaboration with the Department of Education, Tamil Nadu to help the State to introduce the proposed scheme of internal assessment in schools.
- 4 A workshop for authors and evaluators of textbooks in Social Sciences was held at Jodhpur from September 11-21, 1973 It was attended by 39 participants from Universities, Teachers' Colleges and Schools

- 5 A workshop was organised to develop evaluation tools and the manual of instruction for evaluation of textbooks in Economics in Delhi from October 17-20, 1973

(vi) The Department of Educational Psychology and Foundations of Education organised the following extension activities :

1. A five-day seminar on Guidance for orientation of District Education Officer and Inspectors of Schools was held at Regional College of Education Bhubaneswar for the Eastern Region, 15 participated.
- 2 A four-day workshop on Teaching of Occupations at Delhi for teacher educators and guidance specialists of the Northern Region.

(vii) The Regional College of Education, Bhubaneswar organised the following activities :

- 1 A seven-day workshop on preparation of Instructional Materials on National Integration for teachers of the Eastern Region 13 teachers attended.
- 2 Supplied books and maps worth Rs 16,852 as gift items to 40 secondary and Higher Secondary Schools in the Eastern Region for their co-operation in the Internship in Teaching Programme of the College
- 3 Assisted 45 Secondary and 5 primary schools in the Eastern Region with financial grants of Rs 13,740 to encourage experimentation in Schools

(viii) The Regional College of Education, Ajmer organised the following activities :

1. A ten day Institute of Science Club sponsors at Ajmer 40 participants from the Region attended in September, 1973.
- 2 Two meetings for Screening of Secondary School and Primary School Experimental Projects at Ajmer The number of participants were 10 and 13 respectively in August, 1973
3. A seven-day workshop for Co-ordinators (Primary and Secondary) in September, 1973 at Patiala 20 participants joined
4. A seven-day workshop on new trends in Science Curricula and its Evaluation at Ajmer in November, 1973 14 participants joined
- 5 A three day Conference of District Education Officers at Dharamsala in November, 1973.

(ix) The Regional College of Education, Bhopal organised the following activities :

- 1 A Regional Conference of Deans, faculties of Education and Science at the Institute of Social Services, Panaji.
- 2 Provided financial assistance of Rs 28,533 to different institutions of the Region for carrying out Experimental Projects.

- 3 Distributed books worth Rs 1,000 to the Co-operating Schools of the Region

4 03 *At the Local Level*

The various Departments or constituent units provided assistance or participated in many programmes of a local nature as follows :

(i) The Department of Educational Psychology and Foundations of Education.

1. A Programmed learning course-cum-workshop for Mathematics teachers of Delhi Administration for 15 days at Delhi.
- 2 Administration of Psychological tests to 60 nurses trainees of Holy Family Hospital, New Delhi
- 3 Administration of selection tests for admission to NDMC Navayug Public School, New Delhi.
4. Participation in meetings convened by Central Social Welfare Board on Condensed Course for women and for planning the programmes of integrated Child Care Services
5. Supplied guidance literature to about 700 institutions having a trained guidance worker on their staff.

(ii) The Department of School Education had the following programmes:

- 1 A workshop at Delhi to make a systematic review of available data pertaining to Art Education.
- 2 A meeting of the Working Group on Parent Teacher Co-operation was organized from January 1 to 5, 1974 to draft a training course for field workers.
- 3 Members of the Staff addressed to Social Workers of Delhi Administration on programmes and activities for Balwadis.

(iii) The Department of Teaching Aids organized or assisted in the following programmes :

- 1 Assisted the Extension Education Institute, Nilokheri in conducting a training course in Teaching Methods and Communication Media.
- 2 Collaborated with I.I.T. Kanpur in organizing an A. V Workshop for Teachers of I.I.T.

(iv) The WEVE Unit assisted, or participated in the following programmes :

- 1 Panel meeting of NIE at Delhi in July, 1973 to outline various models of curriculum for Work Experience.
- 2 Work Experience Workshop for Teacher Educators conducted by the Regional College of Education, Bhopal at Poona.

(v) The Department of Education in Science and Mathematics participated or assisted in the following programmes

1. SIE, Haryana in adopting science and mathematics for classes I and II.
2. Delhi Education Department in adaptation of middle school textbook in Chemistry for class VII
3. SCERT, Hyderabad in preparing Physics and Biology instructional material for class IX.
4. Assistance to Department of School Education in the Orientation of All India Federation of Programme Teachers Associations
5. Assistance to the Department of Teacher Education in the Training programmes for Teacher Educators at Imphal, Manipur.

(vi) The Regional College of Education, Bhubaneswar offered four short-term Vocational Courses for non-student youth. 47 non-student youths were trained during the year

(vii) The Regional College of Education, Ajmer organised two Vocational Courses for non student youths in which 11 non-student youths were trained.

(viii) The Regional College of Education, Mysore had the following extension activities :

1. A 'Guidance Week' was organized in February, 1974 where several talks, a seminar and a panel discussion took place among the various participants
2. A six-day workshop for revision of correspondence lessons was held in October/November, 1973, for use in Summer Schools-cum-Correspondence Courses
3. A three-day seminar on Internship in Teaching programme for year B Ed Students was held in November, 1973. 41 Headmasters and teachers of co-operating schools participated

(ix) Centre for Educational Technology organized a working group meeting to consider the development of educational toys in January, 1974.

(x) The Department of Education in Social Sciences and Humanities organized two workshops for developing Language Laboratory drills in Bengali as second language.

APPENDIX 10

National Science Talent Search Scheme

Under the National Science Talent Search Scheme, there is a provision for selection of 350 scholars each year for the award of scholarships and other financial and academic benefits

The number of candidates who appeared in the NSTS examination in 1973 was 7,260 out of which about 1,000 qualified for interview and 356 were finally selected for awards. The State-wise distribution of candidates selected for awards is given in the Annexure

A regular follow-up programme of the awardee is undertaken. The awardees at the under-graduate level were placed at 12 Summer Schools at different centres of higher learning. The M.Sc. scholars were allotted to various National Science Laboratories and Centres of Advanced Studies while the Ph.D. scholars were given individual attention in the execution of their research projects.

The NSTS Unit has undertaken several research studies on socio-economic conditions of NSTS awardees and on creativity test

ANNEXURE

State-wise Distribution of Candidates Selected for Awards in 1973 under the NSTS Scheme

S. No	Name of State/Union Territory	Number of Candidates Appeared in the Exam.	Number of Candidates Selected for Awards
1.	Andhra Pradesh	373	14
2.	Assam	60	3
3.	Bihar	222	6
4.	Gujarat	65	—
5.	Haryana	139	2
6.	Himachal Pradesh	32	1
7.	Jammu & Kashmir	17	—
8.	Karnataka	280	20
9.	Kerala	262	20
10.	Madhya Pradesh	751	9
11.	Maharashtra	457	36
12.	Manipur	11	—
13.	Meghalaya	7	—
14.	Nagaland	Nil	Nil
15.	Orissa	155	8
16.	Punjab	160	2
17.	Rajasthan	468	8
18.	Tamil Nadu	723	45
19.	Tripura	4	—
20.	Uttar Pradesh	1489	17
21.	West Bengal	590	58
22.	Delhi	849	100
23.	Other Union Territories	131	7
TOTAL		7260	356

APPENDIX 11

Examination Reform

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

- (i) to make examination valid and reliable instruments for improving the entire teaching-learning process.
- (ii) to make them powerful instruments for improving the entire teaching-learning process.

Efforts to achieve the goals are being made by the Council through the reform of written examinations, practical examinations, oral examinations and observational and other techniques in both institutional evaluation and external examinations. The reforms at public examinations have, however, been limited mainly to the scholastic areas. Attempts have been made to constructively cover both scholastic and the non-scholastic areas (physical health, intelligence, personal and social qualities, interests, attitudes, participation in co-curricular activities, etc.) for the schemes of evaluation in schools. Under such schemes tools have been developed for the States of Rajasthan and Tamil Nadu to assess the various aspects of pupil growth and procedures have been developed for using the tools and results of assessment for the purpose of diagnosis and for promotion of further growth.

About the achievements of the programme could be mentioned.

1. Launching of examination reforms programmes in all the collaborating States and allocation of substantial State budget for the implementation in each case,
2. The implementation of the minimum essential programme of examination reform by all the collaboration States and initiation of efforts for developing and implementing the comprehensive programme;
3. Development and circulation of a large number of brochures of sample evaluation material to all the institutions of a particular State by the respective Board of Secondary Education,
4. The initiation of voluntary efforts for examination reform by the State Evaluation Units and several individuals.

During the year under report the following major programmes were undertaken :

1. A comprehensive programme of school evaluation covering both academic and non-academic aspects of pupil growth was develop-

ed in collaboration with the Directorate of School Education (State Evaluation Unit), Tamil Nadu.

- 2 A four-week course in educational evaluation was conducted for the officers of the State-level educational agencies and teachers' colleges
- 3 Manipur Board of Secondary Education joined the programme during the year and a workshop for training paper setters was organised in Languages and Social Sciences
- 4 A workshop was organised in collaboration with the Gujarat SSC Examination Board for training their paper setters in the core subjects
5. A short course in Educational Evaluation for the officers of the Army Education Corps and Training college was organized at Pachmarhi.
6. A workshop was organised for training paper setters of the Intermediate Examination in Physics, Chemistry, Biology and Mathematics for the Board of High School and Intermediate Education, U P
7. The Punjab School Education Board was provided technical help in conducting a workshop for the development of sample evaluation material in Hindi, Punjabi and English

APPENDIX 12

National Integration Project

The National Integration Project was started by the NCERT about five years ago at the instance of the Union Ministry of Education and Social Welfare. The main purpose of the project is to foster the idea of national integration amongst school children through various educational programmes. The programmes undertaken by the Council under the project are as follows :

- (a) Organization of Inter-State camps for students, teachers and Principals,
- (b) "Our India Project" in selected schools, and
- (c) Preparation of suitable instructional materials on the subject for students and teachers.

The activities conducted during 1973-74 under each of these programmes are described below :

1. (a) Organization of Inter-State Camps

Nine inter-State camps were organised during the year in different States of the country. In each camp, 75 students and 15 teachers participated for 15 days. The schools and venues of camps were selected by the Departments of Education of various States, representing both rural and urban areas. The students participating in the camps belonged to various communities, castes and creeds. Separate camps were organized for boys and girls. During camp life, opportunities are provided for social learning through exhibitions, field trips, excursions, activities for the promotion of physical health and safety, and literary, cultural and recreational programmes.

(b) Organization of Inter-State Camps for Teachers

Two camps exclusively for teachers were organized during the year at Chandigarh and Bombay. The participants represented all the States of the Union and they lived together for 10 days. The activities of these camps were primarily geared to improve the Programmes of inter-State camps for students and teachers and classroom teaching, develop follow-up programmes and material for students.

2. Our India Project

'Our India Project' forms an integral part of the overall programme of national integration through educational activities aims at making the children understand the unity in diversity which is a special characteristic of our country. During the year under report 50 schools from various States were selected to implement this project. A grant of Rs. 1,000 was

given to each school for the project. The activities of the project included collection of data, preparation of exhibits from the data, bringing out magazines/brochures based on the data collected, entering into pen-friendship with children of schools from different States, organizing elocution competitions and arranging exhibitions of the material produced.

3. Preparation of Instructional Materials

The main objective of the scheme is to prepare material in the form of hand-books, curriculum guides, supplementary readers, films and film-strips, etc., to gear up the teaching of Social Science, History, Geography Civics and Humanities in schools to foster national integration among students and teachers. During the year under report, the following material was prepared :

- Chitra Ek Rang Anek (Short stories).
- We Singh Together (Collection of 50 songs with notations)
- Teaching of Geography and National Integration—A Handbook.
- Film "Living Together" on activities of Kashmir Girls' Camp

4. Miscellaneous

The Department provided consultancy services to USEFI, Kendriya Vidyalaya Sangathan and some State Institutes of Education in some of these programmes.

A P P E N D I X 13

Population Education

The activities of the Population Education Cell of the Council during the year under report mainly relate to curriculum development, organization of workshops, publication of material, collaboration with States and assistance to outside agencies.

A syllabus on Population Education for Elementary and Secondary Teacher Training Courses was finalized during the year. The Cell also prepared some specimen teaching units on different aspects of population education and charts on demographic aspects. The Cell organized three workshops at Bhopal, Allahabad and Chandigarh. The Cell worked in close collaboration with the States of U P., Punjab, Haryana, Madhya Pradesh and Union Territory of Chandigarh for developing their programmes for population education for the school stage.

The publications of the Cell included :

- Teaching units on Population Education.
- Nutrition and Population Education.
- Two story books for children dealing indirectly with theme of Population Education.

APPENDIX 14

Grants 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.

The details in respect of financial assistance provided by the Council to various professional educational organisations during 1973-74 are given hereunder :

<i>S.No.</i>	<i>Name of Professional Educational Organisation</i>	<i>Amount of Grant Released in Rs.</i>
1.	All India Science Teachers Associations, Lodi Estate, New Delhi	6,000
2.	Association for the Promotion of Science Education, Madras	3,000
3.	Association of Mathematics Teachers of India, Madras	5,500
4.	Institute of Childrens' Films, Calcutta	5,000
5.	Bangiya Vijnan Parishad, Calcutta	2,500
6.	Indian Association of Programmed Learning	4,000
7.	Association of Geography Teachers of India, Madras	3,000
8.	Indian Association for Pre-School Education, New Delhi	4,000
9.	Alumni Association, C. I. E., New Delhi	2,500
10.	Alumni Association, R. C. E., Ajmer	3,000
11.	National Parent-Teacher Association of India, New Delhi	3,500
12.	Society for the Promotion of Education in India, Madras	1,500
13.	Indian Association of Teacher Educators, Delhi	8,000

APPENDIX 15

Grant-in-Aid for Approved Research Projects (GARP)

Under the GARP Scheme, the Council provides financial assistance to university departments of education, teacher-training colleges, research institutions, etc, for conducting research in education. The reports of the successfully completed research projects are printed by the Council if these are approved by the Research Sub-Committee of Programme Advisory Committee of NCERT.

During the year 1973-74, financial assistance was provided to 13 new and 10 on-going projects and assistance for publication to five persons, details of which are given in the Annexure.

ANNEXURE

Statement Showing the Grants Released During the Year 1973-74 under the Scheme of Grant-in-Aid for Approved Research Projects in Education

<i>S. No.</i>	<i>Name of the Institution</i>	<i>Title of the Research Project</i>	<i>Amount of Grant Released (in Rs.)</i>
1	2	3	4
<i>Continuing Projects</i>			
1.	Calcutta University, Calcutta	Development of Concept of Time in Children	2,800
2.	Department of Political Science, University of Rajasthan, Jaipur	Management of Primary Schools under Panchayati Raj in Rajasthan	15,000
3.	Department of Psychology, Utkal University, Bhubaneswar	Cognitive Growth as a Function of Socio.Cultural Stimulating Environment	5,200
4.	Osmania University, Hyderabad	A Comparison of Programmed Learning with Conventional Learning Techniques in Teaching Languages to Children	1,800
5.	Institute of English, Calcutta	Teaching Bengali as a Second Language in Schools in West Bengal	7,490
6.	Kurukshetra University, Kurukshetra	An Intensive Study of Innovations and Change and the Extent of Their Utilization in the Schools and Teacher Training Institutions of Haryana	10,000
7.	Ravishankar University, Raipur	Deviation from Standard Hindi of the Native Speakers of Other National Languages and Different Dialects of Hindi	9,920
8.	Sri Venkateswara University, Tirupati	Study of the Logical Thought Development in Children	5,650

1	2	3	4
9	Department of Psychology, Ravishankar University, Raipur	Construction and Standardization of Diagnostic Test of Basic Skills in Regional/Federal Hindi	3,250
10.	Government Teachers' Training College, Ajmer	An Investigation into the Quality of 'Unit Plan'	4,000
<i>New Projects</i>			
11.	Jadavpur University, Calcutta	Evaluation of Curriculum Material in New Mathematics	3,500
12	Banaras Hindu University, Varanasi	Development of a Teacher Attitude Inventory and a Study of Change in Professional Attitude of Student Teacher.	6,000
13	Ranchi University, Ranchi	Standardization of Culture Fair Intelligence Test Scale I for age group 4-9 in Indian Condition	5,600
14.	Annamalai University, Annamalainagar	A Study on the Manpower Needs and Planning regarding Teacher Education	5,900
15	Baroda University, Baroda	Production and Mediation Deficiency in Children Free Recall	2,000
16	Calcutta University, Calcutta	Survey report of Primary Schools and their Teachers in West Bengal	2,000
17	Institute of English, Calcutta	Teaching Bengali as a Second Language for class V.VI in Anglo Indian School in West Bengal	10,000
18.	Calcutta University, Calcutta	Cost of Elementary Education in West Bengal	25,000
19.	Government Teachers' Training College, Ajmer	A Comparative Study of the Efficacy of Various Methods of Supervision in Improving Teaching learning Processes & Students' Achievement	6,000
20.	Dnyana Prabodhini, Poona	Construction of Tests of Numerical Ability and Verbal Reasoning in Marathi	4,900

1	2	3	
21.	Board of Secondary Education, Rajasthan, Ajmer	An Analysis of Common Error & Shortcomings in the Answer Script of Candidates offering English, Physics, Chemistry, Mathematics & General Science	12,000
22.	Sardar Patel University, Vallabhvidyanagar	Study of Listening Comprehension in Gujarat of Pupils of Class VIII-X	5,000
23.	Government College of Education, Jabalpur	A Study of Impact of Training Programmes on Classroom Behaviour of Students-Teacher	5,000
<i>Assistance for Publication</i>			
24.	Dr L P. Mehrotra, Lecturer in Education Allahabad	A Psychological Study of Shutterers in School—thesis	500
25.	Shri R. C Srivastava, Lecturer, Central Institute of Education, Delhi.	Survey report on 'An Investigation into the areas, type and extent of Student participation in the Governance of Teacher Training Institutions'	500
26.	Dr. M R. Santhanam, State Institute of Education, Madras	Publication of 'A Study of Patterns of Teachers Influence in some selected Schools'	500
27.	Dr. M. G Chaturvedi, Reader, National Institute of Education, (NCERT), New Delhi	Publication of 'A Contrastive study of Hindi English Phonology'	1,000
28.	Dr. S. M. Mohan, Head of the Department of Psychology, Patna University, Patna	Investigation on some Correlates of Job Orientation of University Student held at Rajasthan University, Jaipur—consultant fee	500
Grand Total			1,60,810

APPENDIX 16

Collaboration with the States and Union Territories

A brief account of the programmes indicating collaboration between the State Governments and the Council during 1973-74 is given below.

1. Improvement of Teaching in Science and Mathematics

The Council continued to work very closely with almost all the States and Union Territories in implementing the Unicef-assisted science projects. During this year most of the States having completed the pilot phase of the project are making plans for wider introduction of the new science programmes in schools. Eighteen States and 6 Union Territories had sent 'plans of action' for the wider introduction of the science programmes. These have been scrutinized and comments were sent to the Ministry of Education and Social Welfare for further discussion with the States before the approval of the States plan. There has been a major change in the Unicef policy of assistance for the project from January 1974. The Unicef will now be phasing out from the middle-school stage and teacher-training colleges and will continue to support the project only at the primary level and teacher-training schools. During the year NCERT has produced 2,710 middle school kits for the supply to the States and Union Territories for completion of the pilot phase. The Unicef has supplied under the wider introduction plan primary kits to 9,400 schools covering 9 States and 5 Union Territories and middle school kits to 13,510 schools covering 11 States and 5 Union Territories. The supply of laboratory equipment and workshop tools to 100 teacher-training schools will be made by the Unicef for which the necessary number of teacher training schools from States have been screened and selected.

The Unicef is also assisting the quality improvement programme of science teaching by meeting 50 per cent cost of training of teachers from project schools for wider introduction of the science programme. The catalytic action of the Unicef-assisted projects is evidenced by the fact that apart from the schools covered by the 'wider introduction' programme of Unicef, four major States have plan to introduce the new science programme on an universal basis covering nearly 1,20,000 primary schools and 23,800 middle schools.

During the year 16 States were supplied with Unicef gift paper of about 3,000 metric tonnes.

2. Improvement of Teaching in Social Sciences and Humanities

An Orientation Course for teacher educators in History of the Secondary Teacher Training Colleges for the States in the eastern region was held at Calcutta. In the field of population education the Council collaborated with the States of U.P., Madhya Pradesh, Haryana, Punjab and Union Territory of Chandigarh in developing their population education programme for the school stage. Workshops were held in the above States to discuss

and finalise the programmes specially for the teacher-training levels. Nine Inter-State Camps for students and 2 for teachers were organised under the National Integration Project.

3. Curriculum Development in Work Experience

In the field of work experience the Council collaborated with Andhra Pradesh, Haryana, Madhya Pradesh, Karnataka, Kerala and Uttar Pradesh. The Council assisted in the development of syllabi and curricula materials for pupils and teacher training institutions and assisted in the development of experimental projects in selected schools. Some training programmes for teacher educators were conducted by the R.C.E Bhopal at Poona. Guidelines were developed for the introduction of work experience in 550 schools of Delhi.

4. Curriculum Development in Teacher Training

A number of workshops in collaboration with the State Education Departments and Teacher Training Colleges were organised in different institutions like Gujarat Vidyapeeth, Ahmedabad, Government College, Jullundur, Post-Graduate College, Jorhat, R G Teachers College, Porbander and Government Constructive Training College, Lucknow. These were part of the intensive teacher education programme of the Council and training of resource persons for experimental designs and projects in different subjects. Seminars and Workshops on "Methods of Teaching" and "Improvement of Student Teaching Programme at Elementary Levels" were respectively held at Basic Training College, Imphal and State Institute of Education, Banipur in collaboration with the respective State Education Departments concerned.

5. Examination Reform

The Examination Reform Unit continued to collaborate with the States in improving their programmes of school evaluation. The collaboration extended to develop tools for evaluating academic and non-academic aspects of pupil growth in Tamil Nadu. Workshops were organised for training paper-setters of Manipur Secondary Board of Education, Gujarat SSC Examination Board and Board of High School and Intermediate Education, U.P. The Punjab School Education Board was provided technical help in conducting workshop for the development of sample evaluation materials and languages—Hindi, Punjabi and English. A 4-week Course in Educational Evaluation was conducted for the officers of State level agencies and teachers colleges. A short course in Educational Evaluation was also organised at Pachmarhi for the officers of Army Education Course and Training Colleges.

6. Testing and Guidance Programmes

The Council supplied guidance literature and aids to about 700 institutions having a trained guidance worker on their staff. A Summer Institute in Child Development was conducted at Shantiniketan to acquaint staff of Primary and Pre-primary Training Institutes with the latest trends

in different aspects of Child Development. A number of workshops and seminars were held at New Delhi and R.C.E., Bhubaneswar, to acquaint State participants with the general principles and techniques of behaviour modifications in school setting. A 5-day Seminar on Guidance of Orientation of District Education Officers and Inspectors for the eastern Region was held at R.C.E., Bhubaneswar. The second phase of a programme learning course for mathematics teachers of Delhi High Secondary Schools was held for 15 days.

APPENDIX 17

Collaboration with the Ministry of Education and Social Welfare

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

1. Science Education Project

This is a national project for the improvement of science education at all levels of schools with the assistance of the Unicef. The pilot phase of the project commenced from 1969-70 and has been taken up by most of the States and Union Territories. During the pilot phase the NCERT continued to supply syllabi, instructional materials and kits to all the participating schools which were on an average 50 primary and 30 middle schools in each State/Union Territory which undertook this programme. The Ministry assisted 50 per cent of the expenditure concerned with preparation of instructional materials and training of teachers, which was paid by the Council and reimbursed to it by the Ministry. About a dozen States have already launched the wider introduction of the programme. The number of schools receiving assistance for wider introduction in various States/Union Territories are about 10,000 primary and 13,500 middle schools. The catalytic action of this project is borne by the fact that in four major States the programme has been universalised, whereas the 'wider introduction' programme would have benefited only a limited number of students. This will cover nearly 1,00,000 additional primary and 24,000 middle schools. NCERT continues to give academic assistance to the States for the wider introduction of the curricular programme.

The Unicef also assists the States in providing laboratory science equipment, workshop tools and library books for teacher training institutions. NCERT receives these consignments at the ports and arranges the delivery to the consignee institutions on behalf of the Ministry. Limited quantities of paper is also donated by the Unicef to the Government of India for supply to the States for publishing various instructional materials under this project. Distribution of over 6,000 tonnes of papers to States have been done by NCERT on behalf of the Ministry.

2. National Integration Project

A National Integration Project initiated by the Ministry of Education and Social Welfare in 1970-71 continued to be implemented by the Council. The project aims at promoting national integration among school children through various educational programmes like organisation of inter-state camps for students and teachers and special camps for teachers

and principals, introduction of "Our India Project" in selected schools and preparation and production of instructional materials relevant to the theme for students and teachers. A full report of the work done during 1973-74 has been given in Appendix 12.

3. Population Education

Since 1970-71 a special Unit on Population Education was set up in the Council at the instance of the Ministry of Education and Social Welfare. This Unit is responsible for formulating and implementing appropriate programmes on population education at the school stage. A variety of educational literature has been produced and States have been helped in introducing population education in their school curriculum. Specific details of the work done by the Unit in 1973-74 are in Appendix 13.

4. Development of Curriculum for the 10+2 Schooling Pattern

In accordance with the recommendations of the Central Advisory Board of Education the Ministry recommended the adoption of an uniform pattern of school and college classes called the 10+2+3 pattern—in all States and Union Territories. The Ministry entrusted the Council the task of developing new curricula in terms of the changing socio-political need of the country for promoting national goals of democracy, socialism and secularism. It was felt that the new curricula must inculcate the cherished values of our society and develop the necessary skills and attitudes for responsible citizenship and productive efficiency. The Council took up the task of preparing a draft articulated and co-ordinated curriculum for the 10+2 schooling pattern. This curriculum lays emphasis on work experience, citizenship education, art education, and health and physical education along with strengthening of other school subjects. It also incorporates ideas like population education, national integration and promotion of values through a variety of school programmes. This draft curriculum will be finalised through a series of seminars and workshops to secure the collaboration and active participation of the States during the next year.

5. National Prize Competition for Children's Literature

The scheme of National Prize Competition for Children's Literature was entrusted to the Council by the Ministry of Education and Social Welfare for implementation, from the year 1970-71. Books on Hindi and different regional languages submitted have been evaluated for award during this year.

6. National Board of School Textbooks

The Department of Textbooks of N.I.E. continued to serve as the academic secretariat of the National Board of School Textbooks during the year under report. Follow-up action of the recommendations of the earlier meeting of the Board was taken during the year.

7. Rural Talent Search Scheme

The Ministry of Education and Social Welfare has given the Council the responsibility of providing academic guidance to the States for selecting talented students from the rural areas for award of national scholarships at the secondary stage. Though the special unit proposed to be

set up for undertaking this responsibility could not be established during the year under report, the Council, however, continued to offer academic guidance to the States through some ad hoc arrangements which had been worked out on the basis of experience gained from the Council's programme of examination reform and National Science Talent Search.

8. Crash Programme for Evaluation of School Textbooks

The Ministry of Education and Social Welfare has entrusted to the Council the responsibility of implementing a crash programme of evaluating school textbooks. The evaluation of textbooks used in English medium schools have been taken up from the stand-point of national integration. A total number of 3,000 books are estimated to be evaluated covering the subjects of Social Studies, History, Geography, Civics, Moral Science, Arabic, Persian, Sanskrit, English, Hindi and other regional languages. A pilot project has been undertaken to evaluate the textbooks of four English medium schools in Delhi.

The Department of Textbooks also evaluated, at the instance of the Ministry of Education and Social Welfare, a set of books published by a private publisher for judging their suitability as supplementary reading books in schools

9. National Council of Teacher Education

The Department of Teacher Education of the N.I.E has been assigned the responsibility of functioning as the secretariat of the National Council of Teacher Education.

10. Miscellaneous

The Council also offered the comments/advice on a large number of references received from the Ministry of Education and Social Welfare during the year under report. Besides, co-operation was extended to the Ministry in formulating and implementing those items of bilateral cultural exchange programmes with which the Council was concerned

APPENDIX 18

International Collaboration

During the year under report, the Council continued to receive assistance from international agencies, like Unesco, Unicef and the UNDP. Many officers of the Council went abroad to attend seminars, conferences, on special assignments or on advanced level training under various fellowship programmes. Several experts from overseas visited the Council and its institutions. Some of them worked as Consultants while others underwent training, in the Council. A detailed account of Council's activities in this sphere is given below

1. Equipment and Expertise Received from Overseas

1 01 Under the Unesco-Unicef assisted science teaching project three experts, namely, Mr O H Walker, Mr J H Strawson and Mr El. Tohamy continued to assist the Council in developing instructional materials, audio-visual equipment and aids in Science and Mathematics. They left after completing their term

1 02 Mr A Planel, Chief Technical Adviser, who was deputed by the Unesco to advise the setting up of the Centre for Educational Technology also left after completing his assignment.

1 03 Under the Unicef-assisted science teaching project the allotment of 5,500 tonnes of printing paper worth about Rs. 18 crores arrived in the ports and were distributed to various State Governments. Three shipments of laboratory science equipment and 13 shipments of library books worth over Rs 2 lakhs were also received at the ports and distributed to key institutions all over the country.

2. Council's Collaboration in International Research Projects

2 01. The Department of Educational Psychology and Foundations of Education continued to participate in an international study involving comparisons of educational achievements in reading comprehension and science. The project is sponsored by the International Association for the Evaluation of Educational Achievement. The national report for India, emphasizing the implications of work done in India has been prepared

3. Council's Training Programme for Foreign Educators

3 01 The Council organised a three-month training programme for a group of 3 Afghan Science Supervisors on ECAFE Fellowship in the Department of Education in Science and Mathematics and the Central Science Workshop.

3 02 The Council arranged a special intensive training programme in the Department of Education in Science and Mathematics for 6 Indonesians on a Unesco Fellowship Programme. They were apprised with curriculum development, improvement in preparation of instructional materials in Science and Mathematics and problems of design and production of equipment. They also visited the Regional College of Education, Ajmer.

3 03 The Council arranged a special six-week training programme for Mr. B P Lohani, Chief, Science Equipment Centre, Nepal who was deputed by the Unesco from 3rd September 1973. The training was in the field of production of school science equipment and instrumentation at the Department of Education in Science and Mathematics and the Central Science Workshop.

3 04. The Council made a specially tailored three-month training programme in Audio-Visual Education at the Department of Teaching Aids for Mr. Saiyad Akbar Sekandar from Afghanistan, who was deputed by the Ministry of Education, Government of India.

3 05. The Council arranged a five-week training programme in the Department of Teacher Education for Miss Nehla Banna from Gaza on a Unesco Fellowship in the field of in-service education for teachers. She also visited the Regional College of Education, Mysore.

3 06 The Council arranged a special ten-month training course in Teacher Education at Primary level at the Regional College of Education, Mysore for nine trainees from Maldives.

4. Deputation of Council's Officers Abroad for Advanced Training under Fellowship Programmes, etc.

4 01. Shri Pritam Singh and S H Khan, Readers Department of Textbooks went to the U K. under the Commonwealth Education Fellowship Scheme for six months from October, 1973.

4 02 Shri G K. Virmani of the Department of Teaching Aids went on a two-month training programme to the USSR on a Unesco Fellowship under the Secondary Science Teaching Project.

4 03 Shri B M. Gupta of the Workshop Department went for six months to the U K. in March, 1974 on Commonwealth Education Fellowship.

5. Deputation of Council's Officers Abroad for Participation in International Seminars/Workshops/Conferences

5 01. Kumari Indira Malani, Reader in the Department of Educational Psychology and Foundations of Education was deputed to participate in a Unesco-NIER Sponsored Research Workshop on Innovation in Classroom Teaching at the First Level of Education at Tokyo from 17th to 24th January, 1974.

5.02 Shri N. Chakravarty, Head of the Publication Unit was deputed to participate in the Experts Meeting on Typography in Asia at Tokyo from 26th February to 1st March 1974.

5 03 Shri B S Parakh, Reader and Shri Ramesh Chander, Lecturer in the Department of Social Sciences and Humanities were deputed to participate in the field of Operational Seminar on Post-Literacy Activities held at Manila from 25 March to 15 April 1974

5 04. Dr (Smt) B Raju, Reader in the Department of Teacher Education was deputed to participate in Unesco-sponsored seminar on Nutrition held at Khartoum from 19 to 24 January 1974

5 05 Shri K.V. Rao, Reader in the Department of Education in Science and Mathematics was deputed by the Government of India to visit Bangladesh from 8 to 12 March 1974

5 06. Smt. V Mulay, Head of the Centre for Educational Technology participated in the Programme Development Meeting on Asian Programme for Educational Innovations and Development organised by the Unesco at Bangkok from 5 to 13 November 1973

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

6 01 Shri T.S Mehta, Reader in the Department of Education in Social Sciences and Humanities went on deputation to the Unesco for two years from 8 March 1974

6.02 Shri Shankar Narayan, Reader in the Department of Teaching Aids proceeded to Kenya on an Unesco assignment as Consultant to the Kenya Functional Literacy Project for 4 months from 2 March 1974

6 03 The following officers of the Council who had gone on various foreign assignments in the previous year continued on foreign service during the year also :

- (i) Dr R H. Dave, Head, Department of Textbooks at Unesco Institute for Education, Hamburg as Senior Programme Officer.
- (i) Dr A Raoof, Field Adviser in the Council to Unesco as a Specialist in Principles of Teaching at the Kabul Academy of Teacher Education
- (iii) Dr M C Pant, Head, Department of Education in Science and Mathematics to Unesco as Senior Expert, Science Curriculum, Kabul.
- (iii) Shri S S Sharma, Lecturer in the Central Institute of Education, Delhi to Unesco as a Specialist in Teacher Training in Afghanistan.

7. Other Collaboration by the Council in International Field

7.01. Shri B. Guru, Lecturer in the Department of Education in Science and Mathematics received an Unesco assignment to write three chapters on a Resource Book on "Biology of Human Population."

7.02. The Council purchased and despatched school science equipment worth about Rs 5,000 for donation by the Government of India to Trinidad for the Ashram College, San Fernando, Trinidad

7.03. On request by the Indian Embassies concerned, the Council assisted the purchase of school science equipment and apparatus for the following schools

(i) India School in Kabul

(ii) Gandhi Memorial School, Djakarta, Indonesia

7.04 On behalf of the Government of India, the Council supplied a complete set of Science kits and related instructional materials to the Indian High Commission in Tanzania for presenting them to the Government of Tanzania.

7.05. The Council assisted the Bangladesh Government in the purchase of science equipment and apparatus worth Rs 16 lakhs donated by the Government of India.

7.06 A Special Mobile Science Laboratory was prepared by the Workshop Department for the Government of India for presenting the same to Bangladesh Government

7.07. A Seminar-cum-Exhibition of German Educational Toys was organised at Delhi by the Centre for Educational Technology in October, 1973 in collaboration with the Department of Education in Science and Mathematics and Max Muller Bhavan

7.08. Papers were presented on teaching of science and mathematics in a seminar organised by Max Muller Bhavan at Calcutta in September, 1973

7.09 The Department of Education in Science and Mathematics assisted the Polish Information Centre at Delhi in the organization of an exhibition on school equipment

8. Visitors to the Council from Abroad

A number of foreign dignitaries and visitors visited the NCERT during 1973-74. A brief account of visits by outstanding educationists is given below :

8.01 A three member team of Japanese National Commission for Unesco under the leadership of Mr. Hisee Tawarda of this Commission visited the Department of Education in Science and Mathematics and the Workshop Department on 16-4-1973. The other two members are Mr Motofumi Kate, Deputy Head of the Japanese National Commission for Unesco and Mr. Sadake Takashama of the National Federation of Unesco Associations in Japan. They took keen interest in the instructional materials and the science kits developed in the Council

8.02 Mrs. Margaret Fletcher, Education Minister of U.K. and Sir William Peyli, Permanent Under Secretary of State for Education, U.K., visited the Council on 24-4-1973

8.03. A group of 20 American School Teachers and Curriculum specialists of Laramie Country from the State of Wyoming visited the Council on 7-7-1973.

8.04. A high-level Burmese delegation under the leadership of Dr Nyi Nyi, Deputy Minister of Education visited the Council and its various departments on 18-7-1973.

8.05 A group of 5 American Teachers from the University of Michigan under the leadership of Mr Joseph Viani were on a study-cum-observation tour to India and visited the Council on 30 July 1973.

8 06. Mr Bhola Prashad Lohani, Acting Chief Technology, Science Equipment Centre, Ministry of Education, Nepal was on a study tour to the Central Science Workshop of the NCERT from 5 July 1973 to 12 July 1973

8.07. The Council arranged the programme of a two-week visit of a three-member Soviet delegation led by Mr G.G. Vasilov, Deputy Minister R.S.F.S.R., from 5th November, 1973. They spent some time in seeing round the Council and its activities

8 08 Mr George Strangler, Dean of Administration, Orange County Community College, Middle Town, New York visited the Council on 11th November, 1973

8 09. Mr Abdul Rehman-bin-Abdul Jalal, High Commissioner of Malaysia, visited the Central Institute of Education on 12th November, 1973

8 10 Prof. D K Hayes, Chairman, Department of Educational Administration, University of Nebraska and Adviser to the Planning Committee of the National Conference of Professors of Educational Administration paid a visit on 16 November, 1973 to study the NCERT.

8 11 Smt Chandra Thapa and Kumari Meena Kumari, two Nepali teachers visited the NCERT under an Unesco assignment for three months for a study programme from 23 January 1974

8 12 Miss Nehla Benna and Mr. Hisham Dajani were on a study programme for one month under a Unesco Fellowship to study the modern techniques of in-service teacher education from 28 January, 1974. They also visited the Regional College of Education, Mysore

8 13 Mr Md Anwar Ali, Deputy Educational Adviser, Ministry of Education, and Secretary, Bangladesh National Commission for Unesco, visited the Department of Education on 21 December 1973

8.14. A high level team of 7 Afghan nationals visited the Council for training under Unesco Fellowship from 19 to 25 January 1974.

8.15. A seminar group of American Social Study Professors and Curriculum Directors visited the Council in March, 1974 and had discussions with the Indian counterparts in the Department of Education in Social Sciences and Humanities.

8 16 Dr. (Smt) Mani Wuempoonpel, Unesco Specialist in Home Economics and Population Education visited the Department of Education in Social Sciences and Humanities on 13 March 1974.

8 17 Shri J.M. Mashombe, Deputy Chief Inspector of School, Zambia visited the Council under the Commonwealth Educational Co-operation Plan on 19 March 1974 to discuss the current developments in the field of primary and secondary education with particular reference to modernization of curricular and examination reform

8 18 Smt E. Bay Tidy, an eminent educationist from U.K. visited the Centre for Educational Technology and gave a talk on "Innovation in Education"

8.19. Shri Dieuzede, Chief Media Division, Unesco visited the Centre for Educational Technology on 7 December 1973.

8.20. Shri Eric Prabhakar of the Media Division, Unesco visited the Centre for Educational Technology

8.21. Prof. J. Black, Pro-Vice-Chancellor of Bath University addressed the members of the Centre for Educational Technology on "Teachers and Educational Technology."

8.22 Prof. Michael Eraut, Head of the Department of Educational Technology, Sussex University visited the Centre for Educational Technology on 17 November 1973.

8.23. Shri George Culling, Director, Teacher Training Institute, London visited the Centre for Educational Technology on 12 March 1974

8.24. Shri Bartram and Shri Tom Singleton of the Centre for Educational Development Overseas, England visited the Centre for Educational Technology.

8.25 Dr. Arye Perlberg, Associate Professor, Teacher Training Department, Technion, Israel Institute of Technology, Haifa visited the Department of Teacher Education on 23 August 1973 and delivered two lectures on "Micro Teaching and other researches being conducted at his laboratory" and "on Programmed Learning"

8.26. Dr. C. H. Fernando, Professor of Biology, Waterloo University Canada, visited the Regional College of Education, Bhopal

APPENDIX 19

Publications (1973-74)

The following titles were brought out during 1973-74 :

Textbooks

1. Geometry Part III (Reprint)
2. Arithmetic-Algebra Part III (Reprint)
3. Algebra Part I for Hr. Secondary (Reprint)
4. Biology Section III (Reprint)
5. Ekanki Sankalan (Reprint)
6. Kahani Sankalan (Reprint)
7. English Reader Book IV (SS) (Reprint)
8. Rani Madan Amar (Reprint)
9. Biology Part III (Reprint)
10. Kavya Ke Ang (Reprint)
11. Physics Part II (Reprint)
12. Biology Section II (Reprint)
13. English Reader Book (SS) (Reprint)
14. Biology Part II (Reprint)
15. Hindi Reader Book III (Reprint)
16. Rashtra Bharati Part II (Reprint)
17. Geometry Part II (Reprint)
18. Chemistry for Middle Schools Part II (Reprint)
19. Biology Part I (Reprint)
20. Physics Part I (Reprint)
21. Aadhunik Bharat (Reprint)
22. Sanskritodayah (Reprint)
23. Rashtra Bharati Part I (Reprint)
24. Our Constitution and the Government (Reprint)
25. Let's Learn English Book I (SS) (Reprint)
26. Physics Part III (Reprint)
27. Kavya Bharati
28. Medieval India (Reprint)
29. English Reader Book II (SS) (Reprint)
30. Prachin Bharat (Reprint)
31. Australia and America (Reprint)
32. Let's Learn English Book II (Reprint)
33. Ancient India (Reprint)
34. Biology Section I (Reprint)
35. Chemistry Part I (Reprint)
36. Gadya Bharati
37. Physics Part I (Experimental Edition)
38. India and the World (Reprint)
39. Our Country India Book II (Reprint)
40. Regional Geography—A Textbook for Secondary Schools

41. Elements of Book-keeping and Accountancy (Reprint)
42. Science is Doing Book IV (Reprint)
43. Modern India for Middle Schools
44. Europe aur Bharat
45. Let's Learn English Book III (SS) (Reprint)
46. Science is Doing Book III (Reprint)
47. Insight into Mathematics Book I (Reprint)
48. Vigyan Aao Karke Seekhen Book III (Reprint)
49. Madhay Kalin Bharat (Reprint)
50. Insight into Mathematics Book III
51. Algebra for Secondary Schools Book II (Reprint)
52. Economic Geography (Reprint)
53. Practical Geography (Reprint)
54. Biology Book 4 (Study Group)
55. Biology Book 5 (Study Group)
56. Biology Book 6 (Study Group)

Teachers' Guides and Workbooks

57. Workbook to Hindi Reader II (Reprint)
58. Workbook to Hindi Reader III (Reprint)
59. Workbook to Hindi Reader V (Reprint)
60. Samanya Vigyan Part III—A Handbook for Teachers
61. Workbook to English Reader Book I (SS) (Reprint)
62. Hindi Handwriting Book I (Reprint)
63. Hindi Handwriting Book II (Reprint)
64. Hindi Handwriting Book III (Reprint)
65. Workbook to Hindi Primer (Reprint)
66. Workbook to Let's Learn English Book II (Reprint)
67. Workbook to Hindi Reader IV (Reprint)
68. Teacher's Guide to Science is Doing for Class V (English)

Supplementary Readers

69. Space Flights
70. Bharat ke Swadhinta Sangram
71. Sri Ramakrishna (Hindi)
72. Meghnad Saha ke Jeevan Aur Karya
73. Bharat ki Kathayen (Reprint)
74. About Flying
75. Legends of India (English)
76. Rocks Unfold the Past
77. Medicinal Plants
78. Plant Viruses
79. Birds and Bird Watching

Reports, Research Monographs and Other Publications

80. Teaching Units in Civics for Middle Stage Volume IV
81. Annual Report 1971-72 (Hindi)
82. Annual Report 1971-72
83. Prathamik Star Par Shaikshik Kshati (Hindi)
84. Teaching Units in Geography for High and Hr. Secondary Stage

- 85 The Teacher Speaks Volume 6
- 86 Hindi ki Shikshan Ekayian Part I
- 87 Seminar Readings 1973-74 (Folder)
- 88 Book of Budgetary Allocations 1973-74
- 89 Value Oriented School Education
- 90 Nicobar Reader I
- 91 Naye Desh Ke Uday
- 92 Report of the Third Meeting of the National Board of School Textbooks
- 93 Hindi Shikshan ki Ekayian Part II
- 94 Teaching Units in Civics for Middle Stage Volume VI
- 95 Preparation, Production and Evaluation of Textbook in Mathematics
- 96 National Science Exhibition for Children
- 97 Audit Report 1970-71
- 98 Chitra Ek Roop Anek
- 99 Audit Report 1970-71 (Hindi)
- 100 Guide Booklet for Nursery School Teachers (Reprint)
- 101 NCERT Catalogue 1974
- 102 Teaching Units in Economics for High and High Secondary Stage
- 103 Portrait of Indian Scientists (Booklet)
- 104 Preparation, Production and Evaluation of Textbooks (GS)
- 105 NCERT in the Service of Nation's Children (Reprint)
- 106 Teaching Units in History for Middle Stage Volume II
- 107 Annual Report 1972-73
- 108 Report of the Second National Conference on School Textbooks
- 109 Experimental Projects in Secondary Schools (Folder)
- 110 Language Teaching and Learning in India
111. A Scheme of Assistance for Projects and Experiments
- 112 The Teacher Speaks Volume 9

Journals

- 113 *NIE Journal* November, 1972, January, March, May, July, September, November, 1973, and January 1974
- 114 *Indian Educational Review*, January 1973
- 115 *School Science*, March 1972
- 116 *NIF Newsletter*, December 1972, March 1973

ANNEXURE

Statement Showing the Position Regarding Adoption/Adaptation of NCERT Textbooks

S No	Title	States/Union Territories which have adopted/adapted/translated
1	2	3

Textbooks (English Version)

GENERAL SCIENCE

- | | | |
|----|---|--|
| 1. | Science is Doing - A Textbook for class III | Central Schools, Orissa (Translated into Oriya), Tripura (Translated into Bengali) |
| 2. | Science is Doing : A Textbook for class IV | Central Schools, Tripura (Translated into Bengali), J & K (Translated into Urdu) |
| 3. | Science is Doing A Textbook for class V | -do. |

BIOLOGY

- | | | |
|---|---|--|
| 4 | Biology (Science for Middle Schools) Part I for class VI | Central Schools, Manipur (Translated into Manipuri) J & K (Translated into Urdu), Orissa (Translated into Oriya) |
| 5 | Biology (Science for Middle Schools) Part II for class VII | Central Schools, Tripura (Translated into Bengali) |
| 6 | Biology (Science for Middle Schools) Part III for class VIII | Central Schools, Manipur (Translated into Bengali) |
| 7 | Biology A Textbook for Higher Secondary Schools, Section I }
Biology : A Textbook for Higher Secondary Schools, Section II }
Biology A Textbook for Higher Secondary Schools, Section III | Madhya Pradesh, Tamil Nadu, Nagaland, Punjab, A & N Islands, Central Board of Secondary Education, Goa, Daman & Diu, H.P., Manipur, Haryana, Central Schools |
| 8 | | |
| 9 | | |

Note: Science textbooks up to middle level have been taken by all the State Governments and Union Territories under the Unicef Science Pilot Project

- | | | |
|--|---|--|
| 10. Biology A Textbook for Higher Secondary Schools, Sections IV and V | } | M P., Tamil Nadu, Nagaland, A & N Islands, Central Board of Secondary Education, Goa, Daman & Diu, Manipur, Haryana, Central Schools |
| 11. Biology A Textbook for Higher Secondary Schools, Sections VI and VII | | |

CHEMISTRY

- | | | |
|---|---|--|
| 12. Chemistry Science for Middle Schools Part I (for class VII) | } | Central Schools, Manipur (Being translated into Manipuri), Tripura (Being translated into Bengali) |
| 13. Chemistry Science for Middle Schools Part II (for class VIII) | | |

PHYSICS

- | | |
|--|---|
| 14. Physics Science for Middle Schools Part I (for class VI) | Central Schools, Manipur (Being translated into Manipuri), J & K (Translated into Urdu), Orissa (Translated into Oriya), Tripura (Translated into Bengali), Tarraqi-e-Urdu Board (Translated into Urdu) |
| 15. Physics Science for Middle Schools Part II (for class VII) | Central Schools, Manipur (Translated into Manipuri), Tripura (Translated into Bengali), Tarraqi-e-Urdu Board (Translated into Urdu) |
| 16. Physics Science for Middle Schools Part III (for class VIII) | Central Schools, Manipur (Being translated into Manipuri), Tripura (Being translated into Bengali), Tarraqi-e-Urdu Board (Translated into Urdu) |

MATHEMATICS

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|---|--|
| 17. Arithmetic Algebra Mathematics for Middle Schools Part I (for class VI) | Central Schools, Manipur (Being translated in Manipuri), Rashtriya Sanskrit Sansthan (Translated into Sanskrit), Tarraqi-e-Urdu Board (Translated into Urdu) |
| 18. Arithmetic Algebra Mathematics for Middle Schools Part II (for class VII) | Central Schools, Manipur (Being translated into Manipuri), Rashtriya Sanskrit Sansthan (Being translated into Sanskrit) |
| 19. Arithmetic Algebra Mathematics for Middle Schools Part III (for class VIII) | Central Schools, Manipur (Being translated into Manipuri) |

20	Geometry : Mathematics for Middle Schools Part I (for class VI)	Central Schools, Manipur (Being translated into Manipuri)
21	Geometry : Mathematics for Middle Schools Part II (for class VII)	Central Schools -do-
22	Geometry : Mathematics for Middle Schools Part III (for class VIII)	Central Schools -do-
23	Algebra : A Textbook for Secondary Schools Part I	Nagaland, A&N Islands, Central Board of Secondary Education, Manipur, Central Schools
24	Algebra . A Textbook for Secondary Schools Part II	
25	Insight into Mathematics . Book I for class I	
26	Insight into Mathematics . Book II for class II	Central Schools -do-
27	-do- Book III -do- III	Central Schools -do-
28	-do- Book IV -do- IV	Central Schools -do-
29	Engineering Drawing . A Textbook for Technical Schools	Central Board of Secondary Education, Tarraqi-e-Urdu Board (Translated into Urdu)

SOCIAL STUDIES

30	Our Country India Book I (for class III)	Manipur (Being translated into Manipuri), Tarraqi-e-Urdu Board (Translated into Urdu)
31	Our Country : India Book II (for class IV)	-do-
32	India and the World Book III (for class V)	Manipur (Being translated into Manipuri), Tarraqi-e-Urdu Board (Translated into Urdu)
33	Social Studies . A Textbook for Higher Secondary Education, Vol I	Central Schools (C.B S E.)

GEOGRAPHY

34	Practical Geography A Textbook for Secondary Schools	Central Board of Secondary Education, Manipur, Central Schools, Madras University (for PUC), Kerala (Being translated into Malayalam).
35	Economic Geography : A Textbook for Secondary Schools	Central Board of Secondary Education, A and N Islands, Manipur, Central Schools, Kerala (Translated into Malayalam).

1	2	3
36 Physical Geography . A Textbook for Secondary Schools		Central Schools, Mysore University (Translated into Kannada), Kerala (Being Translated into Malayalam).
37 Africa and Asia : A Geography Textbook for Middle Schools Part I for class VI.		Arunachal Pradesh
38. Australia and America A Geography Textbook for Middle Schools.		Tarraqi-e-Urdu Board (Being translated into Urdu).
HISTORY		
39. Ancient India : A Textbook of History for Middle Schools (for class VI)		Manipur (Being translated into Manipuri), Tarraqi-e-Urdu Board (Being Translated into Urdu).
40 Medieval India . A Textbook of History for Middle Schools (for class VII)		—do—
41. Modern India	—do—	Tarraqi-e-Urdu Board (Being Translated into Urdu).
COMMERCE		
42. Elements of Book-keeping and Accountancy A Textbook for classes IX-XI		Central Board of Secondary Education, Central Schools
43. Economics and Commerical Geography of India . A Textbook for Secondary Schools		Tarraqi-e-Urdu Board (Being Translated into Urdu).
SPECIAL SERIES (ENGLISH TEXTBOOKS)		
44. Let's Learn English (for class III).		Arunachal Pradesh ,Central Schools ,Tibetan Schools
45 Let's Learn English Book II for class IV		Central Schools
46. Let's Learn English Book III for class V.		Central Schools.
47. English Reader Book I for class VI		Central Schools.
48. English Reader Book II for class VII.		Central Schools.
49 English Reader Book III for class VIII.		Central Schools.
50 English Reader Book IV for class IX		Central Schools

51. English Reader Book V for class X

Central Schools

GENERAL SERIES (ENGLISH TEXTBOOKS)

52. English Reader Book I for class VI

Punjab, Haryana, Himachal Pradesh, Bihar, Delhi, Arunachal Pradesh, Maharashtra Board, Madhya Pradesh

53. English Reader Book II for class VII

Haryana, Punjab, South Delhi, Himachal Pradesh, Bihar, Arunachal Pradesh, Madhya Pradesh

54. English Reader Book III for class VIII

Madhya Pradesh, Himachal Pradesh

55. English Reader Book IV for class IX

Himachal Pradesh, Haryana, Maharashtra Board, Punjab and Arunachal Pradesh

56. English Reader Book V for class X

Guru Nanak University for P U Classes

BIOLOGY

Textbooks (Hindi Version)

57. Vigyan Aao Karke Seekhen for class III

Madhya Pradesh, Delhi Administration

58. Vigyan Aao Karke Seekhen class IV

Madhya Pradesh, Delhi Administration

59. —do— class V

—do— —do—

60. Biology : Science for Middle Schools Part I

Delhi Administration, M P

61. Biology : Science for Middle Schools Part II

Delhi Administration

62. Biology : Science for Middle Schools Part III (for class VIII).

Delhi Administration, M.P.

63. Biology : A Textbook for Higher Secondary Schools Section I.

Central Board of Secondary Education, Goa, Daman, & Diu.

64. Biology : A Textbook for Higher Secondary Schools Section II

Central Board of Secondary Education

65. Biology : A Textbook for Higher Secondary Schools Section III

Central Board of Secondary Education

66. Biology : A Textbook for Higher Secondary Schools

Central Board of Secondary Education

Sections IV & V

CHEMISTRY

67. Chemistry Science for Middle Schools Part I for class VII.

Delhi Administration

68. Chemistry Science for Middle Schools Part II for class VIII

Delhi Administration M.P (Study Group Material).

PHYSICS

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|-----|---|---------------------------|
| 69. | Physics ; Science for Middle Schools Part I for class VI. | Delhi Administration, M P |
| 70 | Physics : Science for Middle Schools Part II for class VII. | Delhi Administration. |
| 71. | Physics : Science for Middle Schools Part II for class VIII | Delhi Administration, M.P |

MATHEMATICS

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|-----|--|-----------------------|
| 72 | Arithmetic Algebra · Mathematics for Middle Schools Part I for class VI. | Delhi Administration. |
| 73. | Arithmetic-Algebra : Mathematics for Middle Schools Part II for class VII. | Delhi Administration |
| 74 | Arithmetic-Algebra for class VIII for Middle Schools Part III. | Delhi Administration |
| 75. | Geometry · Mathematics for Middle Schools Part I class VI. | Delhi Administration. |
| 76. | Geometry Mathematics for Middle Schools Part II class VII | Delhi Administration. |
| 77. | Geometry · Mathematics for Middle Schools Part III for class VIII | Delhi Administration. |

SOCIAL STUDIES

- | | | |
|-----|--------------------------------------|--|
| 78. | Hamari Dilli for class III. | Delhi Administration, Bihar A & N Islands Jamia Millia Islamia (Translated into Urdu) |
| 79 | Hamara Desh Bharat for class IV. | Delhi Administration, Bihar, Haryana, A & N Islands, Jamia Millia Islamia (Translated into Urdu) |
| 80 | Bharat Aur Sansar for class V. | Central Schools, Delhi Administration, A & N Islands, Bihar, Jamia Millia Islamia (Translated into Urdu) |
| 81. | Samajik Adhyan Part I for class V | Central Schools |
| 82. | Samajik Adhyan Part II for class VI. | Central Schools. |

CIVICS

- | | | |
|----|--|--|
| 83 | Sathaniya Shasan A Textbook for Civics for Middle Schools for class VI | Bihar, Delhi Administration Central Schools. |
|----|--|--|

- | | |
|--|--|
| 84. Shashan Aur Samvidhan— A Textbook for Civics for Middle Schools for class VII. | Delhi Administration, Central Schools |
| 85. Swatantra Bharat— A Textbook of Civics for Middle Schools for class VIII. | Delhi Administration, Central Schools. |

HISTORY

- | | |
|---|---|
| 86. Prachin Bharat : A Textbook for Middle Schools for class VI. | Delhi Administration, Bihar, Central Schools. |
| 87. Madhyakalin Bharat . A Textbook for Middle Schools for class VII. | Delhi Administration, Bihar, Central Schools |
| 88. Adhunik Bharat. | Delhi Administration, Bihar, Central Schools. |

GEOGRAPHY

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|---------------------------|---------------------------------------|
| 89. Africa Aur Asia | Delhi Administration, Central Schools |
| 90. Australia Aur America | —do— |
| 91. Europe Aur Bharat | —do— |

HINDI

- | | |
|---|---|
| 92. Rani Madan Amar : Hindi Primer for Beginners. | Bihar, Delhi Administration, A & N Islands, Laccadives, Central Schools, Arunachal Pradesh for class III. |
| 93. Chalo Pathshala Chalen . Hindi Reader for class I | Delhi Administration, A & N Islands, Arunachal Pradesh for class IV, and Bihar. |
| 94. Aao Ham Padhen for class II | Delhi Administration, Bihar, A & N Islands, Central Schools, Arunachal Pradesh for class V. |
| 95. Aao Padhen Aur Samjhen ; Hindi Reader for class IV | —do— |
| 96. Aao Padhen Aur Seekhen . Hindi Reader for class IV. | Delhi Administration, Bihar, A & N Islands, Arunachal Pradesh for class VIII. |
| 97. Aao Padhen Aur Khojen : Hindi Reader for class V | Delhi Administration, Bihar, Central Schools, A & N Islands, Arunachal Pradesh for class VIII. |
| 98. Rashtra Bharati Part I Hindi Reader for class VI. | Delhi Administration, A & N Islands, Central Schools, Manipur, Bihar |

99. Rashtra Bharati Part II : Hindi Reader for class VII.
 100. Rashtra Bharati Part III ; Hindi Reader for class VIII.
 101. Kavya Sankalan . A Textbook for Secondary Schools.
 102. Gadya Sankalan . A Textbook for Secondary Schools.
 103. Kavya Bharati.
 104. Gadya Bharati.
 105. Ekanki Sankalan : A Textbook for Secondary Schools.
 106. Kavya Ke Ang : A Textbook for Secondary Schools.
 107. Jeevani Sankalan : A Textbook for Secondary Schools.
 108. Hindi Sahitya Ka Itihas . A Textbook for Secondary Schools
 109. Kahani Sankalan . A Textbook for Secondary Schools.
 110. Kavya Sankalan, Gadya Sankalan (Combined Edition)

SANSKRIT

111. Sanskritodayh A Textbook for Secondary Schools.

Delhi Administration, A & N Islands, Central Schools, Bihar
 Delhi Administration, A & N Islands, Central Schools, Bihar.
 Haryana, Himachal Pradesh, Central Board of Secondary Education,
 A.P , West Bengal, Central Schools.
 Haryana, Himachal Pradesh, Central Board of Secondary Education,
 A P., West Bengal, Central Schools, Punjab University included four
 essays from the book in a book published by them, and Bihar
 Central Schools, Central Board of Secondary Education.

—do—

Central Schools, Central Board of Secondary Education, M.P.;
 Haryana, Himachal Pradesh.
 Madhya Pradesh, Central Board of Secondary Education, Central
 Schools.
 Haryana, Himachal Pradesh.
 Punjab Board.
 Haryana, M.P , Central Board of Secondary Education, Central
 Schools.
 Baroda University

Central Board of Secondary Education, Central Schools, Manipur,
 A & N Islands, Jammu & Kashmir University for P U C,