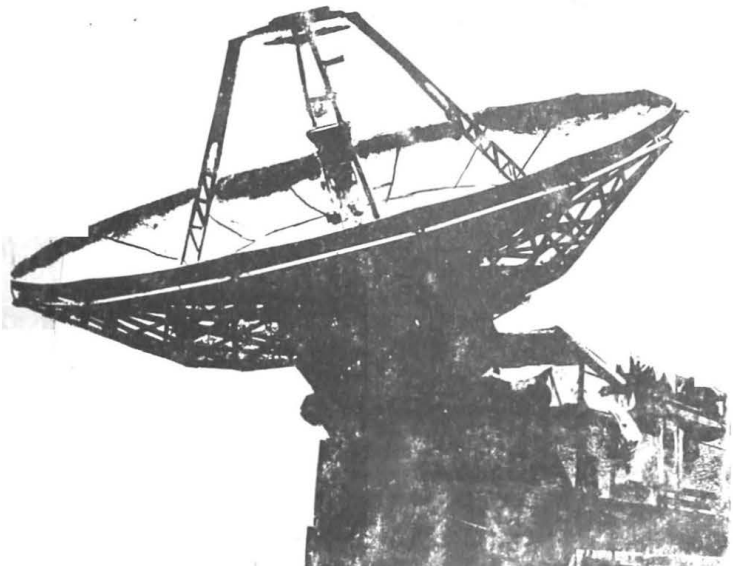




# ANNUAL REPORT 1984-85



# **ANNUAL REPORT**

## **1984-85**



**राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्**  
**National Council of Educational Research and Training**

*December 1985*  
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## **ACKNOWLEDGEMENTS**

**T**HE National Council of Educational Research and Training (NCERT) is indebted to its President, Union Education Minister, Government of India, for his guidance. The Council is grateful to other distinguished members of its Governing Body for their keen interest in the affairs of the Council and help. The Council is thankful to the experts who spared their valuable time to serve on its various committees and extended help in many other ways. Thanks are also due to all organizations and institutions including the State Departments of Education and State Councils/Institutes of Educational Research and Training/State Institutes of Education, who collaborated with the NCERT and extended all cooperation in carrying out its activities. The Council acknowledges with thanks the assistance rendered to it by the UNESCO, the UNICEF, the UNDP and the British Council. The Council also records with appreciation the work done by the members of its staff, at all levels, without whose participation and dedication its programmes could not have been successfully implemented. The Council acknowledges with thanks thousands of teachers, students, parents and members of the public who sent letters to the various constituents of the Council giving their views on its publications and programmes during the year 1984-85, which proved to be a constant source of inspiration for better performance.

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# 1

## NCERT — Role and Structure

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**T**HE National Council of Educational Research and Training (NCERT), established on 1 September 1961, is an autonomous organization registered under the Societies Registration Act (1860).

### **Role and Functions**

The NCERT functions as an academic adviser to the Ministry of Education and Culture. In formulating and implementing its policies and programmes in school education, the Ministry draws upon the expertise of the NCERT to a considerable extent. The Council is fully financed by the Government.

The objectives of the NCERT, as indicated in its Memorandum of Association, are to assist and advise the Ministry of Education and Culture in implementing policies and major programmes in the field of education, particularly school education.

## **Programmes and Activities**

For the realization of the above objectives, the Council undertakes the following programmes and activities:

- Conducts, aids, promotes and coordinates research in all branches of school education;
- organizes pre-service and in-service training, mainly at an advanced level;
- organizes extension services for institutions, organizations and agencies engaged in educational reconstruction;
- develops and experiments with improved educational techniques, practices and innovations;
- collects, compiles, processes and disseminates educational information;
- assists the States and the State-level institutions, organizations and agencies in developing and implementing programmes for qualitative improvement of school education;
- collaborates with international organizations like UNESCO, UNICEF, etc., and with national-level educational institutions of other countries;
- extends facilities for training and study to educational personnel from other countries; and
- serves as the academic secretariat of the National Council of Teacher Education.

### *Research*

Being the apex national body for research in school education, the NCERT has very important functions, viz., to organize and support research and to train personnel in educational research.

The different departments of the NIE, the Regional Colleges of Education and the Central Institute of Educational Technology undertake programmes of research in various fields such as curriculum, instructional materials, child development, educational psychology, universalization of primary education, educational technology, teaching aids, teacher education, etc.

The NCERT supports research by providing financial assistance and academic interaction to individuals and organizations. Assistance is also given to scholars for the publication of Ph.D. theses. The Council also awards junior and senior research fellowships so that educational problems are investigated and a band of competent research workers is created. It also conducts educational surveys from time to time for providing data on the various aspects of education in the country. It has a computer terminal for the storing, retrieval and processing of data. It also collaborates with international agencies in inter-country research projects.



### *Development*

Developmental activities in school education constitute an important function of the Council. Significant among these are the development of curricula and instructional materials at the various levels of school education and relating them to the changing and growing needs of children and society. The development of curricula and instructional materials in the area of non-formal education and vocationalization of education, where not much significant work had been done in the past, are among the innovative developmental activities of the Council. Educational technology and population education are other significant activities in this domain.

### *Training*

Pre-service and in-service training at various levels — pre-primary, elementary and secondary — and also in such areas as vocational education, guidance and special education constitutes another important dimension of the Council's activities. The innovative programmes at the Regional Colleges of Education incorporate some innovative special features such as integration of subject content and methodology of teaching, long-term internship to teacher-trainees in actual classroom setting and participation of students and faculties in community work. Stress is also laid on training key personnel of the States and the State-level institutions. Functioning as the academic secretariat of the National Council of Teacher Education, the NCERT is involved in various activities including revision of the syllabi for teacher education at various levels and the working of the Centres of Continuing Education.

The correspondence courses for untrained teachers of elementary and secondary schools help in removing the backlog of untrained teachers.

### *Extension*

The NCERT has a comprehensive programme of extension in education in which various departments of the NIE, the Regional Colleges of Education and the Offices of the Field Advisers in the States are engaged in various ways. The NCERT works directly with various agencies and institutes in the States and also works extensively with the extension service departments and centres in teacher training colleges and schools with the purpose of providing assistance to various categories of personnel including teachers, inspectors and administrators, paper-setters, textbook-writers, etc. Conferences, seminars, workshops and competitions are organized as regular ongoing programmes. Care is also taken to organize these programmes in rural and backward areas in order to reach the functionaries in

these areas where special problems exist and special efforts are needed. The Council has special programmes for the education of the handicapped and the children from disadvantaged sections of the society. The extension programmes of the NCERT cover all the States and the Union Territories in the country.

#### *Publication and Dissemination*

The NCERT publications cover all branches of school education. These include textbooks for the various school subjects for Classes I-XII, workbooks, teachers' guides, supplementary readers, research reports, etc. The instructional materials produced after research and development work serve as models to the various agencies in the States and the Union Territories and these are available with them for adoption and adaptation. The textbooks are published in English, Hindi and Urdu.

For the dissemination of educational information, the NCERT publishes five journals: (i) *The Primary Teacher*, published both in English and Hindi, aims at giving meaningful and relevant material to primary school teachers for direct use in the classroom, (ii) *The School Science* serves as an open forum for discussion of various aspects of science education, (iii) *The Journal of Indian Education* provides a forum for encouraging original and critical thinking in education through discussion on current educational issues, (iv) *The Indian Educational Review* contains research articles and provides a forum for research workers, and (v) *Adhunik Bhartiya Shiksha*, published in Hindi, provides a forum for encouraging critical thinking in education on contemporary issues and disseminates ideas on educational problems and practices.

A house journal, called *NCERT Newsletter*, is also published every month. In addition, each Regional College of Education publishes its own journal.

#### *Evaluation and Exchange Programmes*

Evaluation of textbooks and other materials is undertaken on a continuous basis. Criteria, tools and techniques of evaluation have been developed. Guidelines and procedures for evaluation have been laid down from the point of view of their quality. The feedback from schools helps in the revision of textbooks.

Every year, the NCERT administers tests in all the languages recognized under the Constitution of India for the award of 750 talent scholarships (including 70 for students belonging to the Scheduled Castes/Tribes). Students who would be appearing at the Class X examination at the end of the session, are considered eligible to compete for the award of scholarships. Awardees may pursue studies

up to Ph.D. in science, mathematics and social sciences or take up professional courses in areas like engineering and medicine.

For its efforts at improving the quality of education, the NCERT receives assistance from international agencies like UNESCO, UNICEF, UNDP and UNFPA. On request from these agencies the Council nominates its faculty members for participation in international conferences, seminars, workshops, symposia, etc. The Council also arranges training for foreign nationals.

The Council also functions as the secretariat of the National Development Group for the Asian Centre for Educational Innovations and Development. It also acts as a major agency for implementing the provisions of bilateral cultural exchange programmes that are signed by the Government of India with different countries as far as school education is concerned. The Council exchanges educational materials with other countries.

### **Structure and Administration**

The General Body is the policy-making body of the Council. The Union Education Minister is its President and Education Ministers of all the States and the Union Territories are among its members. In addition, the Chairman of the University Grants Commission, the Secretary to the Ministry of Education, four Vice-Chancellors of universities (one from each region), all members of the Executive Committee (not included above) and such other persons, not exceeding twelve, as the President may, from time to time, nominate (no fewer than four of these have to be school teachers) are its members.

The main governing body of the NCERT is the Executive Committee which has the Union Education Minister as its President (*ex-officio*) and consists of the Minister of State in the Ministry of Education (as *ex-officio* Vice-President), the Deputy Minister in the Ministry of Education, the Secretary to the Ministry of Education, the Director of the Council, the Chairman of the University Grants Commission, four educationists with known interests in school education (two of whom shall be school teachers), the Joint Director of the Council, three members of the faculty of the Council (of whom at least two shall be at the level of Professors and Heads of the Departments), one representative of the Ministry of Education, and one representative of the Ministry of Finance (who shall be the Financial Adviser of the Council).

The Executive Committee is assisted in its work by the following standing committees:

1. Programme Advisory Committee.
2. Finance Committee.
3. Establishment Committee.

4. Building and Works Committee.
5. Educational Research and Innovations Committee.
6. Managing Committees of Regional Colleges of Education.

The Council's headquarters consists of:

1. The Council's Secretariat and
2. Accounts Branch

The four senior functionaries of the NCERT appointed by the Government are the Director, the Joint Director, the Joint Director, CIET, and the Secretary. During the year under report the following officers occupied these positions:

Dr. P.L. Malhotra, Director.

Dr. T.N. Dhar, Joint Director up to 28 June 1984.

Dr. A.K. Jalaluddin, Joint Director from 14 August 1984.

Dr. M.M. Choudhry, Joint Director, CIET, from 28 May 1984.

Shri C. Ramachandran, IAS, Secretary.

The Director is also assisted in the academic functions by three deans whose names, designations and responsibilities are given below. The present incumbents were appointed for a period of two years from 16 January 1984.

<i>Name and Designation</i>	<i>Responsibilities</i>
Prof. B.S. Parakh Dean (Academic)	To coordinate the academic work in the departments of NIE
Prof. Atmanand Sharma Dean (Research)	To coordinate the research programmes and to look after the work of Educational Research and Innovations Committee
Prof. G.S. Shrikantia Dean (Coordination)	To coordinate the activities of Services/ Production Departments, Field Offices and the Regional Colleges of Education.

During 1984-85 the Council was running:

The National Institute of Education (NIE)

Central Institute of Educational Technology (CIET)

Regional Colleges of Education (4)

Field Units (17)

#### *National Institute of Education*

The Departments/Units of NIE were reorganized in May 1984 and during 1984-85 the National Institute of Education, New Delhi, had the following departments/units concerned with research, development, training, extension, evaluation and dissemination in their specific areas:

1. Department of Education in Social Sciences and Humanities (DESSH)
2. Department of Field Services and Coordination (DFSC)

3. Department of Teacher Education and Special Education and Extension Services (DTESEES)
4. Department of Pre-school and Elementary Education (DPSEE)
5. Department of Educational Psychology, Counselling and Guidance (DEPC&G)
6. Department of Education in Science and Mathematics (DESM)
7. Department of Measurement, Evaluation, Survey and Data Processing (DMES&DP)
8. Department of Vocationalization of Education (DVE)
9. Department of Policy, Research, Planning and Programming (DPRP&P)
10. Publication Department (PD)
11. Workshop Department (WD)
12. Department of Library Documentation and Information (DLDI)
13. Journals Cell (JC)
14. International Relations Unit (IRU)

The Central Institute of Educational Technology (CIET) was set up in 1984 by the merger of the erstwhile Centre for Educational Technology and the Department of Teaching Aids of the NCERT to give a boost to the promotion of educational technology for the improvement and spread of education in the country.

The CIET, headed by a Joint Director, functions as one of the constituent units of the NCERT with a good measure of autonomy. An Advisory Council would guide the institute about its programmes and activities.

The CIET has the following major divisions:

1. Educational Technology and Training Division, TV Division and Distance Education Division (ETTD)
2. Research, Education and Coordination Division (RECD)
3. Technical Planning, Operation and Maintenance Division (TPOMD)
4. Graphics, Exhibition and Printing Division (GEPD)
5. Archives, Information and Documentation Division (AIDD)
6. Films and Photo Division (FPD)
7. Audio-Radio Division (ARD)

### *Regional Colleges and Field Units*

The Regional Colleges of Education are located in Ajmer, Bhopal, Bhubaneswar and Mysore.

These Colleges provide the following courses:

B.A. (Hons) B.Ed.

B.Sc. (Hons)/(Pass) B.Ed.  
 B.Ed. Arts (Elementary/Secondary Education).  
 B.Ed. Science (Elementary/Secondary Education).  
 B.Ed. (Agriculture/Commerce/Social Science).  
 B.Ed. (English/Hindi/Urdu).  
 B.Ed. (Summer School-cum-Correspondence Course).  
 M.Ed. (Elementary/Secondary Education).  
 M.Sc.Ed. (Physics/Chemistry/Mathematics/Life Sciences).  
 Ph.D. (Education).

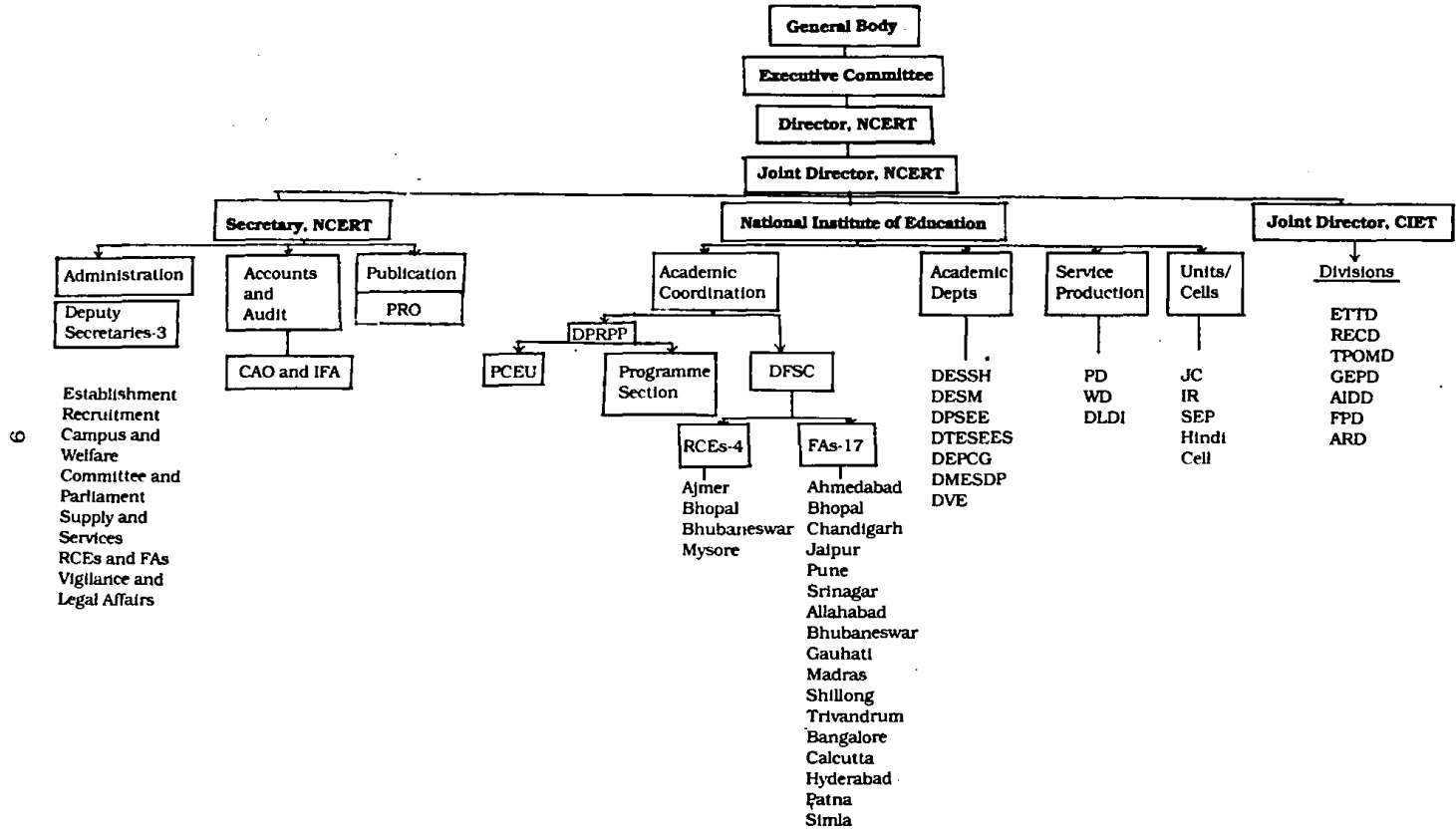
While the College at Ajmer offers only four-year B.Sc. B.Ed. courses, the Colleges at Bhubaneswar and Mysore also offer M.Sc.Ed. programmes, the former in Life Sciences and the latter in Physics, Chemistry and Mathematics. There is provision for Ph.D. programmes as well as one-year B.Ed. and M.Ed. courses in all the four colleges.

The Colleges are residential institutions with adequate laboratory, library and other facilities. Each College has a Demonstration Multipurpose School attached to it where methodologies developed are tested in actual classroom situations.

Seventeen Field Offices have been established at the following places to provide effective liaison with the State Education authorities and with the State-level institutions set up for providing academic and training inputs to the school system:

Ahmedabad	Allahabad	Bangalore
Bhopal	Bhubaneswar	Calcutta
Chandigarh	Gauhati	Hyderabad
Jaipur	Madras	Patna
Pune	Shillong	Simla
Srinagar	Trivandrum	

## Organizational Structure of the NCERT



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## 2

### An Overview of the Activities During 1984-85

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**R**ESearch and development activities related to formulation and implementation of curricula at different stages of school education and teacher education; preparation/revision of syllabi and textual and other instructional materials; development of teaching aids, science kits, educational films, instructional television and radio programmes; the training of teachers, teacher-educators and supervisory personnel in the States/the Union Territories and organization of extension and dissemination activities in collaboration with State/UT level agencies and institutions constituted some of the major activities of the Council during the period 1984-85. These activities centred round some of the priority areas of educational development in the country such as universalization of elementary education, qualitative improvement of school education and teacher education programmes, vocationalization of higher secondary education, value orientation in education, examination reform, utilization of educational media and development of innovative instructional strategies.



The Council has also been engaged in the implementation of certain special projects and has been acting as the central technical and monitoring agency for the implementation of the UNICEF-assisted projects in the education sector, National Population Education Project and the Computer Literacy and School Studies (CLASS) Project being implemented in different States/UTs. The Council maintained a close liaison with all the State/UT governments through its wide network of offices of the Field Advisers and the Regional Colleges of Education by fully collaborating in the programmes organized by the Departments of Education in the States/UTs.

### **Elementary Education**

The Council undertook several activities under the different UNICEF-assisted projects implemented in the context of the programmes of universalization of education. Activities related to the development of inexpensive media of educational and entertainment value for children in the age group 3-8 continued under the project Children's Media Laboratory (CML). Under the Early Childhood Education (ECE) project, eight States were assisted in setting up and strengthening Early Childhood Education Units, training teacher educators and pre-school teachers and developing learning and play materials for early childhood education. Renewal of primary education curriculum, development of instructional materials and the training of teachers and teacher-educators and other personnel involved in the implementation of the renewed curriculum continued under the project Primary Education Curriculum Renewal (PECR). Comprehensive packages of instructional materials for primary school children, teachers and out-of-school girls and women were developed under the project Nutrition, Health Education and Environmental Sanitation (NHEES).

Development of non-formal approaches to education of out-of-school children constituted an important activity of the Council. Under the project Comprehensive Access to Primary Education (CAPE), activities related to the development of flexible, problem-centred and work-based curriculum and learning materials (learning episodes) for education of out-of-school children continued while different patterns of non-formal education programmes relevant to the needs of different groups such as children in the age group 3-6 and 6-14, girls and women and youth in the age group 15-35 were evolved under the project Developmental Activities in Community Education and Participation (DACEP).

The Council also undertook several activities to support the centrally sponsored non-formal education programme for the out-of-school children. The main thrust of the activities has been on the

development of instructional materials and appropriate teaching-learning strategies suited to the non-formal education programmes. The Council also convened a meeting of in-charges of non-formal education programme in the States to review the scheme and to make necessary changes in the programme in the light of the experience gained and organized orientation courses for personnel involved in the implementation of the NFE programme.

With a view to identifying the issues and problems related to universalization of elementary education and to identify areas of research, a five-day national seminar was organized. The report of the seminar was widely circulated among researchers who could undertake need-based research projects related to UEE.

### **Curriculum Development**

The Council undertook several studies related to different aspects of development and implementation of curriculum. Prominent among the studies which were completed during the year were "A Study of Major Developments in Elementary School Curriculum in India" undertaken as part of the "Study of Elementary School Curriculum in Asian and Pacific Countries" sponsored by the National Institute of Educational Research (NIER), Japan; "Study of Curriculum Load at the School Level", and "A Status Study on the School Curriculum in India".

Development/revision of textbooks, supplementary readers and other instructional materials for use at the secondary and higher secondary stages formed an important function of the Council. Some of these were produced in close collaboration with the Central Board of Secondary Education (CBSE). Prominent among the textbooks/supplementary readers finalized for publication during 1984-85 include one English Reader and one English Supplementary Reader for Class XI Core Course, three Hindi textbooks for Class XI Core Course, three Hindi textbooks for Class XI Elective Course, textbooks in Urdu for Classes I, III and XI, revised version of the textbook in Civics for Classes IX and X, textbook in Geography for Class XI, textbook in Economics for Classes IX and X, Sanskrit textbook for Class XI, Physics — Part I textbook for Class IX, textbook in Chemistry for Class IX, the Basic Biology textbook for Class IX and Mathematics textbook for Class IX.

Development of curriculum and instructional materials for the promotion of value orientation in education constituted an important area of work in the Council Curriculum for moral education in Classes I to XII was finalised. Two books related to value education were finalised for publication.

Activities related to preparation of reading material under the project Reading to Learn continued. The objective of the project is to

bring out graded reading material for children. A workshop of writers in Hindi was organized to finalise the manuscripts of materials in Hindi. The third meeting of the Steering Committee for English was held during the year and manuscripts of seven publications were reviewed at the meeting. Four titles for the age group 5 to 9 were finalised for publication.

Under the project, India's Struggle for Independence through Visuals and Documents, visual panels with brief write-ups and documentation depicting the events related to India's freedom struggle were finalised for publication. The visual panels are designed to promote an awareness of India's freedom struggle among the younger generation.

In order to acquaint the young generation of India with the writings of eminent thinkers, philosophers, scientists, social reformers and national leaders, the Council had launched an Anthology series with the release of the first volume titled *Science and Man* in February 1984. The second volume under the series, titled *Nehru — an Anthology for Young Readers*, based on the original writings of Jawaharlal Nehru was released in November 1984 by Prime Minister Shri Rajiv Gandhi. The book was edited by the Director, NCERT.

The NCERT continued its activities related to the evaluation of school textbooks from the standpoint of national integration. As part of the work under this project, books in languages and history were scrutinized and work related to the scrutiny of books in civics, geography and sociology was initiated. Guidelines and criteria for evaluation of the books were prepared.

### **Educational Evaluation**

In order to improve examinations at different stages of school education, the Council undertook development of conceptual material related to educational evaluation and preparation of item banks and tests in different subject areas. The materials developed include Handbooks on Evaluation in Biology, Economics and Geography, Unit Tests based on English A Course in Class X, Unit Tests on English Readers in Classes XI and XII and question bank in Economics.

The Council conducted 11 courses/workshops for training item writers in different subject areas and paper-setters of examinations conducted by different Boards of Secondary Education. In addition to these, two workshops for training the State-level personnel in the preparation of items for the General Mental Ability Test and 15 courses for training item writers for Scholastic Aptitude Test in connection with the organization of the National Talent Search Examination were conducted. The total number of students who appeared at the NTS examination rose to 1,03,161 — 47,450 for

Class X, 33,313 for Class XI and 22,398 for Class XII — in 1984-85. 1,415 students — 702 for Class X, 282 for Class XI and 431 for Class XII — were called for interview and of these, 750 students — 350 for Class X, 150 for Class XI and 225 for Class XII — were selected for the award of the scholarship. These included 75 SC/ST students — 35 in Class X, 19 in Class XI and 21 in Class XII.

### **Educational Survey**

The Council has been actively engaged in improving the data base for the formulation of educational policy and the planning of programmes. During the year, "The Secondary Analysis of Fourth All India Educational Survey Data on a Sample Basis" was completed in respect of seven States and three Union Territories. The analysis provided data in respect of availability of physical facilities such as buildings, classrooms, availability of libraries, book banks, blackboards, facilities for sports and games, etc. in primary, middle, secondary and higher secondary schools. The study of Backwardness of Girls Education was also completed during the year.

### **Vocationalization**

Vocationalization of higher secondary education has been one of the priority areas of the Council. It continued to assist the States in planning and implementing various programmes related to the vocationalization of education. Five teacher training programmes were organised and through these 120 teachers were trained in selected trades and vocations. Competency-based curricula and instructional materials related to 18 vocations were developed during the year. A National Seminar on Vocationalization of Education was also organised to identify issues and problems related to vocationalization and to identify appropriate strategies for its effective implementation. A study was undertaken to find out what the students were doing after completing Class XII in the vocation stream.

### **Teacher Education**

Teacher education, both at the elementary and secondary stages, was another area which continued to receive the attention of the Council. Research studies carried out during the year included "A Study of Relationship of Self-concept Attitude, and Adjustment with Achievement of SC/ST and non-SC/ST Student Teachers" and "A Comparative Study of Teacher Profiles in Rural and Urban Setting in Elementary School System". Activities related to the Third National Survey of Elementary Education Institutions and the Fourth National Survey of Teacher Education continued during the year. The Council assisted several States and universities in the revision of secondary teacher education curriculum on the basis of the recommendations

of the National Council of Teacher Education. For the use of elementary teacher trainees and teacher educators, the Council brought out the book titled *Teacher and Education in the Emerging Indian Society*. In order to improve the professional competence of in-service teachers, training programmes related to the content and methodology of instruction were carried out through 79 centres of continuing education set up in various States and Union Territories. Activities related to the development of instructional materials for integrated education for the disabled, the training of personnel for implementing integrated education, the training programmes in the area of tribal education and women's education constituted other important activities in the field of teacher education.

The Council undertook several programmes for training teachers and teacher-educators. These included courses designed to orient teachers and teacher-educators to innovative practices adopted in teaching science and mathematics, social sciences and humanities. In addition to this, training activities related to counselling and guidance, identification and development of talent, behavioural technology, and research methodology were also carried out.

The four Regional Colleges of Education run by the Council continued to offer pre-service teacher education programmes. The courses offered included one-year B.Ed. course, four-year integrated teacher education programme and two-year M.Ed. course. In addition to these, two colleges also offered M.Sc.Ed. courses. The Regional Colleges also undertook in-service training of teachers on demand from the States/UTs under their jurisdiction.

### **Educational Technology**

Activities related to the development of an integrated programme of educational technology including the use of mass media such as radio and television for bringing about qualitative improvement of education and widening access to education to people living in remote areas were continued by the Central Institute of Educational Technology and Educational Technology Cells in the States. The CIET undertook programmes for the development of TV curriculum, the training of script-writers and other media personnel concerned with production of educational television and radio programmes. Production of television programmes for transmission in the States covered by the INSAT-1B was also undertaken. Another major activity carried out was organisation of a five-week training course in integrated TV production for various categories of personnel. This programme was organised in collaboration with Asia and Pacific Institute for Broadcasting Development, Kuala Lumpur, and UNICEF. Audience profile studies in Uttar Pradesh and need assessment study of ETV programmes in Orissa were other activities carried out.

## **Population Education**

The National Population Education Project gained further momentum during the year. Under the project, about 8,000 key personnel and about 2,15,000 teachers in different States and Union Territories were trained in different aspects related to the implementation of the project. Development of evaluation tools and studies to assess the impact of population education were other activities carried out during the year. A significant event during the year was an on-the-spot painting competition organized both at the State and the national levels. The theme of the competition was the Population Situation as I Perceive Now and 20 Years Hence. More than 3,000 entries, including 240 award-winning entries at the State level were received for the national-level competition. A multi-colour album of selected paintings from all over the country was published. On the basis of this album, an audio-visual kit in English and Hindi was also prepared.

## **Computer Literacy**

Under the project Computer Literacy and Studies in Schools (CLASS) 42 resource centres were set up during the year. The project was introduced in 250 schools all over the country. A series of training programmes on different aspects of computer education were organised. In addition to this, a number of meetings of experts, planners and coordinators of the resource centres were organized to work out the strategy for the implementation of CLASS project.

## **Community Singing**

As part of the efforts to institutionalize community singing in the school system to promote national integration, the Council, in collaboration with various agencies and institutions at the State level, organised 26 camps for training teachers in the art and techniques of community singing. 1, 502 teachers from 15 States and Union Territories were trained, through these camps, in order to ensure high standards, uniform time and rhythm in singing and right pronunciation of songs in 15 regional languages. Every teacher who participated in the camps was provided with a tape recorder and audio tapes for use in their schools so that children could be trained to sing songs collectively in different languages. A multi-colour book containing these songs in respective language scripts and in Roman and Devnagri scripts together with the musical notations was published for wider distribution to schools.

## **Educational Research**

Through its Educational Research and Innovations Committee

(ERIC), the Council has been actively engaged in identifying priority areas of research and conducting and sponsoring need-based research projects related to different aspects of school education. During 1984-85, eight studies were completed. The studies completed were related to diagnostic and remedial teaching, construction of a battery of psychological tests and achievement norms, special problems of the socially disadvantaged, case studies of Scheduled Castes and Scheduled Tribes who had failed in examinations, learning disabilities of the rural children and vocationalization of education. In order to create a pool of competent researchers in the country, the Council organized a training course in research methodology. The Council also continued its activities related to the National Test Development Library. Four bulletins indicating reviews of various new psychological tests were brought out during the year. A national seminar on psychometric principles and techniques of test construction was also organized.

### **International Relations**

The NCERT continued to act as a major agency for implementing the provisions of bilateral cultural exchange programmes that are signed by the Government of India with other countries in the field of school education. It undertook several UNESCO/APEID and UNDP sponsored projects/programmes. Several delegations and experts from different countries visited the NCERT during the year. The Council continued to work as an associated centre of Asian Programme of Educational Innovation for Development (APEID) and as the Secretariat of National Development Group (NDG) for educational innovations. As part of the activities of the NDG, a newsletter covering details of several innovative projects implemented in the country and abroad was introduced.

The details of activities/programmes carried out during 1984-85 by different departments of the National Institute of Education (NIE) and other constituent units of the NCERT are reported in the subsequent chapters.

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# 3

## Pre-School and Elementary Education

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**T**HE main task of the Department of Pre-School and Elementary Education (DPSEE) has been the development and implementation of projects/programmes in the context of the programme of universalisation of elementary education. The Department was engaged in several activities related to early childhood education, non-formal education programmes, community education, renewal of primary education curriculum and nutrition and health education. The Department has also been acting as the central, technical and coordinating agency for the implementation of all the UNICEF-assisted projects in the education sector implemented in different States and Union Territories.

### **Early Childhood Education**

Development of curriculum and instructional materials for early childhood education, development of instructional materials for the use of pre-school teachers and teacher educators and training of pre-school teachers, teacher educators and supervisory personnel involved in the implementation of early childhood education pro-



grammes have been some of the major activities of the Department. These were carried out under the following specific projects and programmes.

#### *Children's Media Laboratory (CML)*

Under the UNICEF-assisted project, Children's Media Laboratory (CML), attempts were made to develop inexpensive media of educational and entertainment values for children of pre-school and early primary stages, to develop at the State/UT level expertise in the use of traditional toys and educational games for early childhood education and to build a national-level resource centre for disseminating ideas, training and learning material, research findings and training methodology on early childhood education and teacher education.

Under the CML, play material, picture books, graphic material, audio programmes, video programmes for early childhood education as well as for pre-school teachers and teacher-educators were developed. The print material developed includes a set of five booklets for the development of sense perception, three sets of thematic picture cards and conversation charts on ten themes. Five audio tapes on themes related to the environmental experiences of children and one video programme highlighting pre-school activities for the use of pre-school teachers were also developed.

The CML was also involved in monitoring and evaluating radio programmes broadcast for young children by some of the stations of All India Radio. Other activities carried out include survey of indigenous and locally available toys and educational games in Sikkim, Andaman and Nicobar Islands and Pondicherry and preparation of manuals of these toys and games.

The material developed under the CML has been tried out in tribal and rural and urban areas. They are being fed into the existing projects/programmes such as Integrated Child Development Services (ICDS) and other rural development programmes which cater to the needs of children of pre-school and early primary school age groups.

#### *Early Childhood Education (ECE) Project*

A number of States and Union Territories have developed programmes of early childhood education as a component of social welfare or educational programmes. However, there has been lack of appropriate instructional material and trained manpower to effectively implement these programmes. There has, therefore, been a growing need for programmes to develop capacity at the State-level to train pre-school teachers and teacher-educators for carrying out early childhood education programmes. The UNICEF-assisted project,

Early Childhood Education (ECE), being implemented by the Department, is an attempt to fulfil this need.

Under this project, the States have been assisted in setting up or strengthening early childhood education units, in training pre-school teachers and teacher-educators, in orienting supervisory personnel to the different aspects of early childhood education and in developing learning and play material for children. The project was implemented in Bihar, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh. The SCERT/SIE, five teacher training institutes and 65 early childhood education centres in each participating State are involved in the implementation of the project.

The major activities carried out under the project include the training of teachers and headmasters of the early childhood education centres, orientation of supervisory personnel involved in the implementation of early childhood education programmes, refresher courses for teachers of ECE Centres on the principles and methodology of early childhood education, and development of learning material for the use of children and training materials for the use of pre-school teachers and teacher-educators involved in the implementation of the project.

#### *Early Childhood Education Project in Nursery Schools of Municipal Corporation of Delhi*

The Department has been engaged in the implementation of early childhood education programme in some of the schools consisting of nursery sections run by the Municipal Corporation of Delhi. The programme was implemented in ten schools. Under this programme, 22 headmasters/headmistresses and supervisors of the nursery schools were oriented to the different aspects of early childhood education.

Twenty-one nursery school teachers who participated in a one-month course were trained on the different aspects/approaches to and strategies of early childhood education. Other activities carried out include an orientation course for the planners and administrators of the Municipal Corporation of Delhi and Delhi Administration and a six-day orientation course for the helpers of the nursery schools participating in the programme.

#### *National-level Workshop on Toy-making*

In order to develop awareness amongst teachers about the importance of toys and educational games and play-way method of instruction at the pre-school and early primary stages, a five-day National

Level Workshop on toy-making was conducted. The themes of this workshop were Musical Toys and Science Toys, and toys were developed during the workshop by using low cost and locally available materials. The participants of the workshop included 14 first prize winners of the State-level toy-making competition organised by the Department in collaboration with the Field Offices.

### **Non-Formal Education Programmes**

Research and development activities related to non-formal and community education programmes, and training/orientation of personnel involved in the implementation of non-formal education programmes formed an important area of work of the Department. The major activities carried out include the following.

#### *Support to Centrally Sponsored Non-formal Education Programme Implemented by the Government of India*

The Department has been engaged in developing suitable curricula and instructional materials for the use of children enrolled in non-formal education centres established under the Centrally sponsored non-formal education programme being implemented in different States and Union Territories. Syllabi and instructional materials for the middle-level non-formal education centres were developed.

The instructional materials have been developed following an integrated approach covering areas like Science, Social Sciences and Mathematics. Three books in natural sciences, three in social science, three in language and one in mathematics were finalized for publication. Another important activity has been the development of instructional materials in Urdu for the use of learners enrolled in primary-level non-formal education centres. A set of books for the first six months have already been published, and the work on the preparation of books in Urdu for learners at the levels of Classes III and IV of the formal school was initiated. In addition to these, certain conceptual material on non-formal education has also been developed. Seventeen small brochures on different aspects of non-formal education programme have been developed.

Two research projects — the Development of Tools for Evaluation of NFE Instructional Materials and Identification of Various Approaches and Practices of NFE — were completed during 1984-85. Under the first project tools for the evaluation of instructional material used in non-formal education centres were developed and tried out. A survey of the syllabi and instructional material for non-formal education prepared by different agencies was also conducted. The study was, however, limited to only Hindi-speaking States. Under the second project efforts were made to identify approaches/practices

followed in (a) Community Centres; (b) Centres run by voluntary agencies and (c) non-formal education centres run by the State governments.

The work on the production of a film on non-formal education for use in training and orientation programmes for personnel engaged in the implementation of non-formal education programme was initiated during the year. The script of the film which is being produced in collaboration with CIET, was finalized. The production of the film is expected to be completed during 1985-86.

Other activities carried out include Annual Conference of In-charges of non-formal education programmes in the States, and orientation of resource persons working in the area of NFE to different aspects of the implementation of the programme. Nineteen persons from different States participated in the five-day Orientation Course. During the course detailed discussion was held on the experience gained in the implementation of the NFE programme, methodology of instruction adopted in NFE Centres, and methodology of training adopted for training block-level NFE functionaries and district-level NFE Officers.

#### *Comprehensive Access to Primary Education (CAPE)*

An attempt to develop a target group oriented non-formal education programme which is decentralized in regard to curriculum, instructional/learning materials, pattern of instruction and evaluation, is made under the UNICEF-assisted project Comprehensive Access to Primary Education (CAPE). Under the project, locally relevant learning materials (learning episodes) are being developed in sufficient quantity and variety. The learning episodes are developed through the introduction of a training-cum-production mode into the curriculum of elementary teacher training institutions and/or into the in-service teacher training courses for teachers. The learning episodes, after processing and refinement, are expected to be used in a network of experimental learning centres to be established/adopted by the State/UT Governments. Thereafter, the evaluation centres and accreditation services will be established so as to enable the children attending the learning centres to receive credit/certificate for their academic achievements.

During 1984-85, the project was implemented in 21 States and five Union Territories. In all the States/UTs the activities related to the first phase of the project which involved development of relevance-based learning materials, were undertaken. The major activities carried out under the project during 1984-85 include the screening and selection of draft learning episodes developed by teacher-trainees and

teachers, the processing of draft learning episodes, production/publication of learning episodes and development of curricula based on the learning episodes developed. About 300 draft Modules were processed for publication and about 60 Modules were published in different States/UTs participating in the project. In addition to these, 11 Modules in Hindi for the use of beginners were also developed by the Department at the central level.

In four States, preparation for the commencement of the second phase of the project which involves establishment/adoption and running of learning centres, was initiated during the year. The State of Tamil Nadu commenced the second phase of the project by establishing 73 learning centres. The States of Bihar, Orissa and Uttar Pradesh are expected to commence the second phase of the project by September 1986.

#### *Developmental Activities in Community Education and Participation (DACEP)*

Activities related to the development and testing of new types of educational activities to meet the minimum educational needs of groups that are currently deprived, partially or totally, of access to any form of education, were carried out under the UNICEF-assisted project Developmental Activities in Community Education and Participation (DACEP).

During the year 1984-85, 107 community centres functioned under the project. The project was implemented in all the States and Union Territories except Arunachal Pradesh and Lakshadweep. Each centre had, on an average, 80 learners, consisting of about 20 for the age group 3 to 6 years, 20 for the age group 6 to 14 years and 40 for the age group 15 to 35 years. Besides regular enrolment, there were also casual learners at each centre who used to attend specific programmes according to their convenience.

Under the project DACEP different patterns of non-formal education programmes for different age groups covered under the project were developed in the States/UTs participating in the project. Instructional materials for the use of learners in the age group 3 to 6, 6 to 14 and 15 to 35 years were developed to meet the educational needs of the community around which the learning centres were located. Some of the centres have brought out instructional materials for mothers, which mainly focus on imparting information on various health needs of the child and mother. Attempts have been made to use those materials as a base for promoting literacy and numeracy among mothers.

The materials prepared for children in the age group 3 to 6 years are also directed to educate parents on different aspects of promoting

school readiness among children even when facilities for pre-school education are not available. The materials for the age group 6 to 14 were prepared to enable children to achieve specific levels of achievement to get entry into the formal schools and to promote functional literacy. The materials for the age group 15 to 35 were mainly directed to promote participation of the community in developmental and productive activities as a base for promoting literacy and numeracy competence.

Some of the instructional materials developed for the age group 6 to 14 and 15 to 35 have been adopted by some of the States for wider use in the non-formal education centres. For instance, the book *Him Kiran* —Part I, prepared for the age group 6 to 14 years in Himachal Pradesh was accepted for wider use in the non-formal education centres. In Rajasthan, the book *Gyan Dipika* was accepted for use in non-formal education centres. The book titled *Asha Bharti* — Part I has been considered for use in non-formal education centres in Uttar Pradesh. In some other States, the instructional materials developed under the project have been reviewed for wider use.

During the year 1984-85, three meetings of project personnel were organized to take stock of the progress of work done under the project. These meetings were attended by 94 participants including community workers. In addition to these, three orientation courses for Block Development Officers, Headmasters of primary schools and Project Coordinators at the State level were organized. These courses were attended by 49 participants.

Instructional materials prepared by nine States were scrutinized for finalization and publication. During the year, the internal evaluation of the project was completed in almost all the States. The external evaluation of the project by the A.N. Sinha Institute of Social Studies, Patna, was initiated during the year. The report of the evaluation study is expected to be available by the middle of 1985.

### **Renewal of Primary Education**

Development and renewal of curricula and instructional materials for improving the relevance and quality of formal schooling formed an important aspect of the activities of the Department during the year 1984-85. In addition to these, support activities such as development of materials in nutrition, health education and environmental sanitation were also undertaken.

#### *Primary Education Curriculum Renewal (PECR)*

The renewal of primary education curricula and instructional materials to relate them to the needs of different groups of children, especially those from the disadvantaged sections of the society, and to

the social and economic opportunities likely to be available to them, was carried out under the UNICEF-assisted project Primary Education Curriculum Renewal (PECR). The project was implemented in all the States and Union Territories except Arunachal Pradesh. One hundred and eighty elementary teacher training institutes, 2,480 primary schools, 11,000 teachers and 4,00,000 pupils were involved in the implementation of the project.

The pace of implementation of the project is not uniform in all the States since the date of commencement of the project varies from State to State. In a majority of the States, the cycle of renewal of curriculum and its implementation at the entire primary school stage will be completed by the end of 1986. Some States have introduced new instructional materials up to Class IV, some up to Class III and the remaining up to Class II.

A phased programme for the development and try-out of new curricula and instructional materials for project schools and strategies for wider adoption of the concepts evolved and techniques developed under the project into the education system of the States/UTs were drawn up. A number of States initiated steps for wider infusion of the curriculum and instructional materials developed under the project into the State educational system.

As a result of the implementation of the project, small States/UTs, like Sikkim, Andaman and Nicobar Islands, Goa, Daman and Diu, Lakshadweep and Pondicherry, have started developing, for the first time, their own curricula and instructional materials for primary school children. Maharashtra, Orissa and Tamil Nadu have adopted some of the instructional materials prepared under the project. All the textual materials prepared under the project have been accepted and published by the Himachal Pradesh Government for use in all the primary schools of the State. In Rajasthan, the curriculum developed under the project PECR has been accepted by the Government and the textbooks prepared under the project are being introduced into the State system in a phased manner. Some of the instructional materials developed under the project have been reviewed by a Committee set up by the Government of Uttar Pradesh for wider use in the primary schools of the State.

During the period of experimentation a large number of teacher-educators, teachers and educational administrators were trained on different aspects of the methodology of development and implementation of curriculum and instructional materials. During 1984-85, about 130 training programmes covering 4500 teachers, 270 supervisory personnel and 450 teacher-educators of the TTIs were organized. About 200 workshops were held in different States/UTs for

development of instructional materials and over 300 instructional materials in the form of textbooks, workbooks and teachers' guides were developed.

In order to collect comprehensive data about the impact of the project PECR in terms of quality of the pupil's learning and its impact on enrolment and retention, "A Study of Enrolment, Retention, Stagnation and Pupil's Achievement" was initiated during the year 1984-85. The study covered all children studying in Classes I to IV. A comparative study of achievement of students of the project schools and the children in the nearby non-project schools was undertaken. During the year 1984-85, data were collected from all the States/UTs in which the academic session commenced in June/July 1984. The collection of data was initiated in February 1985 in the States/UTs where the academic session commenced in February. The study covers 4,00,000 students in 2,480 schools in 30 States and Union Territories.

#### *Nutrition, Health Education and Environmental Sanitation (NHEES)*

Under the project, Nutrition, Health Education and Environmental Sanitation (NHEES), packages of instructional materials on nutrition, health education and environmental sanitation for primary school children, for teachers and for out-of-school girls and women were developed. During the year 1984-85, the project was implemented in 12 States and one Union Territory. The major activities carried out include the following:

1. Development and printing of instructional materials for the use of children in project schools. The materials include textbooks/supplementary readers, teachers' guides training manuals, etc. Twenty-eight titles were brought out during 1984-85.
2. Development of charts/posters, booklets, folders, etc., for community contact programmes as well as for use in the project schools.
3. Orientation course for teachers of the project schools; 1960 teachers were trained during 1984-85.
4. Orientation course for teacher-educators and supervisors.
5. Workshop for the development of evaluation tools.
6. Try-out of the instructional materials in the project schools and revision of instructional materials based on try-out data.
7. Organization of community contact programmes for dissemination of messages related to nutrition, health education and environmental sanitation to the community.

Development of instructional materials for Classes I to IV/V was completed by Andhra Pradesh, Karnataka, Maharashtra, Orissa,



Rajasthan and Mizoram. Actions for integrating the concepts related to nutrition, health education and environmental sanitation into the textbooks/instructional materials followed in primary schools were initiated in Maharashtra, Orissa and Uttar Pradesh.

The project NHEES has attempted to provide a more intensive focus and a more purposeful direction to nutrition, health education and environmental sanitation components in the primary education system. The evaluation of the project conducted by the Nutrition Foundation of India indicated that the project had been successful to a considerable extent in strengthening nutrition, health education and environmental sanitation in rural schools and also in communicating relevant messages to the community through the community contact programmes. The evaluation report had suggested integration of the syllabus/textual materials developed under the project into the existing curriculum of the primary stage and integration of the concepts evolved and techniques developed under the project into the syllabus/curriculum of elementary teacher training institutes. Actions for these have been initiated in all the States and Union Territories participating in the project.

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## Education in Social Sciences and Humanities

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**R**ESearch and experimental studies related to formulation and implementation of curriculum at the school stage, development of syllabi, textbooks and other instructional materials in different subject areas related to social sciences and humanities, the training of teacher-educators, teachers and other personnel engaged in the implementation of curriculum at the school stage and organization of extension and dissemination activities in collaboration with State/ Union Territory level agencies and institutions have been some of the major activities of the Department of Education in Social Sciences and Humanities (DESSH). The Department has also been engaged in the implementation of certain special projects and has been acting as the central technical, coordinating and monitoring agency for the implementation of the National Population Education Project.

### **Studies related to Development and Implementation of Curriculum**

The Department undertook research studies related to different aspects of development of curriculum and its implementation. Promi-

ment among the studies which were completed during 1984-85 are as follows:

*Study of Major Developments in Elementary School Curriculum in India*

As part of the "Study of Elementary School Curriculum in Asia and the Pacific Countries", sponsored by the National Institute of Educational Research (NIER), Japan, the Department prepared a status paper on Major Developments in Elementary School Curriculum in India.

A three-day workshop was organized from 21-23 November 1984 to review the major trends and common concerns in elementary school curriculum and to make a detailed study of some of these major trends. During the workshop discussions were held on the evaluation of elementary school curriculum in India, as well as on different aspects of curriculum such as integrated curriculum, value-orientation and moral instruction, work-oriented education and curriculum load. The final report prepared on the basis of the deliberations at the workshop was presented at the regional workshop organised by the NIER, Japan, and held at Tokyo from 16 January to 7 February 1985.

*Study of Curriculum Load at the School Level*

The NCERT had set up an In-house Working Group in 1983 to make a quick appraisal of the present curriculum at the school level from the point of view of load. In order to identify and study the various dimensions of the curriculum load, the working group had held a series of discussions, with a large number of heads of schools, supervisors and educational administrators. A survey regarding assessment of the curriculum load was conducted in selected primary and secondary schools in Delhi. A workshop was organized to analyse the textual materials which were used in the schools in Delhi. Later on, the scope of the investigation was extended to four more States, namely, Karnataka, Madhya Pradesh, Orissa and Rajasthan. Four Regional workshops were conducted at Mysore, Bhopal, Bhubaneswar and Ajmer from 1-5 September 1984 during which the textual materials prescribed in these States were analysed with the help of practising teachers. Finally, a national seminar on the curriculum load was organized at New Delhi on 20-21 September 1984. A report based on the exercises carried out during the regional workshops and the deliberations of the working group was presented at the National Seminar which was attended by a number of eminent educationists and high level functionaries of the State Education Departments and the State Education Boards. The

report of the NCERT Working Group, titled Curriculum Load at the School Level — A Quick Appraisal, was brought out.

Analysis of the data obtained from the four States and one Union Territory in which the study was conducted brought to focus the fact that curriculum development including its implementation and evaluation was a multi-dimensional phenomenon. It was found that any discussion on the question of curriculum load had to encompass all aspects of the total endeavour related to curriculum development and transaction such as physical facilities and their utilization, curriculum organization and materials, management of curriculum transaction and examination. The results of the study led to the following conclusions:

- The failure to provide the pre-requisites for the effective transaction of curriculum leads to the problem of curriculum load.
- The problem of curriculum load is more a problem of educational management and resource constraints than a problem of curriculum development.
- Lack of order and system in any of the aspects of curriculum development and implementation, including that of home work assignment, contributes substantially to the problem of curriculum load.
- The quality of curriculum transaction is a major determinant of curriculum load. Even a flawless curriculum, if transacted in an inappropriate manner, may prove to be heavy for pupils.
- The problem of curriculum load is also a social problem having roots in the high aspirations of students and parents and in the widespread spirit of competition which permeates all walks of our social life.
- The present system of examination with its emphasis on memorization is responsible to a great extent for the problem of curriculum load.
- Many a time, errors of judgement on the part of curriculum designers with regard to matching the cognitive demands of the subject matter with the pupils' maturity level leads to the problem of curriculum load.
- The desire to include more and more content in order to raise educational standards, sometimes makes the curriculum ambitious.
- Lack of coordination and articulation between the curricula of different stages and of different subjects leads to

considerable overlap which should be avoided to ensure manageability of curriculum.

#### *School Curriculum in India — a Status Study*

A study of the status of school curriculum in India was completed during the year based on the data collected. During the study, a status paper, titled School Curriculum in India, was brought out. The study dealt with the different aspects of school curriculum in India such as structure and location of different stages, instructional time, scheme of studies, weightage given to different areas, alternative courses, preparation of instructional materials, curriculum vis-a-vis examination system, emerging areas of school curriculum, curriculum development agencies, etc.

#### *Development of New National Curriculum Framework*

Studies conducted on the implementation of school curriculum during the past one decade had indicated the need to modify the curriculum framework followed at the school stage. Activities related to the development of new national curriculum framework was initiated during the year 1984.

#### *Study of the Effect of Psycho-Social Factors on the Comprehensibility of Language*

A study of the effect of psycho-social factors on the comprehensibility of language used in science, social sciences and language textbooks at the primary stage was undertaken by the Department. The study was carried out in Rajasthan during 1984-85.

### **Development of Instructional Material**

Development of textbooks, supplementary readers and other instructional materials continued to be one of the major activities of the Department. The following textual and instructional materials were finalized for publication during the year:

I — The People (English Reader for Class XI, Core Course)

Stories, Plays and Tales of Adventure (English Supplementary Reader for Class XI, Core Course)

As part of the effort to improve the proficiency in English of students at all levels of school education, six booklets, under the series Let's Enrich Our English, were developed. These booklets were designed to develop in the learner the basic skills of reading and writing as well as to enrich his/her vocabulary and give him/her an insight into the important areas of English usage. The following two booklets were published in March 1985.

Let's Enrich Our English: Book I  
(For Entrants to the Secondary School)

Let's Enrich Our English: Book II  
(For Entrants to the Secondary School)

The Department, in collaboration with the Central Board of Secondary Education (CBSE), finalized the following textbooks in Hindi for Class XI Core and Elective courses.

Abhinav Kavya Bharati, Part I  
(For Class XI Core Course)

Abhinav Gadya Bharati, Part I  
(For Class XI Core Course)

Abhinav Katha Bharati, Part I  
(For Class XI Core Course)

Kavya Sanchayan, Part I  
(For Class XI Elective Course)

Gadya Sanchayan, Part I  
(For Class XI Elective Course)

Kahani Sanchayan, Part I  
(For Class XI Elective Course)

In addition to these, activities related to the preparation of books for teaching writing Hindi to children and adults were also initiated.

The following textbooks in Urdu were finalized for publication during 1984-85.

Urdu Ki Nai Kitab for Class I

Urdu Ki Nai Kitab for Class III

Urdu Ki Nai Kitab for Class XI

The other textual and instructional materials developed/revised during the year include the following:

We and Our Government  
(Revised version of the textbook in Civics for Classes IX and X)

Physical Geography — Hindi and English versions  
(Textbook in Geography for Class XI)

An Introduction to Our Economy  
(Textbook in Economics for Classes IX and X)

Sanskrit Textbook for Class XI  
(Revised version)

Other activities undertaken include preparation of charts for teaching Sanskrit grammar, work related to preparation of a book in History of Sanskrit Literature, and revision of the publication on the Constitution of India for Young Learners.

Preparation of teaching-learning material relevant to the needs of tribal women living in different tribal areas of Madhya Pradesh was undertaken in collaboration with the Panchayat and Social Welfare Department, Government of Madhya Pradesh. A set of materials consisting of a primer, a workbook, an instructor's guide and a collection of poems/songs/stories was developed and finalized after the try-out in Tribal Adult Education Centres. The Department also developed certain instructional materials for neo-literates. These materials developed in collaboration with the State Resource Centre, Haryana, included a textbook, a workbook and a teacher's guide.

The Department has also been engaged in the development of curriculum and textbooks in English and Hindi for the Union Territory of Arunachal Pradesh. During 1984-85, the following books in Hindi were finalized for publication:

Workbook for Arun Bharati, Part III

Arun Bharati, Part IV

The following books in English were also finalized for publication:

Dawn Readers — Textbook for Class I

Dawn Readers — Supplementary Book for Class I

Dawn Readers — Workbook for Class I

A National Seminar-cum-Workshop on Textbooks and Reading Material was organized from 25 to 29 March 1985. The seminar was attended by about 80 educationists including the Chairman of Textbook Bureaux, Directors of SIEs/SCERTs and private publishers. Several issues related to the preparation and publication of textbooks such as advantages and disadvantages of single and multiple textbooks, problems of production and distribution of textbooks and reading materials, evaluation of textbooks, procedures adopted for the development of syllabi and textbooks, etc., were discussed in detail during the seminar.

The important terms and concepts in political science for Classes XI and XII were identified in a workshop organized from 29 August to 5 September 1984. Detailed explanation of more than 650 term and concepts in political science taught at the +2 stage was finalized during the workshop.

A workshop-cum-working group meeting for developing guidelines and course structure for teacher training programme in Art

Education was organized at Udaipur from 13 to 17 March 1985. Thirty experts in Art Education participated in the workshop. Detailed discussion on issues related to the training of art teachers in the context of the new art education programme developed by the NCERT was held during the workshop. The group recommended a two-year teacher training programme after the Senior Secondary stage for those who would like to seek appointment as art teachers at the primary stage, a three-year training programme in art education leading to a diploma/degree for those who seek appointment as art teachers at the secondary stage and a one-year teacher training programme in art education for those who possess a diploma/degree in professional art courses and desire to be appointed as art teachers at the secondary stage.

### **Training of Teachers and Teacher-educators**

A six-day orientation course for Hindi teachers of Delhi was organized to orient them to the innovative approaches to teaching Hindi as mother tongue. The course was attended by 48 persons including teachers, Assistant Education Officers, School Inspectors and key persons of the Education Department of the Municipal Corporation of Delhi. The participants of the course were also oriented to the new methodology adopted in the Bal Bharti Pathmala for introducing Hindi alphabet to children studying in Class I.

Another orientation course in Hindi was organized at Madras from 15 to 21 January 1985. The course was attended by 65 Hindi teachers and 15 Hindi Pracharaks from Tamil Nadu and Pondicherry. In addition to this, 42 middle school Hindi teachers from Sikkim were oriented to the methodology of teaching Hindi during an eight-day course organized at Gangtok from 4 to 11 January 1985.

The Department also collaborated with Kendriya Vidyalaya Sangathan in training English teachers in Kendriya Vidyalayas.

### **Special Projects**

The Department has been engaged in the implementation of certain special projects in the areas of social science and humanities. Several activities under the following projects were carried out during 1984-85.

#### *Value Education*

The project was initially directed to develop curriculum in Moral Education. Later on, the scope of the project was expanded to encompass the broad area of value-education. Under the project, curriculum for Moral Education in Classes I to XII was finalized. Two books on moral education titled "Think over Three



Things" written by Km. A. Chari and "Profile in Courage" written by Shri Manoj Das were also finalized for publication.

### *Reading to Learn*

Activities related to the preparation of reading material under the project, Reading to Learn, were continued. A three-day workshop of writers in Hindi was organized at New Delhi from 26 to 28 March 1985 to finalize the manuscripts of materials in Hindi. Twenty-eight participants including eminent Hindi writers and scholars attended the workshop.

The third meeting of the Steering Committee for English was held at Mysore on 15 and 16 February 1985. It was attended by 13 creative artists and senior professors of English. Manuscripts of seven publications were reviewed at the meeting. The manuscripts of the following titles for the age group 5-9 were later on finalized for publication.

Why is Fatty Happy?

Oh! I've Lost My Thump

The Ship of the Desert

Life is Difficult

### *India's Struggle for Independence through Visuals and Documents*

Under this project, visual panels and write-ups dealing with different events, themes and landmarks in India's Freedom Struggle were finalized for publication. The visual panels and the write-ups have been prepared in such a way that they would have a special appeal to school children and would inculcate in them the spirit of patriotism, nationalism and national integration.

### *National Population Education Project*

The National Population Education Project entered its fifth year during 1984-85. The major activities under the project centred round the training of key personnel and teachers at the State/Union Territory level, development of evaluation tools and studies to assess the impact of population education.

The training of teachers in population education was carried out on a massive scale during 1984-85. About 8,000 key personnel and about 2,15,000 teachers in different States/UTs were trained in different aspects related to the implementation of the project. In addition to this, about 185 teacher-educators were trained by the four Regional Colleges of Education.

An important activity carried out during the year was the preparation of evaluation tools. The tools developed include Popu-

lation Awareness Tests (Level A, Level B, and Level C along with the Manual), tools for evaluation of curriculum, tools for evaluation of textbook lessons, tools for evaluation of classroom and demonstration lessons, tools for evaluation of training activities and tools for evaluation of instructional material.

An evaluation study for the qualitative assessment of curricula and textbook lessons in population education being used in the 14 States was conducted and the report of the study was circulated among the States for effecting improvement in the curriculum and textbook lessons.

An on-the-spot painting competition was organized in 16 States/UTs. The theme of the competition was The Population Situation as I Perceive Now and 20 Years Hence. More than 3,000 entries, including 240 award-winning entries at the State level were received for the national-level competition. At the national-level, three entries from each category — primary, middle and secondary stages of school education — were awarded prizes.

Out of the paintings of children who participated in the painting competition, about 200 of them were selected and an album of these paintings was published in collaboration with UNFPA office at New Delhi. On the basis of this album, an audio-visual kit in English and Hindi was also prepared. The kit was titled "India. My Children, My Future".

A significant activity carried out was the organization of co-curricular activities for propagating the message of population education. Mass media such as radio and television were also used and in the States/UTs about 134 talks on population-related ideas addressed to teachers and 41 addressed to students were telecast/broadcast during the year.

An important development during the year was the decision by some of the States/UTs to assign weightage to the questions on population education in examinations at different stages of school education. This is expected to facilitate introduction of population education in the school system.

Under the Inter-Country Visit Programme, two teams consisting of four persons each, visited countries in Asian region to study population education programme in these countries. One of the teams visited the People's Republic of China, the Republic of Korea and Thailand while the other team visited Indonesia, Philippines and Thailand from 3 to 18 February 1985.

In addition to these, the Population Education Unit at NCERT also organized a four-week Attachment Programme in population education of a two-member delegation from the Socialist Republic of Vietnam.

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## Education in Science and Mathematics

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**Q**UALITATIVE improvement of science and mathematics education at the school stage is one of the major concerns of the Department of Education in Science and Mathematics (DESM). The Department has been engaged in the formulation and implementation of research and experimental projects, the preparation of textual and other instructional materials, and training and extension activities related to science and mathematics education. It acts as the national-level coordinating and monitoring agency for the implementation of the project, Computer Literacy and Studies in Schools (CLASS), and as a nodal agency for the All India Science Education Project (AISEP) and the All India Mathematics Education Project (AIMEP). The Department has also been assisting different States in the revision of syllabi and preparation of textual materials in science and mathematics and has been assisting institutions and organizations to train teachers and teacher-educators on different aspects of science and mathematics education.

## **Science Education**

Several activities directed to improve the quality of science education imparted at different stages of school education were undertaken during the year 1984-85. Research and experimental projects related to teaching of science, preparation of instructional materials, training and extension activities related to science education, in general, and physics education, chemistry education and biology education, in particular, constituted the major activities of the Department. In addition to this, activities related to the development of integrated and inter-disciplinary approaches to teaching science and co-curricular activities such as organization of National Science Exhibition for Children and the establishment of Science Club were also undertaken.

### *Physics Education*

The experimental project, Individually Guided System of Instruction (IGSI), was completed during the year. Under the project, a learner-centred, self-paced, individualized and mastery-based instructional system was developed. Eighteen unit study guides, 18 teachers' guides and mastery assessment tests related to physical science course in Class IX were developed. The experiment was conducted in two schools in Delhi. In addition to this, 21 Class XI physics units of IGSI course developed and tried out during the previous years, were reviewed and revised on the basis of the feedback obtained from students and teachers who participated in the project. Steps for wider introduction of the concepts evolved and techniques developed under the project were also initiated. A three-day orientation course on IGSI for teachers from selected schools from different parts of the country was organized. Twenty-three teachers and teacher-educators were oriented to the different aspects of implementation of Individually Guided System of Instruction in schools.

The design of a wide-angled low-cost stereo camera was developed under another project. The camera was designed to prepare three-dimensional photographs for use as teaching aids in schools. A paper, titled Low Cost Wide-angled Camera with Stereoscopic Attachment, was presented at a symposium on optics held at the National Physical Laboratory, New Delhi, from 5-8 February 1985. Other research activities initiated during the year included a Survey of Science (Physics) Laboratory in Schools and Development and Field Testing of Multi-purpose Mercury Barometer and Other Innovations.

The Department continued its activities related to the preparation of textbooks in physics. The manuscripts of the English and Hindi versions of Physics, Part I, textbook for Class IX, were finalized.

### *Chemistry Education*

Inadequate laboratory facilities for carrying out practicals have been found to be a great hurdle in implementing science curricula at the school level. A survey of chemistry laboratory in 30 secondary and senior secondary schools was carried out to assess the existing facilities. On the basis of the survey, a design for a model laboratory in chemistry has been evolved and guidelines for improving the existing laboratories for their maximum utilization have been developed.

A model experimental course in chemistry based on the new curriculum for Class IX was designed at a workshop held from 12-15 February 1985 at Allahabad. The workshop was attended by 23 experts in chemistry education. In order to facilitate the use of models, demonstration of experiments and introduction of concept based experiments in teaching chemistry at the school stage, a draft of the instructional materials on experiments to be carried out in the laboratory at the higher secondary stage was developed during a six-day workshop held from 25 February to 2 March 1985. The workshop was attended by 32 teachers and teacher-educators. Three dimensional models of atoms, molecules and crystals were developed through another six-day workshop held from 11-16 March 1985. The workshop was attended by 18 teachers, and models were developed by using low cost and easily available local materials.

Other activities carried out included development of modules on new topics in chemistry at the senior secondary stage, development of model experimental course in chemistry at the secondary stage, development of test items for chemistry textbook for Class XI, development of guidelines for the evaluation of pupils' performance in experimental course of chemistry at the senior secondary stage and teachers' guide for Class XI chemistry textbook. These materials were developed through workshops involving in chemistry education experts, teacher-educators and teachers engaged in teaching chemistry at the secondary and senior secondary stages. Other materials developed during the year were the English and Hindi versions of the textbook in Chemistry for Class IX and a supplementary reading material on vocations related to chemistry such as photography, dairying, crop production and vocation related to laboratory technician.

### *Biology Education*

The work related to Indepth Study of Biology Curriculum for Classes I to XII continued during the year. Under another project the biology syllabi from Classes I to XII followed in different States and UTs were analysed. The syllabi were analysed in terms of sequencing

of concepts, depth of treatment of the subject, introduction of new concepts and the level of content compared to other syllabi. Actions were initiated to renew and update the biology syllabi on the basis of the findings of the study.

The Basic Biology textbook for Class IX was developed during the year. The Hindi version of Volume I — Part I of the Basic Biology textbook for Class IX was also finalized.

#### *All India Science Education Project*

The Department organized a seminar-cum-interview under the All India Science Education Project (AISEP) to select teachers and teacher-educators from the States, the Regional Colleges of Education and the Kendriya Vidyalaya Sangathan for an advanced training in UK in science education. The teachers and teacher-educators were selected on the basis of the performance in achievement tests, extempore speech/presentation on selected topics, presentation of lesson plan and interview. Out of 53 teachers who participated in the seminar-cum-interview, 20 were selected under the All India Science Education Project. In addition to this, in order to generate multiplier effect, two post-training workshops, one each in Madhya Pradesh and Uttar Pradesh, were organized. During these workshops, the teachers and teacher-educators who received training in UK under the AISEP during the year 1983-84 shared their experience with other teachers in these States.

#### *Integrated and Inter-Disciplinary Approach to Teaching Science*

Activities related to the implementation of the integrated science curriculum at the elementary stage continued. The major activities carried out included preparation of test items for integrated science textbooks, identification of activities that could be performed by using the science kit guide for integrated science curriculum for Classes VI to VIII, preparation of guidelines and tools for pupils' evaluation in Environmental Studies in Class V and preparation of an integrated science kit guide. In order to train personnel in Environmental Studies style of teaching, two ten-day orientation courses for resource personnel in Environmental Studies were conducted. Twenty-six resource persons from Karnataka and 29 resource persons from Maharashtra were oriented to the different aspects of teaching Environmental Studies at the primary stage.

Three national workshops under the APEID-UNESCO sponsored programme on the Inter-disciplinary Basis of Science for the Preparation of Teaching Materials were organized. The main objective of the programme was to determine the basic ideas required for learning inter-disciplinary science. The acquisition of these basic ideas by

students at the general education stage is expected to help them in their future effective living and to serve as base for joining higher studies in the inter-disciplinary sciences. The report of the programme based on the deliberations during the workshops was prepared and sent to different educational institutions. The activities carried out during the workshops included analysis of NCERT curriculum in science for Classes IX to XII to identify areas which are inter-disciplinary in nature, identification of basic ideas required for learning inter-disciplinary science and development of teaching-learning strategies required for learning the inter-disciplinary sciences.

#### *Co-curricular Activities related to Science Education*

The Fourteenth National Science Exhibition for Children was scheduled to be held at Udaipur from 11-17 November 1984. However, it had to be cancelled due to the sad demise of the late Prime Minister of India, Smt. Indira Gandhi. All preparations for the organization of the exhibition were made. The theme of the exhibition was Indigenous Technology for Development. A total of 137 exhibits from 29 States/UTs were selected for participation in the exhibition.

The Department provided academic guidance and financial support to the States and the Union Territories for the organization of State level Science Exhibition. A list containing subject themes, the type of exhibits to be included in the exhibition and a set of criteria for grading the exhibits was developed by the Department and provided to the States and the Union Territories.

Several meetings were held to discuss organizational matters related to the establishment of a National Science Centre in the Council. A Science Club was set up under the auspices of the National Science Centre on the NIE campus in February 1985. The Club has been catering to the students studying in secondary and senior secondary classes in Kendriya Vidyalayas, Jawaharlal Nehru University and Mother's International School. About 125 children are enrolled in the Science Club. The children spend about two hours each on two days in a week working on projects and experiments of their choice under the guidance of the faculty of DESM. The work materials required for the project and other facilities are provided by the DESM.

Two Subject Committees, one for building and the other for science equipments required for the Science Centre, were constituted. The type of activities to be carried out at the Science Centre and the space required have been finalized on the basis of analysis and assessment of the needs of schools situated in and around Delhi. The Science Centre is expected to take up general awareness programmes,

students projects, laboratory programmes and training programmes.

Twenty-two teachers belonging to the north-eastern States and Union Territories were trained through the organization of two 15-day course on the use of science club kits. In addition to these, two courses were organized for the benefit of teachers in Madhya Pradesh and Rajasthan. During these courses the teachers were oriented to the use of science kits in teaching science at the elementary and secondary stages.

### **Mathematics Education**

Research, development and training activities related to mathematics education formed an important aspect of the work of the Department. An "Investigation into the decline in the study of mathematics and remedial measures" required for improving learning of mathematics was carried out under one of the research projects undertaken by the Department. Under another project an analysis of conceptual common errors in teaching mathematics at + 2 stage and development of easy methods and techniques as a remedial measure was undertaken. A third research project was directed to identify the determinants of under-achievements in Mathematics for girls (including socially handicapped girls).

A remedial self-help course was developed on the basis of the diagnosis of weaknesses in mathematics identified during the study.

The major developmental activities carried out in the field of mathematics education included development of mathematics textbook for Class IX, preparation of enrichment materials in algebra, preparation of application modules in mathematics and development of the Hindi version of the textbook in mathematics for Class IX. The mathematics textbook for Classes XI and XII were reviewed for undertaking revision of these books.

The Department organized a National Seminar-cum-Interview under the All India Mathematics Education Project (AIMEP) to select teachers for deputation to UK for advanced training in mathematics education. Out of the 62 candidates from different States, the Regional Colleges of Education and Kendriya Vidyalaya Sangathan, 19 were selected for the advanced training under the AIMEP. As part of the follow-up programme under the project, two workshops were organized at Delhi and Goa, respectively. The teachers who underwent the advanced training under the AIMEP during the year 1983-84 shared their experience with the teachers in these States during these workshops.

### **Computer Education**

The Computer Literacy and Studies in Schools (CLASS) was started in 1984 to provide students with a broad understanding of



the computer and its applications. For the implementation of this project, 42 resource centres were identified during the year 1984. The programme was introduced in 250 schools in different parts of India. A number of meetings of subject experts, planners and coordinators of the resource centres were organized to work out the strategy of implementation and review of the CLASS project. The software developed by private houses, public undertakings and individuals for computer education was evaluated by experts at a meeting held on 16 March 1985 to assess the feasibility of their use by students.

A series of training programmes on different aspects of computer education were organized. Three training programmes were organized to train the teachers of schools involved in the implementation of the CLASS project. Seventy-five teachers were trained in handling and using the computer in schools during these courses. In addition to this, a three-day orientation programme was organized for teachers of 10 schools involved in the implementation of the CLASS project. Software packages were demonstrated to the teachers during this programme. Apart from this, a six-day training programme for the Administrative, Accounts and Library staff of the NIE on the use of computer in their day-to-day work was organized. Twelve persons were trained through this programme.

#### **Assistance to States and Union Territories and Other Activities**

The Department assisted the Government of Arunachal Pradesh for developing the textbooks in Environmental Studies Part II for Classes III, IV and V. The instructional materials were developed by involving local teachers and teacher-educators. The Department also assisted the Government of Meghalaya, Haryana and Punjab in revising the curriculum and textbooks in all science subjects. The State of Haryana was also assisted in selecting authors for writing the textbooks at the secondary stage. Assistance was provided to train teachers of the Atomic Energy Central schools, Aligarh Muslim University schools and the schools run by the Kendriya Vidyalaya Sangathan. The Department also collaborated with CMC, Hyderabad, in developing indigenous software packages for computer education.

In addition to these, the Department organized a 10-day training programme on science and mathematics education for teachers of the Minority Schools. Forty-five teachers belonging to the minority schools were trained in different aspects of teaching science and mathematics at the school stage during the programme held from 20 February to 1 March 1985.

#### **Publications**

Fifteen publications were brought out during the year under

report. These consisted of textbooks, research papers, reports of seminars and workshops and other supportive materials for curriculum from Classes I to XII. The list of publications brought out during 1984-85 is given below:

<i>S.No.</i>	<i>Title of the Publication</i>
1.	<i>The School Science</i> (Journal) — 4 issues
2.	Paper titled "A Low-cost Wide-angle Stereo Camera". (mimeographed)
3.	Article on Quiz in <i>Oceans</i> , published in <i>The School Science</i>
4.	Paper titled "Aspects of Low Cost School Building and Furniture Design with special reference to Primary School" (mimeographed)
5.	<i>Physics Part I: A Textbook for Secondary Schools (Class IX)</i>
6.	Chemistry Curriculum and Teaching Materials (mimeographed)
7.	Concept-based Experiments in Chemistry for Senior Secondary Stage (mimeographed)
8.	<i>Chemistry Part I</i> Textbook for Class IX
9.	<i>Guidelines for Investigatory Projects in Chemistry</i>
10.	<i>Analysis of +2 Mathematics Syllabi of NCERT, Different States and All-India Competitive Examinations</i>
11.	Some Common Defects in Framing Multiple Choice Type Questions in Mathematics, published in <i>The School Science</i>
12.	Mathematical Method of Balancing a Chemical Equation, published in <i>Int. J. Math. Educ. Sci. Technol.</i> (UK)
13.	<i>Mathematics for Class IX</i> (English and Hindi versions)
14.	<i>Basic Biology</i> , Vol. I, Part I, for Class IX (English version)
15.	<b>CLASS: Computer Literacy and Studies in Schools</b>

### **Science Equipments for Schools**

The Workshop Department has been engaged in the designing of science equipments for schools, development of prototypes and batch production of science kits and training of apprentices and State-level personnel on development and use of science equipment. It also acts as the monitoring agency for the implementation of the project for production of science equipment assisted by Federal Republic of Germany (FRG). It also undertakes repair and maintenance of laboratory equipment, office equipment, automobiles, hot and cold weather equipment and has been engaged in purchase, storage and distribution of equipment and furniture required by different departments of the NIE.

## **Designing Science Equipment**

The design of a small hand-driven generator for alternating current (AC)/direct current (DC) required for conducting laboratory experiments was finalized during the year 1984-85. A low-cost overhead projector which could very well match the performance of the costly conventional projector was developed. The cost of production of the low-cost overhead projector amounts to only one-tenth of that of the conventional projector. An important feature of the projector is its additional facility for rear view projection.

A study of available standards of low-cost primary school building and furniture was undertaken. A paper on the low-cost primary school building and furniture was presented in a national conference organized at the NIE. The presentation of the paper was accompanied by an exhibition of low-cost classroom furniture developed by the Workshop Department.

## **Development of Prototypes and Batch Production of Science Kits**

The major development activities carried out by the Workshop Department include development of a kit on molecular models and equipment for teaching science at the secondary level, designing of a science club kit consisting of 58 items of hand tools, instruments and multi-purpose tools of indigenous design. The design of the science equipment kit was reviewed by a committee set up by the Director, NCERT, and the work related to the improvement of the kit was undertaken. The Department also developed exhibits, panel stands, etc., for the National Science Exhibition for Children. One electronic kit and science club kit developed by the Department were exhibited in the "New Ways of Learning" stall at the International Trade Fair organized at Pragati Maidan, New Delhi.

Production of primary science kits, integrated science kits and science club kits was undertaken at the request of different States and Union Territories. Kits worth Rs 12,51,180 were produced and despatched to various States during the year.

## **Training and Extension Activities**

Seven apprentices from the Industrial Training Institute in Delhi and one Diploma-holder apprentice were trained in different trades. In addition to this, teachers, personnel from SCERTs/SIEs, fellows and visitors from foreign countries were exposed to the design, development and production of science equipment.

## **FRG-assisted Project**

The Ministry of Education has undertaken a project of mass production of science equipment in two States. The project assisted by

the Federal Republic of Germany is implemented in the States of Madhya Pradesh and Uttar Pradesh. Under the project work related to the setting up of production centres at Allahabad and Bhopal was initiated during the year. The project is monitored by the Workshop Department. Three persons working on the project at the State level were deputed to undergo advanced training in West Germany. The Department has been working in close collaboration with the States implementing the project especially for building capability for development and production of science equipment and the training of technical staff involved in the implementation of the project.

### **Repair and Maintenance Activities**

Furniture, equipment, spare parts and raw materials worth Rs. 2.58 lakh were centrally procured, stored and distributed/utilized for repair and maintenance of equipment, furniture, vehicles, hot and cold weather equipment, public address system, electric and electronic gadgets, etc., available in different departments of the NIE and other constituent units of the NCERT.

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## Vocationalization of Education

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**T**HE Department of Vocationalization of Education (DVE) is charged with a multifaceted responsibility of providing the States and UTs with necessary academic inputs pertaining to the two work-oriented schemes of education, viz., Vocationalization of Higher Secondary Education, and Socially Useful Productive Work (SUPW) at all stages of school education in the country. The main functions of the Department include —

- Development of instructional-curricular material.
- Short-term training programmes for vocational teachers.
- Orientation programmes for State officials and key persons.
- Research on various aspects of work-oriented education.
- Consultancy to various organizations.

The staff members of the Department include 11 members of the academic staff in the fields of horticulture, commerce, technology, para-medical, home science and education, and 16 members of supporting staff.

## **Research**

A research study was undertaken to find out the pursuit of vocational students after they passed out from Class XII. The study covering a period of four years (1979-82) and about 143 schools in four States revealed several interesting facts, which are contained in a publication entitled "Post-Secondary Pursuit of the Students of Vocational Spectrum of Studies". It was found that a majority of vocational students (67-77.8 per cent) passed out successfully and nearly 44 percent of them from Karnataka found gainful employment while employment position in Maharashtra and other States was quite dismal. Employment ability of para-medical vocational students was the highest (74 per cent) followed by those in the areas of Home Science (59.5 per cent), Technical (57.9 per cent), Agriculture (46.3 per cent) and Commerce-based vocational courses (28 per cent). Copies of the study have been supplied to all agencies concerned with vocational education throughout the country.

## **Training**

During the year 1984-85 the Department of Vocationalization of Education conducted five short-term teacher training programmes with a view to updating the knowledge and expertise of vocational teachers in their respective vocations. The training programmes were conducted in specialized institutions utilizing their infrastructural facilities and expertise to develop the necessary vocational skills in the teachers. The participants were imparted the required theoretical and practical knowledge and they were also provided with reference books in the vocations that were compiled on the basis of lectures/practicals conducted during the training programmes. The details of the training programmes are given below:

1. A programme of Training of Teachers in Servicing and Repairs of Domestic Electrical Appliances was organized at Bangalore from 14 May to 2 June 1984. It was attended by 21 participants.
2. A short-term Teachers Training Programme for Vocational Teachers in Automobile Servicing and Maintenance was organized at Pune from 21 May to 9 June 1984. It was attended by 12 participants.
3. A short-term Teachers Training Programme in Sericulture was organized at Mysore from 22 May to 18 June 1984. It was attended by 28 participants.
4. A short-term Teachers Training Programme for Vocational Teachers in Commerce — Accountancy, Office Management and Stenography — was organized at Surat from 22 May to 18 June 1984. It was attended by 43 participants.

5. A short-term Teachers Training Programme in Dairying was organized at Karnal from 11 June to 8 July 1984. It was attended by 13 participants.

### **Development**

Developmental activities were accorded top priority owing to the following reasons: (i) vocational students and teachers do not have suitable instructional materials designed specially to cater to their requirements, and (ii) syllabi of the majority of the vocational courses in vogue in the States lack due vocational orientation, clarity of objectives and appropriate blending of theory and practice and their sequential arrangement etc., which calls for immediate revision of the existing syllabi and development of competencies based model syllabi of vocational courses.

### **Workshops**

The Department conducted a series of workshops which resulted in —

- the development of minimum vocational competencies based curricula of 18 vocational courses.
- the development of a prototype kit on video receiver.
- the development of modules in Mechanical Engineering.
- the development of laboratory manual in electrical wiring.
- the development of instructional-cum-practical manual in Inland Fisheries.
- the development of two supplementary readers for Multipurpose Health Worker Course.
- the revision of nine vocational syllabi in Andhra Pradesh.
- the review and editing of six instructional-cum-practical manuals, teacher's guides and supplementary readers of vocational courses.

Subject specialists, experts, professionals having first-hand field experience, State officials, representatives from employing agencies and vocational teachers participated in the workshops. The materials developed through various workshops will be made available to the concerned States as a significant NCERT contribution towards the promotion of vocational education in the country.

The particulars of the workshops organized are given below:

1. A workshop on Identification of Minimum Vocational Competencies in Fisheries was organized at C. Institute of Fisheries, Bombay, from 19 to 24 March 1984. It was attended by 31 participants.

2. A workshop on Identification of Minimum Competencies for Vocational Commerce Subject — Accountancy and Auditing, Taxation was organized at the NIE from 14 to 20 September 1984. It was attended by 14 participants.
3. A workshop on Minimum Vocational Competencies based Curriculum on (a) Repaired, Maintenance and Rewinding of Electrical Motors and (b) Repair and Maintenance of Radio and Television was organized at Bengal Engineering College, Howrah, from 26 November to 1 December 1984. It was attended by 22 participants.
4. A workshop on Development of Minimum Vocational Competencies based Curriculum on Pre-Primary Teachers Education and Creche Management was organized at the NIE from 10 to 15 December 1984. It was attended by 10 participants.
5. A workshop on Identification of Minimum Competencies to be attained in Three Vocational Courses in Agriculture was organized at the NIE from 9 to 14 January 1985. It was attended by 23 participants.
6. A workshop on Minimum Vocational Competencies based Curriculum on (a) Rural Engineering Technology and (b) Audio-visual Technician was organized at Allahabad from 9 to 14 January 1985. It was attended by 19 participants.
7. A workshop on Identification of Minimum Competencies on Printing and Binding Technology was organized at MBI Polytechnic, Rajaji Nagar, Bangalore, from 7 to 11 January 1985. It was attended by 15 participants.
8. A workshop for Identification of Minimum Competencies in Sericulture was organized at CSR Institute, Mysore, from 14 to 18 January 1985. It was attended by 12 participants.
9. A workshop on Development of Vocational Competencies based Curriculum in Library Science was organized at the NIE from 11 to 16 March 1985. It was attended by 12 participants.
10. A workshop for the Development of Instructional-cum-Practical Manual in Inland Fisheries was organized at CIT Education, Bombay, from 4 to 13 March 1985. It was attended by 28 participants.
11. A workshop on Development of Two Supplementary Readers on Multipurpose Health Worker Vocational Course was organized at Maulana Azad Medical College, New Delhi, from 21 February to 2 March 1985. It was attended by 14 participants.



12. A workshop on Development of Framework for Pre-Service Courses in the Regional Colleges of Education was organized at the NIE from 21 to 23 March 1985. It was attended by 26 participants.
13. A workshop on Development of Modules in Four Topics in Mechanical Engineering was organized at the NIE from 19 to 24 January 1985. It was attended by 10 participants.
14. A workshop on Development of Laboratory Manual on Electrical Wiring Estimating and Costing (Phase I) was organized at Technical Teachers Training Institute, Calcutta, from 1 to 8 February 1985. It was attended by 19 participants.
15. A workshop on Prototype Kit on Transistorized Receiver was organized at IIT, Madras, on 17 October 1984. It was attended by eight participants.
16. A workshop on Development of Minimum Competencies based Curriculum in Ophthalmic Technician and Rehabilitation was organized at the NIE from 21 to 26 March 1985. It was attended by 11 participants.
17. A workshop on Tryout of Instructional-cum-Practical Manual on (a) Agricultural Meteorology and (b) Water Management was organized at Agriculture College, Hebbal, Bangalore, from 1 to 5 November 1985. It was attended by eight participants.
18. A workshop on Review and Finalization of Reading Materials in Dairying was organized at NDRI, Karnal, from 19 to 23 March 1985. It was attended by 19 participants.
19. A workshop to Review the Supplementary Reading on Microbiology and Communicable Diseases was organized at M.A. Medical College, Delhi, from 18 to 20 March 1985. There were five participants.
20. A workshop on Syllabus Revision was organized at Board of Intermediate Education, A.P., Hyderabad, from 7 to 11 November 1984. It was attended by 26 participants.
21. A workshop on Syllabus Revision at BIE, Hyderabad, was organized at Board of Intermediate Education, A.P., Hyderabad, from 21 to 25 March 1985. It was attended by 22 participants.
22. A workshop to Review Teacher's Guides in Accountancy I and Accountancy II was organized at RCE, Bhopal, from 22 to 27 January 1985. It was attended by 10 participants.

## **Extension**

Implementing personnel at the grassroot and higher levels can contribute their best towards successful execution of any educational programme provided they have adequate conceptual clarity. This holds good particularly regarding vocationalization of education and SUPW programmes having a host of inherent academic as well as administrative complexities. Keeping this in view the Department conducted a National Seminar on Vocationalization of Education at the NIE from 23 to 25 April 1984. This was followed by three orientation programmes for the key persons of Kerala, Karnataka and Orissa organized at Trivandrum, Bangalore and Bhubaneswar in August and September 1984.

A national-level consultancy meeting of experts and officials from various States and the national level, on the future course of implementation for SUPW, was also organized in DVE on request from the Ministry of Education to provide proper input for the Seventh Plan formulation. Besides, three orientation programmes on SUPW were organized for key persons of Rajasthan, Karnataka and Andhra Pradesh at Ajmer, Bangalore and Hyderabad. These programmes proved effective catalyst for the promotion of SUPW and Vocationalization of Education in the States, as the participants were fully convinced about the desirability of the schemes and were committed to do their best for their successful implementation.

## **Consultancy**

The Department offers consultancy to various State Governments and other agencies in the form of discussions, meetings, participation in seminars and conferences, special lectures, etc. During 1984-85 the Department interacted effectively with Haryana, Himachal Pradesh, Punjab, Assam, Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan, Chandigarh, Delhi, NIEPA, Jamia Millia, the Council of Boards of Secondary Education, Universities of Madras and Punjab, Ministry of Labour, UNESCO, etc. The details are given in the table below:

<i>S.No. Organization seeking Consultancy</i>	<i>Purpose of Consultancy</i>
1. Academic Council and Council of Higher Secondary Education, Assam	Introduction of 10+2 pattern, vocational courses
2. Himachal Pradesh, Department of Education	Introduction of Vocationalization under 10 + 2 pattern of education
3. University of Punjab	Introduction of 10+2 pattern

4.	Haryana, Directorate of Industrial Training and Vocational Education	Implementation of Vocationalization through the State Council of Vocationalization
5.	Haryana, Directorate of School Education	Introduction of SUPW at +2 stage
6.	Rajasthan, Board of Secondary Education	Introduction of SUPW at the secondary and higher secondary stage
7.	Rajasthan, SCERT	Introduction of SUPW up to Gr. VIII (Curriculum formulation)
8.	Madhya Pradesh, Board of Secondary Education	Preparation for Vocationalization at the +2 stage
9.	Bihar, Directorate of Secondary Education	Introduction of vocationalization at the +2 stage
10.	University of Madras and TTTI, Madras	Formulation of M.Tech. Ed. Course
11.	Uttar Pradesh, Board of Secondary Education and Directorate of School Education	Syllabus formulation for +2 stage vocational courses in the area of commerce and implementation of the programme
12.	National Institute of Educational Planning and Administration	Task force on two programmes relating to SUPW and Vocationalization
13.	Ministry of Labour, Government of India	Meeting of Technical Committee of CIRTES and Working Group on Vocational Training for Women
14.	Ministry of Home, Minorities Department	Discussion and meeting on programmes for educationally backward minorities
15.	Council of Boards of Secondary Education	Implementation of vocationalization programme
16.	Jamia Millia, New Delhi	Development of Vocational Courses for +2 stage
17.	Regional Office, UNESCO ACEID	Participation of experts in Work Experience Programme
18.	Ministry of Education, Government of India	Matters relating to Vocationalization and SUPW

### **Publications**

Intensive efforts made by the DVE through its various development and other activities during 1984-85 have resulted in a number of publications immensely useful not only to vocational students and teachers, but also to educational planners and administrators. The publications thus brought out are readily made available to the concerned clientele for their use. Instructional manuals, teacher's guides, supplementary readers and similar curricular materials are initially tried out in the schools and later on printed for wider circulation after receiving feedback for thorough revision.

Given below is the list of publications brought out by the Department during 1984-85.

1. *National Seminar on Vocationalization of Education (1984) — an Abstract Report*
2. *Vocational Education at +2 Stage*
3. *Post-Secondary Pursuit of the Students of Vocational Spectrum of Studies (1979-82)*
4. *Instructional-cum-Practical Manual for Vocational Students — Floriculture*
5. *Instructional-cum-Practical Manual — Vegetable Crops*
6. *Instructional-cum-Practical Manual for Vocational Students — Plant Protection in Horticulture Crops*
7. *Instructional-cum-Practical Manual — Plant Propagation*
8. *Instructional-cum-Practical Manual — Fundamentals of Fruit Production*
9. *Instructional-cum-Practical Manual — Fruit Cultureation*
10. *Reading Material — Animal Reproduction and Artificial Insemination*
11. *Reading Material — Milk and Milk Products*
12. *Teachers' Guide in Banking—I*
13. *Teachers' Guide in Banking—II*
14. Volume II. *Basic Medical Sciences for Technicians: Anatomy*
15. Volume II. *Basic Medical Sciences for Technicians: Physiology*
16. *Public Health Entomology*
17. *Instructional-cum-Practical Manual — Elements of Electrical Technology (Class XI)*
18. *Instructional-cum-Practical Manual — Lineman Practice (Class XII)*
19. *Instructional-cum-Practical Manual — Basic Material and Related Workshop (Class XI)*
20. *Instructional-cum-Practical Manual — Principles of D.C. Circuit, Electromagnetism and A.C. Circuits (Class XI)*
21. *Minimum Vocational Competencies Based Curriculum — Inland Fisheries.*

22. *Minimum Vocational Competencies Based Curriculum — Fish Processing Technology*
23. *Minimum Vocational Competencies Based Curriculum — Poultry Production*
24. *Minimum Vocational Competencies Based Curriculum — Swine Production*
25. *Minimum Vocational Competencies Based Curriculum — Farm Mechanic*
26. **Minimum Vocational Competencies Based Curriculum — Agricultural Chemicals**
27. *Minimum Vocational Competencies Based Curriculum — Sericulture*
28. *Minimum Vocational Competencies in Insurance*
29. *Minimum Vocational Competencies in Purchasing and Store-Keeping*
30. *Minimum Vocational Competencies Based Curriculum — Accountancy and Auditing*
31. *Minimum Vocational Competencies Based Curriculum — Taxation Practices/Taxation Laws/Tax Assistant*
32. *Minimum Vocational Competencies Based Curriculum — Pre-School and Creche Management*
33. *Minimum Vocational Competencies Based Curriculum — Repair, Maintenance and Rewinding of Electric Motor*
34. *Minimum Vocational Competencies Based Curriculum — Repair and Maintenance of Radio and Television Receiver*
35. *Minimum Vocational Competencies Based Curriculum — Rural Engineering Technology*
36. *Minimum Vocational Competencies Based Curriculum — Audio-Visual Technician*
37. *Minimum Vocational Competencies Based Curriculum — Clock and Watch Repair Technology*
38. *Minimum Vocational Competencies Based Curriculum — Printing and Book Binding Technology.*

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# 7

## Teacher Education, Special Education and Extension Services

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**T**HE Department of Teacher Education, Special Education and Extension Services (DTESEES) has been undertaking research and experimental studies, preparation of instructional materials and training and extension activities in the areas of teacher education, women's education, education of the disadvantaged and special education. The Department also acts as the modal agency for implementing activities of the Centres of Continuing Education of teachers and as the Secretariat of the National Council for Teacher Education (NCTE).

### **Teacher Education**

Qualitative improvement of elementary and secondary teacher education programmes is one of the major concerns of the Department. Research and experimental studies aimed at improving the teaching competence of teacher-trainees and teacher-educators, revision of teacher education curriculum, preparation of textual and other instructional materials for the use of teacher-educators and

**teacher-trainees, and the training of teacher-educators and others engaged in the implementation of teacher education curriculum constituted some of the major activities of the Department.**

### *Elementary Teacher Education*

"A Comparative Study of Teacher Profiles in Rural and Urban Settings in Elementary School System" was completed during the year. The main objectives of the study were to examine elementary teacher profiles in respect of their background and professional and socio-economic variables and to compare male and female teacher profiles in respect of socio-economic status and certain selected psychological variables. The sample for the study consisted of 450 teachers (223 from elementary schools in rural areas and 227 from schools in urban areas) from the States of Bihar, Madhya Pradesh, Haryana and Tamil Nadu.

The activities related to the Third National Survey of Elementary Teacher Education Institutions continued during the year. The questionnaire prepared for the survey was reviewed and finalised in a workshop held at Udaipur from 12 to 15 March 1985. In addition to this, as part of the work on the study of the Status of Teachers in India, the data collected in respect of elementary school teachers were analysed.

The source book titled *Teacher and Education in the Emerging Indian Society*, prescribed for the elementary teacher education course, was finalised for publication. Another activity carried out was the collection of information regarding innovative practices tried out by elementary teacher training institutions during 1981-82 and 1982-83 and preparation of a report titled *Innovative Practices in Elementary Teacher Education In India*.

The Eleventh All-India Competition in Seminar Reading Programme (1984-85) was conducted during the year. Papers related to innovative practices carried out by Principals, Teacher Educators and Coordinators in elementary teacher training institutes received through the SIEs/SCERTs were evaluated by a panel of evaluators and five papers were selected for the award. The award consisted of Rs. 500 in cash and a merit certificate.

A six-day in-service education programme for staff members of elementary teacher training institutes in Sikkim was organized at Gangtok. Six teacher-educators participated in this programme. Another activity carried out was a training-cum-action research project designed to validate the effectiveness of overall micro-teaching procedures and to study the relative effectiveness of variations in its components with regard to the general competence of teacher-trainees. In this context, a six-day workshop was organized to identify

teaching skills specific to elementary stage and their behavioural components and to design specific studies which could be carried out by teacher-educators in elementary teacher training institutions. The data collected during the studies conducted by the teacher-educators were analysed during another 6-day workshop and the reports of the studies were prepared by the teacher-educators.

### *Secondary Teacher Education*

In the area of secondary teacher education a research project, related to Value-Orientation of B.Ed. Student Teachers, was taken up in collaboration with four colleges of education in the northern region. The design of the study was finalized at a meeting of teacher-educators from these colleges held from 2 to 4 July 1984. Tools for assessing four values — perseverance, scientific thinking, nationalism and dedication to work — were prepared. Subsequently a four-day workshop on Value Clarifying Strategies was held from 6 to 9 August 1984 to orient the teacher-educators associated with the implementation of the project to the value clarifying strategies. Traditional methods of value inculcation, behavioural dimension of selected values, value clarifying strategies, and methods of measurement of value orientation were discussed during the workshop.

The activities related to the Fourth National Survey of Secondary Teacher Education in India continued during the year. A questionnaire was prepared and sent to all the colleges of education seeking information on various aspects of B.Ed course or its equivalent leading to first degree in education. The data collected under the Study of Relationship of Self-concept Attitude and Adjustment with Achievement of SC/ST and non SC/ST Student Teachers were analysed and report-writing was initiated during 1984-85.

The Department assisted some of the universities to revise the secondary teacher education curriculum on the basis of the recommendations of the National Council for Teacher Education (NCTE). Three workshops were organized to revise the B.Ed. syllabus of universities. The first workshop was held at Srinagar from 18 to 22 October 1984 to revise the B.Ed syllabus of the University of Jammu and the University of Kashmir. Thirty-two teacher-educators participated in this workshop. The second workshop was organized at Kanpur from 14 to 18 January 1985 for revising the B.Ed. syllabi of Kanpur University and Banaras Hindu University. Thirty-seven teacher-educators participated in this workshop. The third workshop was organized to revise the B.Ed syllabus of universities in Kerala. This workshop was attended by 35 teacher-educators. In addition to these, the Department also organized a four-day workshop at Kuruk-



shetra from 27 to 30 August 1984 to revise the M.Ed. syllabus of Kurukshetra University.

The work related to the preparation of a source book on Health, Physical Education and Recreation was initiated during the year. Two working group meetings were organized to review the manuscript of the book.

The Eleventh All-India Seminar Reading Competition for teacher-educators of secondary teacher training institutions was conducted during the year. Thirty-one entries were selected for the national-level competition and eight papers were selected for the awards. The awards constituted a sum of Rs 500 and a certificate of merit. Another activity carried out during the year was a workshop of teacher-educators to plan and design research projects in areas related to teacher education. The workshop held at Indore from 4 to 9 February 1985 was attended by 25 teacher-educators, and research proposals related to the priority areas of the NCERT were finalized.

In order to prepare a National Resource Group on Models of Teaching, two workshops of teacher-educators were organized. The first workshop held at Pune was attended by 14 teacher-educators while the second held at Indore was attended by 25 teacher-educators. These workshops were followed by a meeting of the expert group on Models of Teaching to develop a training-cum-research project on models of teaching.

A three-day orientation programme was organized at Maharshi Dayanand University at Rohtak to orient the teacher-educators to the revised secondary teacher education curriculum. Thirty-two teacher-educators participated in the workshop. In addition to this, the Department organized a six-day orientation programme to orient teacher-educators to different areas of curriculum and evaluation based on the textbook titled *Curriculum and Evaluation* prescribed for secondary teacher education programme. This programme organized at Nagpur was attended by 27 teacher-educators.

### **Women's Education**

In the area of women's education, activities under the research projects, titled Need-based Education for a Tribe and Need-based Vocations for Girls, continued. A four-day orientation programme for the key personnel at elementary level on status of women through school curriculum was organized at Bombay. This programme was attended by 24 participants. Another four-day orientation programme was organized at Trivandrum to orient key personnel at secondary and senior secondary stage to the status of women through curriculum. Twenty-one persons attended this programme.

## **Education of the Disadvantaged**

During the year 1984-85, several research and developmental activities related to the education of the disadvantaged sections of the society, particularly the Scheduled Castes and the Scheduled Tribes, were undertaken. A Comparative Study of Physical Facilities in the Primary Schools in Tribal and Non-Tribal Areas was completed. Another study continued during the year was a study of the Interrelationship between Education of the Scheduled Tribes and Their Socio-economic Mobility. The sample for the study was drawn from the Kharia, Munda and Oraon tribes of Bihar. Other studies which continued during the year include A Study of Subject-wise Performance of Tribal Students of Primary Level to Determine Their Weak and Strong Points and a Comparative Study of the Educational Achievement of Scheduled Castes and Non-Scheduled Caste Students of Class X of Uttar Pradesh.

The Department was actively engaged in the preparation of textbooks for tribal students. Textbooks for Class II for children belonging to the Saora tribe of Orissa were prepared and introduced in 120 selected schools of two districts of Orissa. In addition to this, reading material for tribal students of non-formal education centres located in tribal areas was also prepared. A comprehensive primer in both language and arithmetic for the use of Santhals studying in non-formal education centres in West Bengal was prepared. The primer was written in Santhali language and Bengali script.

Two training courses in tribal life and culture and problem of tribal education were organized during the year. The duration of each course was seven days. The first course was attended by 12 teacher-educators from elementary teacher training institutions located in tribal areas while the second course was attended by eight teacher-educators from secondary teacher training institutions located in tribal areas. Apart from these, two training courses for key personnel engaged in the implementation of non-formal education centres in tribal areas were organized. Thirty-seven participants were trained on the different aspects of implementation of non-formal education programme in tribal areas.

## **Special Education**

The work related to the Survey of Research in Special Education continued during the year. The main objective of the survey was to collect abstracts of projects undertaken by individuals as well as institutions in the area of special education up to 1984.

A national workshop of writers to develop instructional material for the use of resource teachers in special education was organized.

**Experts in different areas of disability — visual handicap, hearing impairment, orthopaedic handicap and mental retardation — participated in the workshop. During the workshop the content outlines of the materials were discussed and a common framework for writing the instructional materials was finalised. Later on, the instructional materials were reviewed and finalized for publication.**

The Department also developed a syllabus for a three-month training programme for key persons involved in integrated education for the disabled. Another major activity in this area was a national seminar on Integrated Education for Hearing Impaired Children, organized at New Delhi. The discussions during the seminar centred round six major themes, namely, the concept of integrated education for the disabled in the context of hearing impaired children, early detection and preparation of the hearing impaired child for integration, modalities of integration, implementation of the scheme of integrated education for the disabled, community participation in education and development of the hearing impaired children and research and development needs in integrated education for the disabled.

### **Centres for Continuing Education of Teachers**

The Department has been coordinating the activities of the centres for continuing education of teachers. These centres have been engaged in providing in-service education to secondary teachers and primary teacher-educators in the States/UTs. The grants to the centres are shared by the Central and State governments on 50-50 basis. Twelve additional centres of continuing education in Uttar Pradesh and three in Kerala were established during 1984-85 and the total number of the centres in the country rose to 91. However, out of these, 12 centres did not initiate any activity during the year.

The functioning of the CCEs in Bihar and Karnataka were reviewed at two meetings of the Honorary Directors/Coordinators of the CCEs in these States. In order to assist the CCEs in planning their programmes effectively, two meetings of the working groups were convened in February 1985. During these meetings priority themes for planning programmes for secondary school teachers and primary school teacher-educators were discussed.

### **National Council for Teacher Education (NCTE)**

The Department has been acting as the Secretariat for the National Council for Teacher Education (NCTE). The NCTE consists of four major academic Standing Committees—the Steering Committee, Committee on Pre-School and Elementary Teacher Education, Committee on Secondary and College Teacher Education and Committee for the Training of Teachers for Special Schools for the Physi-

cally Handicapped and the Mentally Retarded. The Standing Committees of the NCTE meet often to discuss matters within their specialization while the NCTE meets once a year to consider the recommendations of the Committees and to give broad guidelines and recommendations on matters of policy. The NCTE sponsors workshops, seminars, orientation programmes, meetings of the working groups or sub-committees of the above committees in pursuance of the broad policy guidelines formulated. During the year under report the following meetings/seminars/workshops were conducted under the auspices of the NCTE:

- Eighth Meeting of the Committee on Pre-School and Elementary Teacher Education held at New Delhi on 23-24 November 1984.
- Eighth Meeting of the Secondary and College Teacher Education Committee held at New Delhi on 29-30 November 1984.
- Sixth Meeting of the Committee for the Training of Teachers for Special Schools for the Physically Handicapped and Mentally Retarded held at New Delhi on 4 February 1985.
- Fifth Conference of State Boards of Teacher Education held at New Delhi on 15 and 16 March 1985.
- National Seminar on Teacher Education held at New Delhi from 26 to 28 November 1984.
- National Workshop on Identification of Themes for the Use of Radio for the In-service Education of Primary School Teachers held at New Delhi from 25 to 28 February 1985.
- First Meeting of the Panel of Authors for Preparing a Source Book on College Teaching held at New Delhi from 3 to 5 March 1984.
- Working Group Meeting for the Development of Source Book on Value-oriented Teacher Education held at New Delhi from 11 to 13 March 1985.
- Second Meeting of Panel of Authors for Preparing a Source Book on College Teaching held at New Delhi from 6 to 8 February 1985.
- Workshop for Development of Elementary Teacher Education Syllabus for States/UTs in North-Eastern Region held at Jorhat from 18 to 23 June 1984.

The minutes of the different meetings of various Committees of NCTE were circulated among different agencies such as the State

Education Departments and other educational institutions in the country. The Handbooks in SUPW for elementary and secondary teacher-educators were also finalized for publication.

### **Other Activities related to Teacher Education**

One of the regular activities of the Department has been the Annual Conference of the Directors of SIEs/SCERTs in States and Union Territories. During the year under report the Conference was organized at Chandigarh from 11 to 13 February 1985. Twenty Directors of SIEs/SCERTs or their nominees participated in the Conference. During the Conference each representative presented the programmes and activities conducted by SIE/SCERT during the year 1984-85 and discussions were held on several aspects of elementary and secondary education particularly on the ways and means of promoting education among the weaker sections and girls through the formal as well as non-formal approaches to education. Strategies for in-service education of primary school teachers were also discussed.

### **Community Singing**

Under the programme of developing community singing as a mass movement, the Department has been organizing training camps on community singing for music teachers drawn from all parts of India. As part of the efforts to institutionalize community singing in the school system and to promote national integration, the Department, in collaboration with various agencies and institutions at the State level, organized 26 camps for training teachers in the art and techniques of community singing. One thousand five hundred and two teachers from 15 States and Union Territories were trained through these camps. During the training programmes, each teacher was trained to sing 15 songs in different Indian languages. Each participant of the training programme was provided with a tape-recorder and audio tapes for use in the school so that children could be trained to sing songs collectively in different languages.

A book entitled *Let's Sing Together*, containing 16 songs in different Indian languages including the National Anthem was published. The songs were transcribed in Devnagari and Roman scripts along with musical notation. The book was released on 7 February 1985 by the Union Minister of Education.

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## Regional Colleges of Education

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**D**EVELOPMENT of innovative programmes of pre-service teacher education is one of the major concerns of the Regional Colleges of Education. They have been engaged in the formulation and implementation of research and experimental studies related to curriculum, methodology of instruction, educational evaluation and educational administration at the school stage. Development of instructional materials for the use of teacher-educators and teacher-trainees and training and extension activities related to different aspects of school education and teacher education constitute the other activities of the Colleges.

Each Regional College of Education caters to the educational needs of the States/UTs under its jurisdiction. The College at Ajmer caters to the needs of the States of Haryana, Himachal Pradesh, Jammu and Kashmir, Rajasthan and Uttar Pradesh and the Union Territories of Chandigarh and Delhi. The College at Bhopal caters to the needs of the States of Gujarat, Madhya Pradesh and Maharashtra and the Union Territories of Dadra and Nagar Haveli and Goa, Daman and Diu. The States of Assam, Bihar, Manipur, Nagaland, Orissa,

Sikkim, Tripura and West Bengal and the Union Territories of Andaman and Nicobar Islands, Arunachal Pradesh and Mizoram are covered by the College at Bhubaneswar while the States of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu and the Union Territories of Lakshadweep and Pondicherry are covered by the College at Mysore.

### **Regional College of Education, Ajmer**

The College offers four-year Integrated Course in Science Education leading to the B.Sc.B.Ed Degree, one-year B.Ed. Course with specialization in Science/Agriculture/Commerce/Language (English/Hindi/Urdu), one-year M.Ed. Course with specialization in Science/Commerce/Languages and Summer School-cum-Correspondence Course leading to the B.Ed. Degree.

#### *Enrolment*

The enrolment in different courses during the year 1984-85 was as follows:

Frist year B. Sc. (H/P) B. Ed.	69
Second tear B. Sc. (H/P) B. Ed.	49
Third year B. Sc. (H/P) B. Ed.	69
Fourth year B. Sc. (H/P) B. Ed.	26
B. Ed (Science)	75
B. Ed.(Agriculture)	27
B. Ed.(Commerce)	33
B. Ed.(Hindi)	44
B. Ed.(English)	28
B. Ed.(Urdu)	30
M. Ed.	17
Total	467

#### *Results*

The results of the year 1984 of the students enrolled/on roll during the session 1983-84 in different courses were as follows:

<i>Course</i>	<i>Total Enrolled, on Roll</i>	<i>Total Appeared</i>	<i>Total Passed</i>	<i>Pass Percentage</i>
First year B. Sc. (H/P) B. Ed.	57	65	51	78.46
Second year B. Sc. (H/P) B. Ed.	65	71	70	98.59

Third year	28	26	26	100.00
B. Sc. (H/P) B. Ed.				
B. Ed. (Science)	55	49	48	97.95
B. Ed. (Agriculture)	25	22	21	95.45
B. Ed. (Commerce)	26	25	24	96.00
B. Ed. (English)	27	26	25	96.15
B. Ed. (Hindi)	38	37	37	100.00
B. Ed. (Urdu)	29	28	24	85.71
M. Ed.	17	17	17	100.00

### *Extension Services*

The Extension Services Department of the College organised workshops/seminars on different areas related to school education keeping in view the needs and demands of the States/UTs covered by the College. During the year 1984-85 the following programmes were organised.

<i>S.No.</i>	<i>Title of the programme</i>	<i>Number of Participants</i>
1.	Workshop on Population Education	16
2.	Workshop on Curriculum Load	63
3.	Workshop on Research Methodology and Experimental Design	22
4.	Workshop on Integrated Education	12
5.	Workshop on Inquiry Approach to Learning Science	13
6.	Seminar-cum-Workshop on Bio-Energy Education	45
7.	Workshop for Development of Teachers' Guide in Fruit Preservation and Vegetable Production	10

### *Publications*

During the year under report the College brought out two issues of the research journal titled *The Educational Trends* published half yearly and started the publication "School Science Resource Letter" proposed to be published quarterly.

### **Regional College of Education, Bhopal**

The Regional College of Education at Bhopal offers four-year Integrated Course in Science Education leading to the B. Sc., B. Ed. Degree, four-year Integrated Course in English leading to the B.A. B. Ed. Degree, one-year B.Ed. Course with specialisation in Science/Commerce/Language, one-year B.Ed. Course with specialization in elementary education, one-year M.Ed. Course and Summer School-cum-Correspondence Course leading to the B. Ed. Degree.



## Enrolment

The enrolment in different courses during the academic session 1984-85 was as follows.

First Year B. Sc. B. Ed.	79
Second Year B. Sc. B. Ed.	65
Third Year B. Sc. B. Ed.	58
Fourth Year B. Sc. B. Ed.	46
First Year B. A. B. Ed.	31
Second Year B. A. B. Ed.	29
Third Year B. A. B. Ed.	30
Fourth Year B. A. B. Ed.	23
B. Ed. (Science)	35
B. Ed. (Commerce)	41
B. Ed. (Elementary Education)	36
M. Ed.	11
Total	<u>484</u>

## Results

The results for the academic session ending April 1984 in respect of students enrolled/on roll during the academic session 1983-84 in different courses were as follows.

Course	Total Appeared	Total Passed
First Year B.Sc. B.Ed.	79	61
Second Year B.Sc. B.Ed.	61	54
Third Year B.Sc. B.Ed.	56	41
Fourth Year B.Sc. B.Ed.	46	36
First Year B.A. B.Ed.	30	27
Second Year B.A. B.Ed.	30	20
Third Year B.A. B.Ed.	26	23
Fourth Year B.A. B.Ed.	20	19
B. Ed. (Science and Commerce)	71	70
B. Ed. (Elementary)	35	35
M. Ed.	11	07
B. Ed.(Summer School-Cum- Correspondence Course)	98	91

## Extension Services

The College organised several orientation/training programmes and workshops for training teacher-educators, teachers and educational administrators in different aspects of school education and teacher education. The following programmes were organised by the College during the year 1984-85.

<i>S. No.*Programme</i>	<i>Duration</i>	<i>Number of participants</i>
1. Orientation Programme in Continent-cum-Methodology of Science Teaching for Teacher-educators from Maharashtra and Goa	6 days	18
2. Orientation Programme on Educational Technology for Elementary Teacher Educators from Maharashtra and Goa	9 days	21
3. Orientation Programme for ADIs/ Assistant ADIs/District Planning Officers in Gujarat on Research Methodology with special reference to Interpretation and Analysis of Data	4 days	16
4. Workshop on Orthography of Gujarati Words and Dialectal Influence in Primary Schools	6 days	22
5. Community-singing Programme for Students of the Schools of Bhopal Town	3 days	108
6. Orientation Course for Teacher-educators in Educational Values (based on UGC Foundation Course)	6 days	16
7. Training Workshop on Utilization of Audio-visual Aids and Production of Graphics for Teachers and Teacher-educators from Gujarat	9 days	41
8. Orientation Course in Geography for Higher Secondary Teachers and Teacher-educators from Madhya Pradesh	6 days	20
9. Orientation Programme for Secondary Teacher-educators on Criterion referenced Testing	4 days	22
10. Orientation-cum-Training Course for Teacher-educators in the Integrated Education of the Visually Handicapped	6 days	5
11. Workshop for Preparation of Manual in Farm Mechanism	4 days	2
12. Orientation Course for Co-ordinators and Teachers of Non-Formal Education Centres in Tribal Areas (two courses)	6 days	61
13. Orientation Programme for Teacher-educators in Population Education (two programmes)	5 days	58
14. Community-singing Camp for Students of Demonstration Multipurpose School at Bhopal	10 days	74

15.	Orientation Course for Resource Persons for National Talent Search Scheme	3 days	26
16.	Training Course In Graphic Techniques for Teacher-educators (two courses)	10 days	14
17.	Refresher Course-cum-Workshop for Identification of Basic Concepts in Geography for Secondary Teacher-educators and Teachers	6 days	18
18.	Workshop for Preparation of Instructional Materials In Commerce	6 days	11
19.	Training Course in Environmental Approach to Teaching	5 days	25
20.	Orientation Programme for Resource Persons on Teaching of Mathematics in Higher Secondary Schools of Tribal Areas of M.P.	6 days	27
21.	Orientation Programme for Resource Persons of Centres of Continuing Education in Gujarat	4 days	2
22.	Training Programme for Teacher-educators for Preparation of Proposals for Research Projects	4 days	14

### *Research and Development Projects*

Activities related to seven research projects were carried out during the year 1984-85. As part of the work under the project for Identification of Teaching Skills and Training Strategy for Implementing Environmental Approach to Teaching at Primary Level, a comprehensive instructional material in Hindi for teaching Environmental Studies I and II in Classes III, IV and V was developed include two parallel forms of environmental awareness tests for testing the efficacy of the instructional material and an inventory of some teaching skills useful in employing environmental approach.

The projects on Development of Tools and Techniques to find out Equivalence between the Achievement of Students in Non-Formal Centres and Formal Schools and the project on Identification of Instructional Skills and Development of Related Instructional Material of Non-Formal Education Centres were completed.

Other projects on which work continued were: a Study of Life in Fresh Waters Leading to the Preparation of a Handbook for Biology Teachers, A Study of Flora of Bhopal to Develop Resource Material for Biology Teachers of Madhya Pradesh, a study to assess the Impact of

Teacher Training (B.Ed.) through Correspondence Course on Upward Mobility of Teachers, and a project for Developing, Validating and Testing the Efficacy of Self-Learning Process-based Material for the Development of Some Integrated Processes (Inferring, Predicting, Hypothesizing and Hypothesis-testing) in Science.

As part of the Non-formal Education programme a Balwadi was run on the campus of the College. The final report on the working of the Non-formal Education Centres started under the Experimental Project on Non-formal Education was finalized for publication.

### **Regional College of Education, Bhubaneswar**

The Regional College of Education, Bhubaneswar, offers four-year Integrated Course leading to B.Sc. (Hons), B.Ed. and B.A. (Hons), B.Ed. Degrees, one-year B.Ed. (Secondary) Course, one-year B.Ed. (Elementary) Course, one-year M.Ed. Course, two-year M.Sc. Ed. (Life Science) Course and Summer School-cum-Correspondence Course leading to the B.Ed. Degree.

#### *Enrolment*

The enrolment in different courses during 1984-85 was as follows:

First Year B.Sc. B.Ed.	83
Second Year B.Sc. B.Ed.	75
Third Year B.Sc. B.Ed.	63
Fourth Year B.Sc. B.Ed.	50
First Year B.A. B.Ed.	57
Second Year B.A. B.Ed.	46
Third Year B.A. B.Ed.	31
Fourth Year B.A. B.Ed.	43
B.Ed. (all streams)	195
First Year M.Sc.Ed. (Life Science)	22
Second Year M.Sc.Ed.	17
M.Ed.	20
<b>Total</b>	<b>702</b>

#### *Results*

The results of the year 1984 of the students enrolled/on roll during the session 1983-84 in different courses were as follows.

<i>Course</i>	<i>Total Enrolled</i>	<i>Total Appeared</i>	<i>Total Passed</i>	<i>Pass Percentage</i>
B.Sc. B.Ed. Part I	86	85	64	75
B.Sc. B.Ed. Part II	75	73	73	100
B.Sc. B.Ed. Part III	52	52	41	80

B.A. B.Ed. Part I	50	50	42	84
B.A. B.Ed. Part II	33	33	32	98
B.A. B.Ed. Part III	44	43	43	100
B.Ed. (Secondary Science)	105	104	77	74
B.Ed. (Secondary Arts)	65	62	43	70
B.Ed. (Secondary Commerce)	20	19	15	80
B.Ed. (Elementary Science)	10	9	9	100
B.Ed. (Elementary Arts)	13	13	13	100
M.Ed.	23	18	18	100
M.Sc.Ed. Part I	14	14	14	100
M.Sc.Ed. Part II	15	15	12+3*	
B.Ed. (SSCC) Secondary (Bhubaneswar Centre)	—	317	227	72
B.Ed. (SSCC) Elementary (Bhubaneswar Centre)	—	106	227	72
B.Ed. (SSCC) Secondary (Manipur Sub-Centre)	—	155	116	75
B.Ed. (SSCC) Elementary (Manipur Sub-Centre)	—	85	63	74

\* result withheld

### *Extension Services*

The College organized the following workshops/courses during 1984-85.

<i>S.No.</i>	<i>Title of the Programme</i>	<i>Duration</i>	<i>Number of Participants</i>
1.	Workshop on Basic Electronics Technology	5 days	3
2.	Workshop on Structure and Fabrication Technology	5 days	4
3.	Workshop for Trying out Training Materials in Laboratory Techniques	8 days	15
4.	Orientation Course on Recent Trends in Teaching of Social Studies in Secondary Schools	7 days	29
5.	Content Enrichment Programme in Biology	6 days	29
6.	Orientation Course on Educational Technology and Low-cost Teaching Aids	9 days	20
7.	Orientation Programme on Current Trends in Life Science Education	8 days	18
8.	Workshop on Basic Electronics Technology	10 days	6
9.	Orientation Course in Language Laboratory	6 days	4

10.	Content Enrichment Programme on Basic Concepts in Physical Sciences	8 days	14
11.	Workshop on Structure and Fabrication Technology (second phase)	10 days	6
12.	Orientation Programme on Physical Education	10 days	31
13.	Orientation Course in Research Methodology for Teacher-educators	2 days	3
14.	Orientation Programme for SC and ST Teachers Working in Elementary Schools	7 days	24
15.	Orientation Course for SC and ST Teachers of Secondary Schools of Orissa	7 days	15

### *Research and Development Activities*

Three research projects sponsored by the Educational Research and Innovation Committee (ERIC) were completed during the year. These were: Perception of Teacher Training, Measuring Attitudes towards School, and Change in Attribution of Responsibility. Besides these, the B.A.B.Ed. students of the College conducted a socio-economic study of the snake-charmers of the Patia village in Orissa and a survey of the Consumption Behaviour of the Students of RCE, Bhubaneswar.

### **Regional College of Education, Mysore**

The Regional College of Education, Mysore, offers four-year B.Sc.Ed. Degree Course, four-year B.A.Ed. Degree Course, one-year B.Ed. (Secondary) Course, one-year B.Ed. (Elementary) Course, one-year M.Ed. Course and two-year M.Sc.Ed. Courses in Chemistry, Physics and Mathematics.

### *Enrolment*

The enrolment in different courses during the year 1984-85 was as follows.

First Year B.Sc.Ed.	77
Second Year B.Sc.Ed.	50
Third Year B.Sc.Ed.	53
Fourth Year B.Sc.Ed.	45
First Year B.A.B.Ed.	30
Second Year B.A. B.Ed.	29
Third Year B.A. B.Ed.	31
Fourth Year B.A. B.Ed.	19
B.Ed. (Secondary)	86
M.Ed.	30
First Year M.Sc.Ed. (Chemistry)	21
Second Year M.Sc.Ed. (Chemistry)	22

First Year M.Sc.Ed. (Physics)	22
Second Year M.Sc.Ed. (Physics)	11
First Year M.Sc.Ed. (Maths.)	22
Second Year M.Sc.Ed. (Maths.)	13

Total	561
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### Results

The results of the year 1984 of the students enrolled/on roll during the academic session 1983-84 in different courses are as follows.

<i>Courses</i>	<i>Total Enrolled</i>	<i>Total Appeared</i>	<i>Total Passed</i>	<i>Pass Percentage</i>
M.Sc.Ed. (Chemistry)	22	22	19	86
M.Sc.Ed. (Physics)	15	15	9	60
M.Sc.Ed. (Maths.)	14	14	10	71
M.Ed.	18	18	18	100
B.Ed. (Secondary)	125	125	118	94
B.Ed. (Elementary)	17	17	16	94
B.Sc.Ed.	55	55	48	87
B.A.Ed.	—	—	—	—

### In-Service Programmes and Extension

During the year under review 865 teachers and teacher-educators were given orientation/training through the following workshops/courses/seminars.

<i>S. No.</i>	<i>Programme</i>	<i>Duration</i>	<i>Number of Participants</i>
I.	EDUCATIONAL DEVELOPMENT OF THE SC/ST		
(a)	Workshop on Compensatory Education for SC/ST Children for the Development of Cognitive Skills	6 days	39
(b)	Content-cum-Methodology Course in Science and Mathematics for SC/ST Secondary School Teachers	6 days	23
(c)	Workshop for the Follow-up of Compensatory Education Programme for SC/ST Children	7 days	7
2.	POPULATION EDUCATION		
(a)	Orientation Programme in Population Education for Key Personnel of Andhra Pradesh	5 days	36

(b) Orientation Programme in Population Education for Principals of Colleges of Education	3 days	31
3. PROJECT: TECHNOLOGY IN GENERAL EDUCATION		
(a) Workshop for Training of Teachers for the Project: Technology in General Education	5 days	8
(b) Summer Institute to Try out the Materials and Kits developed under the Project: Technology in General Education	25 days	35
(c) Summer Institute to Try out the Materials and Kits developed under the Project: Technology in General Education	12 days	70
(d) Workshop for Training of Teachers for the Project: Technology in General Education	3 days	10
(e) Summer Institute to Try out the Materials and Kits developed under the Project: Technology in General Education	10 days	70
4. PROJECT : CLASS		
(a) Workshop on Computer Literacy and Studies in Schools (CLASS)	20 days	27
(b) Teacher Training Programme for the Project: CLASS	20 days	26
5. INTERNSHIP		
(a) Pre-Internship Conference on B.Sc.Ed. Internship in Teaching Programme for Teachers of Cooperating Schools	6 days	27
(b) Pre-Internship Conference on B.Ed. Internship in Teaching Programme for Teachers of Cooperating Schools	3 days	23
6. INTEGRATED EDUCATION OF THE DISABLED		
Orientation Course on Integrated Education of the Disabled for Teacher-educators of the Southern Region	4 days	13
7. VOCATIONAL COMMERCE		
(a) Workshop for the Development of Instructional Materials on Methods of Teaching Book-keeping and Accountancy	5 days	21
(b) Short-term Training Course on Book-keeping and Accountancy	7 days	27
8. NTS EXAMINATION		
Orientation Programme for High School Teachers of Bangalore City on the Design of NTS Examination	2 days	27
9. SUPW		
(a) Workshop on Evaluation in Health Education, SUPW and Other Activities	4 days	10



(b) Training Programme in SUPW for Teachers of Bangalore City Schools	3 days	35
(c) Workshop for Training of Key Personnel in SUPW for Middle/Primary Schools	7 days	14
10. INVESTIGATORY PROJECTS IN CHEMISTRY		
(a) Workshop on Investigatory Projects in Chemistry for Teachers of Schools Affiliated to CBSE (this is a follow-up of a similar programme extended to Kendriya Vidyalayas of the region)	6 days	10
(b) Workshop of Selected Laboratory Techniques in Chemistry for Secondary School Chemistry Teachers of KVS	8 days	23
11. RESEARCH METHODOLOGY		
Course on Research Methodology for Teacher-educators	10 days	28
12. TEACHING OF ENGLISH		
(a) Orientation of English Teachers to Methodology of Teaching English under Central Tibetan School Administration (CTSA)	10 days	10
(b) Orientation Course for Fresh Post-graduate Teachers for English of the Junior Colleges of Karnataka	8 days	50
(c) Workshop on the Development of Packages for Spoken Skills in English (A follow-up of last year's programme for Tamil Nadu)	6 days	28
13. DEVELOPMENT OF MODULES/TESTS/KITS		
(a) Workshop for the Development of Modules in Psychology for Teachers of Vocational Education	5 days	12
(b) Workshop for the Development of Unit Tests in Mathematics at the Secondary Level	7 days	15
(c) Workshop for the Development of Kits in Science for All the Units of the Primary School Level	6 days	20
14. OBSERVATIONAL ASTRONOMY		
Orientation Course in Observational Astronomy for Key Personnel from SCERT and Centres of Continuing Education. (A follow-up of a similar programme now extended for the region)	4 days	15
15. REFRESHER COURSE IN GEOGRAPHY		
Refresher Course in Geography for Teachers Teaching Geography at the School Level but not majored in Geography	10 days	26

## 16. UNIVERSALIZATION OF ELEMENTARY EDUCATION

Orientation Programme for AEOs and IOs  
and Teachers of Karnataka under the Aksara  
Sena Project

5 days

29

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### *Research*

The College has undertaken some research studies in different aspects of school education and teacher education. The following research projects were undertaken during 1984-85.

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#### *S.No. Title of Research Project/Problem*

1. Acceptance, Awareness and Impact of RCE (Mysore) Programmes (ERIC project)
  2. An Experimental Model for a Cooperative Remedial Centre in an Institutional Campus, RCE, Mysore (ERIC project)
  3. An Investigation to Assess the Expertise in Population Education of Adult Education Programme Personnel in Pondicherry and Its Relationship to Attitudes towards Such Programme (NCERT Research Fellowship: Ph.D. research)
  4. Development of a Competency-based Curriculum Design for the Methodology of Teaching Mathematics and Its Validation (Ph.D. research)
  5. Home Language, School Language and Educational Performance — An Empirical Study of Scheduled Caste Children of Different Social Classes (NCERT Research Fellowship: Ph.D. research)
  6. Comparative Study of Open Ended Approach in Performing Physics Experiments Vs. Traditional Approach at Higher Secondary Stage (NCERT Research Fellowship: Ph.D. research)
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### *Publications*

The following publications were brought out during 1984-85:

1. *Population Education: a Manual for Teacher Educators*
2. *Handbook on Internship in Teaching*
3. Self-instructional modules in the following units in school science and technology (UNESCO Project: Technology in General Education)

*Energy and Simple Machines*

*Friction*

*Combustion for Light*

*Household Electricity*

*Electro-Magnetic Devices*

*Design Your Diet*

### **Demonstration Multipurpose Schools**

The Demonstration Multipurpose Schools attached to the Regional Colleges of Education function as practising schools of the teacher-trainees enrolled in various teacher education courses offered by the Colleges. These schools are used as a laboratory for trying out innovative practices in school education and teacher education.

The enrolment in different Demonstration Schools during the year 1984-85 was as follows:

Demonstration Multipurpose School, Ajmer	814
Demonstration Multipurpose School, Bhopal	826
Demonstration Multipurpose School, Bhubaneswar	1,074
Demonstration Multipurpose School, Mysore	1,013

The results of the Board Examinations conducted during March-April 1984 were as follows:

<i>School</i>	<i>Class</i>	<i>No. of Students Appeared</i>	<i>No. of Students Passed</i>	<i>Pass Percentage</i>
DMS, Ajmer	XII	72	69	96
	X	71	—	—
DMS, Bhopal	XII	20	16	80
	X	61	59	95
DMS, Bhubaneswar	XII	49	44	89.7
DMS, Mysore	XII	8	7	87.5
	X	73	62	84.8

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# 9

## Educational Technology

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**W**ITH a view to giving a boost to the promotion of educational technology for the improvement and spread of education in the country, the Central Institute of Educational Technology (CIET) was set up in May 1984, by the merger of the erstwhile Centre for Educational Technology and the Department of Teaching Aids of the NCERT. The CIET headed by a Joint Director functions as one of the constituent units of the NCERT.

Realising the potential of educational technology in solving problems in education in the country, the CIET has undertaken multi-dimensional programmes to maintain pace with the increasing demands in this area. Efforts have continued to design, implement, produce and evaluate various systems/media/programmes in this respect. In addition, training programmes to develop competencies in various areas of educational technology, research and development activities were undertaken. Collaboration has been maintained with various States and national and international agencies. A three-year UNDP Project, INSAT for Education, was signed by the Government of India in February 1984. An account of salient activities undertaken during the year follows.

## **INSAT for Education**

The CIET continued with its task of using the INSAT-1B Satellite for the education of rural (school) children and teachers. The project covers the planning of the TV curriculum; training of script-writers, programme producers and other categories of personnel concerned with ETV production; the development of scripts and production of programmes; programme research; the training of TV user teachers; and monitoring the utilization of the programmes.

### *Programme Development*

The satellite transmission service using INSAT-1B was extended to six States — Andhra Pradesh, Orissa, Maharashtra, Gujarat, Uttar Pradesh and Bihar. To develop a TV curriculum, the CIET organized a five-day National Workshop in March-April 1984 for the identification and selection of themes and topics appropriate for ETV programmes at the rural level. The list of suggested themes and topics was further refined by a Committee especially appointed for the purpose. In a subsequent 10-day workshop, detailed programme briefs for the selected ETV themes/topics were prepared. The recommendations of the National Workshop and the detailed programme briefs were circulated to all INSAT States and Doordarshan Kendras for the preparation of scripts and programmes.

### *Programme Production*

The production, dubbing and capsuling of the ETV programmes for Orissa, Andhra Pradesh and Maharashtra continued as per schedule. Programme capsules were despatched to UDK, Delhi, for transmission via Satellite and to DDK, Nagpur, for transmission through terrestrial transmitters. For programmes in Gujarati, the ETV programmes already available with the Space Applications Centre, Ahmedabad, were made use of in preparing programme capsules for Rajkot cluster.

### *Transmission Schedules*

Integrated transmission schedules in respect of different INSAT States were prepared and circulated to all concerned.

### *ETV Training*

In collaboration with Asia Pacific Institute for Broadcasting Development (AIBD), Kuala Lumpur, and UNICEF, a five-week initial training course in integrated TV production for various categories of personnel concerned with ETV production from SIETs, CIET, UNICEF and Sri Lanka, was organized in September-October 1984. In all, 54

trainees participated. Six prototype programmes were produced as part of the course.

A 15-day Orientation-cum-Selection Workshop for ETV Scriptwriters from Bihar was organized from 3 to 17 December 1984. In all, 17 participants attended the workshop.

A four-week on-the-job training in dubbing and capsuling ETV programmes was organized in September-October 1984 for the benefit of the officers of the INSAT Cell, Gujarat.

In collaboration with UNICEF, a week-long ETV production training workshop was organized for producing programmes for the handicapped in September 1984 for 'in house' Producers. During the workshop, a programme on 'Chari' (Clock) for children was produced.

#### *Programme Preview and Field Testing*

The internal programme preview committee continued to preview and analyse ETV programmes produced by the CIET. The comments and suggestions of the preview committee were made available to the TV producers. In addition, some programmes were also tested in the field and the feedback given to the programme producers.

#### *Programme Research*

With a view to planning and producing ETV programmes which are need-based and relevant for a specific target audience, a study was undertaken in the INSAT districts of Uttar Pradesh to study the profile of the audience, life style and characteristics of the people. The report is under preparation. In the meanwhile, three video reports have been prepared and presented to the programme producers for their benefit.

CIET completed another study in Orissa to assess what needs of children required ETV support. The study concluded that it would perhaps be better to use TV for enriching the knowledge of the children. Amongst appropriate objectives for ETV, it was felt that children should be motivated to learn and study on their own.

#### *Monitoring the Utilization of the Programmes*

Two studies on ETV utilization in respect of Orissa have been completed, one for the year 1983-84 and the other for the period ending September 1984. The studies have shown that there is progressive decrease in the number of functioning sets in all the three districts, namely, Sambalpur, Bolangir, and Dhenkanal. Taking all the three districts together for the period ending September 1984, it was found that on an average TV sets functioned in about 33 per cent of the TV schools. The study pointed out the need to revamp the maintenance sub-system to keep the receiving sets functioning. The findings have been reported to all concerned.

## *Planning for the Building and Equipment for CIET and SIETs*

For the implementation of the project, INSAT for Education, for which assistance from UNDP is also available, SIET's production centres are required to be set up in each of the six INSAT States besides the Central Production Centre at the CIET in Delhi. The CIET has taken the responsibility to coordinate the installation of equipment in all these production centres. Orders have been placed with Bharat Electronics Limited to install the equipment on a turn-key basis.

*CIET Studio.* The construction work of the permanent building for the CIET with technical production and training complex has been awarded to the Department of Space. Meanwhile, the Old Library of the NCERT on the Campus has been converted into a (continuity) TV Studio. It was commissioned on 10 September 1984 and the first ETV training course in collaboration with AIBD, Kuala Lumpur, Malaysia, was organized in September 1984, using this studio. The studio was also utilized for the production and dubbing of the ETV programmes in different languages.

*SIET Studio.* The temporary studio in all the six States, with the exception of Andhra Pradesh, are expected to be ready by October 1985. Most of the ENG equipment for the production of TV programmes has already been supplied to the CIET and the SIETs.

### **ETV Programmes**

#### *Education for All*

At the request of the Ministry of Education, the CIET produced a 20-minute video programme entitled Education for All for national telecast. The programme highlights the achievements and challenges towards the realization of universalization of elementary education.

#### *Computer in Education*

The CIET has produced three 45-minute video tapes on computer literacy in collaboration with the Department of Science and Mathematics, NCERT, and IIT, Madras, for training teachers in computers.

#### *Low-cost Aids*

A series of six video programmes on the preparation of low-cost/zero-cost teaching aids has been produced for rural primary school teachers. The programmes have been analysed in a one-day workshop for further work.

#### *Community Singing*

A half-hour video programme has been developed on Community

Singing for possible telecast on the national network. The programme was recorded on 7 February 1985 when the Education Minister Shri K.C. Pant visited the NCERT and released the first copy of the NCERT booklet on Community Singing. The programme included presentation of community songs in different Indian languages rendered by a group of Delhi music teachers.

### **Educational Radio**

#### *Training in Evaluation of Radio Programmes*

Under the project to study educational radio broadcasts of AIR, Bangalore, 50 teachers from two different talukas have been trained for evaluating the radio programmes. A cross-section of the programmes has been analysed from the points of view of production and their relevance to the curriculum. Data have been collected and a report is under preparation.

#### *Programmes on India's Freedom Struggle*

Under the project of producing radio programmes on India's Freedom Struggle for the children of Standards IX and X, eleven programmes are in production.

#### *Programmes on Poets*

Under the project of producing radio programmes on renowned Hindi poets, seven programmes have so far been produced for the children of Standards IX and X.

#### *Programme on National Integration*

Under the project of producing radio programmes on national integration, a series of ten programmes has been produced. The programmes are being field-tested.

#### *Teaching Hindi as the First Language*

The project of teaching Hindi as the first language to the children of the lower primary schools continued in the Jaipur district of Rajasthan. One programme was broadcast daily for Class II children during 1984-85. The other Hindi-speaking States have also shown interest in adapting the programmes for their own use.

### **Educational Films**

#### *Production*

During the period under report, the CIET has produced three black and white 16 mm educational films: *The Ungraded School*, *Socially Useful Productive Work* and *It Happened One Day*.



### ***Duplication of Films for Sale***

Under the programme of supply of educational films to the educational institutes on 'no-profit no-loss' basis, 83 prints of different films produced by the CIET were copied.

### **Central Film Library (CFL)**

#### ***Purchase***

The CIET purchased 30 new educational films and was gifted one film, bringing the total number of films added to the CFL to 8,220.

#### ***Loan Service***

During the period, 7,012 prints of different films were issued free of charge to various educational institutes for exhibition. Another 142 educational institutes enrolled as members of the CFL. The total membership has now increased to 4,547.

#### ***Film Festival***

With a view to popularizing the use of educational films, a film festival for school children and teachers was organized in collaboration with M.S. Institute of Audio-Visual Education of Maharashtra, SCERT, at Pune, Ahmednagar and Aurangabad in February 1985. About 5,000 students of elementary and secondary stage and 500 teachers and headmasters viewed the various films.

### **Audio-Visuals (Slides with Commentary)**

Commentary and drawings were completed for tape-slide on *Valency* in collaboration with the RCE, Mysore, and Delhi University.

#### ***Duplication and Sale***

Fifty sets of each of the tape-slide programmes on *Sanchi, Oxidation and Reduction, Covalent and Ionic Bond* and *Population Education* were duplicated for sale and supply to different educational institutes. In addition, ten sets of film strips of the programme on population education were also sold.

### **Graphic Aids**

#### ***Album on India's Freedom Struggle***

A project entitled India's Struggle for Independence through visuals and documents continued. An album has been developed under the project which consists of 80 panels highlighting various aspects of India's Freedom Movement. The panels were chosen on the basis of the suggestions received in the two National Workshops and Exhibitions conducted by the CIET in collaboration with the DESSH, NCERT. The panels have been reviewed by a review committee con-

sisting of eminent historians to ensure authenticity. The panels are being sent to the press for printing.

### *Charts in Physics*

A meeting of the Physics Working Group for the finalization of the Physics charts was organized at the CIET. In all, ten charts were completed.

### *Charts in Biology*

Two meetings of the Biology Working Group were organized for writing the teaching notes for the Biology charts. During these two meetings, teaching notes for six charts were finalized and the work on other charts is in progress.

### **Low-cost Teaching Aids**

A workshop on Low-cost Teaching Aids was organized at the G.V. College of Education, Sangaria (Rajasthan), for a week in which 28 headmasters and teachers from the rural primary schools of Ganga Nagar district participated. The participants identified difficult concepts in the area of social sciences, languages and mathematics and prepared 31 teaching aids with the help of locally available materials. The participants were exposed to the philosophy, process and methodology of preparing low-cost teaching aids in collaboration with the local artisans and children.

The CIET organized a Working Group meeting on the preparation of teaching aids in Mathematics in July 1984, in which nearly 80 aids at the middle and high school level were tested with the help of the teachers of Mathematics. The aids were earlier prepared in a series of four Working Group meetings held in collaboration with the Association for the Improvement of Mathematics, Vijayawada, Andhra Pradesh.

In another Working Group meeting on the refining of Mathematics teaching aids, organized at Vijayawada in August 1984, all the existing Mathematics teaching aids from the primary school to high school level were reviewed. Nearly 90 models, write-ups and illustrations were modified on the basis of the suggestions given by the teachers. Necessary steps for printing the manual on Mathematics teaching aids on difficult concepts have been taken up.

### **Distance Education**

A six-day workshop on Developing Guidelines for setting up Resource/Study Centres in Correspondence Education was organized during 11-16 February 1985 at Annamalai University, Tamil Nadu. Eight universities offering courses in Correspondence Education participated in the workshop. A handbook entitled, Suggestive

Guidelines for Setting up of Resource/Study Centres for Correspondence Education was developed during the workshop.

### **Training Courses**

A two-week orientation course in Educational Technology for the Teacher-educators from Northern region was organized in Delhi. Thirteen participants from J & K, Punjab, Haryana and Uttar Pradesh attended the course.

A ten-day orientation course in Educational Technology for the Teacher-educators of Rajasthan and Gujarat was organized at Vidya Bhawan, Udaipur.

A brief orientation course-cum-workshop for the State Educational Technology Cell Officers was organized in January 1985. Twenty-nine participants from 19 States participated. The work done by the various ET Cells during 1984-85 was reviewed at length with special reference to the problems faced by them in the implementation of their programmes. The participants also prepared a plan of action for the year 1985-86 in respect of their States.

A two-week training course in educational technology and its application in the production of audio-visual materials particularly tape-slide programmes was organized in January 1985. Twenty-seven participants from different parts of the country attended the course. In addition to the theoretical aspects of ET, the participants were given exercise in the preparation of tape-slide programmes.

A two-week training course in educational technology and its application in the production of audio-visual material, particularly graphic aids, was held in March 1985. The training course was attended by 18 participants from different secondary teacher training institutions in the country. During the course the participants were given training in the theory and practice of preparation of various types of teaching aids such as charts, flannel graphs, flash cards, posters, pictorial books, etc. The participants were taught skills in lay-out and designing, composition, lettering and silk screen printing techniques.

In collaboration with the State Institute of Education, Delhi, a training course was organized for the Commerce Teachers of Delhi schools for five days in October 1984, to impart training in the production of graphic aids with special reference to charts.

An orientation programme for the International Labour Organization (ILO) and INTC Workers Education Project was organized by the CIET in October 1984. The participants were taught skills in the preparation of inexpensive teaching aids, operation of various types of audio-visual equipment and silk screen printing process.

A one-week training course in Photography was organized in which ten teachers participated. During the course the trainees were given training in developing, printing and enlarging the visuals and also taking photographs.

The CIET organized an orientation course for the Primary School Teachers of the Municipal Corporation of Delhi in July 1984, in collaboration with the Education Department of MCD. The objective was to create awareness among the teachers about the use of inexpensive teaching aids at the primary level. Demonstrations of the use of audio-tapes for the teaching of language effectively, low-cost teaching aids and other graphic aids were given.

### **Workshops**

A one-week workshop on Low-cost Teaching Aids for 23 selected headmasters of rural primary schools of Karnataka was organized in collaboration with the State Education Department, Karnataka, at SCERT, Bangalore. In all, 30 concepts were identified and each participant designed one aid in the form of a model with the help of locally available materials.

A Working Group meeting and a workshop of Resource Persons was organized under the ERIC project on An Exploratory Study on the Use of Teaching Aids for Developing Concepts among the Deaf and Mute.

### **Other Programmes**

Under the project Multi-media Package for Teaching Difficult Concepts of Geography at Middle Level, the CIET organized a workshop on vetting instructional materials on teaching difficult concepts of geography and selection of media according to the suitability of the content at the Government Basic Training Institute, Pachmarhi, Madhya Pradesh, in June 1984. The instructional materials were developed through a series of earlier workshops.

A workshop was conducted for the evaluation of products and prototype materials of the CIET. The following two films produced by the CIET were evaluated both from the point of view of their technical quality as well as their contents:

1. *Macro-teaching*
2. *Graphic Aids in Teaching*

Eighteen persons including teacher-educators and teacher-trainees from different institutions in Delhi participated in the workshop.

The CIET sent its educational materials for exhibition at MINEDAP, Dhaka, Bangladesh, and international conference on education at Geneva.

The CIET participated in the International Film Festival by sending four educational films.

The CIET sent four films to Vietnam under the Cultural Exchange Programme of the Ministry.

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# 10

## Measurement, Evaluation, Survey and Data Processing

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**D**EVELOPMENT of innovative approaches and strategies for educational evaluation, research and developmental activities directed at examination reform at all stages of school education, conducting educational surveys to provide data base for educational planning, organization of the National Talent Search Examination and processing data related to various educational surveys and research projects are some of the major functions of the Department of Measurement, Evaluation, Survey and Data Processing (DMESDP). The Department has been carrying out its activities in close collaboration with the Departments/Directorates of Education and Boards of School/Secondary Education in the States and the Union Territories.

### **Educational Evaluation**

As part of the efforts to develop objective-based, comprehensive and scientific evaluation procedures, the DMESDP has been engaged in the development of sample evaluation materials in the form of item banks and unit tests in different subject areas and the training of

teachers, teacher-educators and other personnel involved in educational evaluation and examination reform. Activities related to the project, Development of Criterion Referenced Tests in Environmental Studies at the Primary Stage, continued during 1984-85. A manual consisting of interview schedules to assess educational and vocational aspirations of students and scoring procedures and analysis forms were developed as part of the study of Educational and Vocational Aspirations of Students of Class XII.

Development of conceptual material related to educational evaluation and preparation of item banks and tests in different subject areas formed an important aspect of the work undertaken by the Department. The materials developed include handbooks on evaluation in biology, economics and geography; unit tests on English — A course in Class X, unit tests on English Readers in Classes XI and XII and question bank in economics.

A number of training programmes for training teacher-educators, personnel at the State/UT level engaged in the testing, evaluation and examination reform and paper-setters of examinations conducted by various Boards of Secondary/Higher Secondary Education were conducted during 1984-85. Three ten-day courses were organized to train item writers in history, geography and English. Sixty-two persons were trained in writing test items through these courses. The other training activities carried out included two one-week intensive training course for item writers in mathematics and one intensive training course for item writers in biology. Fifty-one participants attended the courses organized for item writers in mathematics while 26 persons participated in the course organized for training item writers in biology.

The Department organized two workshops, each of one week duration, for training paper-setters of examinations conducted by the Board of Secondary Education, Jammu and Kashmir. One hundred prospective paper-setters in different subject areas were trained in the techniques of evaluation and writing test items during these courses. In addition to these, four workshops, each of eight days' duration, for the improvement of external examination conducted by the Boards of School/Secondary Education in Rajasthan, Manipur, Assam and Goa, Daman and Diu were organized. One hundred and ninety-six persons participated in these workshops.

### **Educational Survey**

"Secondary Analysis of Fourth All India Educational Survey Data on a Sample Basis" was completed in respect of the States of Himachal Pradesh, Jammu and Kashmir, Karnataka, Orissa, Punjab, Tamil Nadu, and Tripura and the Union Territories of Andaman and

Nicobar Islands, Delhi and Goa, Daman and Diu. The analysis provided data related to the availability of physical facilities such as building and number of class rooms in schools, availability of library, book banks, blackboards, playground, games and sports materials, drinking water facilities, etc., in schools. It was found that primary schools lacked most of these facilities while the position with regard to physical facilities and other infrastructural facilities was found to be better in middle, secondary and higher secondary schools.

The "Study of Backwardness of Girls Education" was also completed during the year 1984-85. The study was carried out on a sample basis in eight States — Andhra Pradesh, Bihar, Haryana, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh — to study the causes for non-enrolment and drop-out among girls. From each State, two to five districts representing various zones/regions were selected for the study. Twenty-seven districts constituted the sample. From each district, one block which had a gross enrolment ratio higher than that of the district as a whole, one block which had a gross enrolment ratio equal to that of the district and one block with gross enrolment ratio lower than that of the district were selected for the study. Fifty villages in each district were covered by the study. A sample of 400 parents in each district representing various categories of parents were selected for the study. About 100 to 150 drop-out girls in the age group 9-16 years in each district were interviewed for the study.

The study revealed that the drop-out rate of girls was higher than that of boys and in general the rate was the highest in respect of girls belonging to the Scheduled Castes and the Scheduled Tribes. The study also helped in identifying the causes of non-enrolment and drop-out among girls.

The other research projects on which work continued during 1984-85 included a "Study of Stagnation and Drop-out Rates at Primary Stage in Nine Educationally Backward States", a "Study of Backwardness of Girls' Education in Arunachal Pradesh" and a "Sample Survey of Educational Facilities for Scheduled Castes and Scheduled Tribes in Rajasthan".

The fifth training course in sample survey methods in education was held at Pune from 13 to 22 February 1985. Thirteen persons participated in this course.

The Department had prepared reports on Educational Facilities for Educationally Backward Minorities (Muslim) in four States, viz Andhra Pradesh, Bihar, Maharashtra and Uttar Pradesh. The work was done at the instance of the Ministry of Home, Government of India. The Department also assisted the two National Commissions on Teachers by providing them the data base required for their deliberations.



## **National Talent Search**

The National Talent Search Examination (1984) for students of Classes X, XI and XII was conducted in May 1984. In all 1,03,161 candidates appeared at the examinations — 47,450 for Class X, 33,313 for Class XI and 22,398 for Class XII. A total of 1,415 students — 702 for Class X, 282 for Class XI and 431 for Class XII — were called for interview. Of these, a total of 750 students — 375 for Class X, 150 for Class XI and 225 for Class XII — were selected for the award of scholarships. These included 75 SC/ST students — 35 in Class X, 19 in Class XI and 21 in Class XII. The details regarding statewise number of candidates appeared, interviewed and selected during the year 1984 for Classes X, XI and XII are given in Tables I-III at the end of this chapter.

A change in the scheme of selection for the award of the National Talent Search Scholarships was introduced during the academic session 1984-85. Under the new scheme, the National Talent Search Examination was decentralized at the State level and the selection for the award was proposed to be done at the end of Class X only in two stages. During the third quarter of 1984, the first stage selection was done by the States/UTs through written examination held at the State level. On the basis of these tests, a stipulated number of candidates were recommended/selected for the second level test to be held during May 1985 to select the requisite number of awardees out of the candidates recommended by various States/UTs.

The DMESDP provided all assistance to the States/UTs for conducting the first written examination at the State/UT level. With a view to helping the States/UTs in training their item writers, the Department organized two workshops for training the State-level personnel in the preparation of items for the General Mental Ability Test (GMAT). Sixty-two State-level personnel attended these workshops. In addition to these, 15 training courses for training item writers for Scholastic Aptitude Test (SAT) in the States of Andhra Pradesh, Assam, Gujarat, Haryana, Madhya Pradesh, Manipur, Orissa, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal and the Union Territories of Andaman and Nicobar Islands, Arunachal Pradesh, Chandigarh and Pondicherry were organised. Five hundred and forty-three persons were trained in the writing of items for Scholastic Aptitude Tests through these courses.

To nurture the students who were awarded the National Talent Search Scholarships, four summer schools and nine summer programmes for undergraduate and postgraduate awardees studying in various universities were organised. Eighty undergraduate awardees and 28 postgraduate awardees attended the summer schools and summer programmes.

The total number of NTS scholars, including those awarded during 1984-85, on roll in different schools, colleges and universities, was 4,191, including 162 students belonging to the Scheduled Castes and 44 belonging to the Scheduled Tribes. Of these, 750 were pursuing their studies at the + 2 stage, 571 at the undergraduate stage, 316 at the postgraduate stage, 80 at the Ph. D. stage, 2098 at the first degree stage in professional colleges and 376 at the second degree level in professional colleges

During the year (1984-85), an amount of Rs. 88,32,698 was utilised for the payment of scholarships including payment of Rs. 4,32,698 to SC/ST awardees.

### **Data Processing**

The major activities of the Data Processing Unit of the DMESDP centred around the preparation of data on the input media of the computer, development of the application software and processing of data on the computer. The data pertaining to a number of research projects undertaken by the different departments of the NIE and the constituent units of the NCERT were processed on the computer. Another important task performed was the preparation of the results of the National Talent Search Examination (1984) for Classes XI and XII and preparation of final results of the NTS Examination for Classes X, XI and XII after sealing the marks obtained in the interview by the candidates.

### **Publications**

The following publications were brought out during 1984-85.

1. Impact of Midday Meals Programme on Enrolment and Retention Rates at Primary Stage (abridged version)
2. Need for Developing Composite Marking System (mimeographed)
3. Number Appeared, Passed and Percentage of First Divisioners in Board Examinations in 1980 and 1981 (mimeographed)

TABLE I

Statewise Number of National Talent Search Candidates Appeared/Called for Interview and Selected during the year 1984 for Class X

States/UTs	Appeared	General		SC/ST		Total Selected	General				SC/ST			
		Called for Interview	Selected	Called for Interview	Selected		Selected in Basic Science	Selected in Social Science		Selected in Basic Science		Selected in Social Science		
								Boys	Girls	Boys	Girls	Boys	Girls	
		Boys	Girls	Boys	Girls		Boys	Girls	Boys	Girls				
1. Andhra Pd.	3116	12	6	02	1	7	5	—	1	—	1	—	—	—
2. Assam	3720	01	1	04	1	2	—	—	1	1	—	—	—	—
3. Bihar	7382	123	57	20	10	67	32	2	21	2	3	—	7	—
4. Gujarat	1664	04	—	—	—	—	—	—	—	—	—	—	—	—
5. Haryana	745	08	1	—	—	1	—	1	—	—	—	—	—	—
6. Himachal Pd.	280	03	1	—	—	1	1	—	—	—	—	—	—	—
7. J & K	123	02	2	—	—	2	1	—	—	1	—	—	—	—
8. Karnataka	2470	15	5	03	2	7	4	1	—	—	2	—	—	—
9. Kerala	3040	14	4	01	—	4	4	—	—	—	—	—	—	—
10. Madhya Pd.	2076	09	04	—	—	4	4	—	—	—	—	—	—	—
11. Maharashtra	4783	94	41	08	2	43	32	6	2	1	2	—	—	—
12. Manipur	22	—	—	—	—	—	—	—	—	—	—	—	—	—
13. Meghalaya	90	02	2	02	1	3	1	—	1	—	1	—	—	—
14. Nagaland	06	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Orissa	11610	21	13	01	—	13	5	1	7	—	—	—	—	—
16. Punjab	6950	10	4	01	1	5	2	—	2	—	—	—	—	1
17. Rajasthan	2387	28	19	—	—	19	15	—	4	—	—	—	—	—
18. Sikkim	03	—	—	—	—	—	—	—	—	—	—	—	—	—
19. Tamil Nadu	3662	35	18	08	7	25	14	4	—	—	3	3	1	—
20. Tripura	15	01	1	—	—	1	1	—	—	—	—	—	—	—
21. Uttar Pradesh	5179	35	17	04	1	18	13	1	2	1	—	—	1	—
22. West Bengal	2923	49	24	10	5	29	19	—	5	—	4	—	1	—
<b>Union Territories</b>														
1. A & N Islands	28	1	—	—	—	—	—	—	—	—	—	—	—	—
2. Arunachal Pd.	33	—	—	01	—	—	—	—	—	—	—	—	—	—
3. Chandigarh	393	08	2	—	—	2	2	—	—	—	—	—	—	—
4. D N Havell	17	—	—	—	—	—	—	—	—	—	—	—	—	—
5. Delhi	4504	225	117	05	4	121	84	21	10	2	3	—	1	—
6. Goa, Daman & Diu	96	—	—	—	—	—	—	—	—	—	—	—	—	—
7. Lakshadweep	02	—	—	—	—	—	—	—	—	—	—	—	—	—
8. Mizoram	02	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Pondicherry	169	02	1	—	—	1	—	1	—	—	—	—	—	—
<b>Foreign Countries</b>														
1. London	01	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Tehran	02	—	—	—	—	—	—	—	—	—	—	—	—	—
3. State of Bahrain	04	—	—	—	—	—	—	—	—	—	—	—	—	—
4. Kathmandu	04	—	—	—	—	—	—	—	—	—	—	—	—	—
5. Muscut	01	—	—	—	—	—	—	—	—	—	—	—	—	—
<b>Total</b>	<b>47450</b>	<b>702*</b>	<b>340</b>	<b>70</b>	<b>35</b>	<b>375**</b>	<b>239</b>	<b>38</b>	<b>55</b>	<b>8</b>	<b>20</b>	<b>3</b>	<b>11</b>	<b>1</b>

\* This includes 5 candidates called for interview belonging to SC/ST.

\*\* This includes 5 SC/ST candidates called for interview in General Group.

• These figures include the number of candidates who appeared in the Supplementary Examination.

TABLE II

Statewise Number of National Talent Search Candidates Appeared/Called for Interview and Selected during the year 1984 for Class XI

States/UTs	Appeared	General		SC/ST		Total Selected	General				SC/ST				
		Called for Interview	Selected	Called for Interview	Selected		Selected in Basic Science		Selected in Social Science		Selected in Basic Science		Selected in Social Science		
							Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
1. Andhra Pd.	1920	13	4	—	—	4	3	1	—	—	—	—	—	—	—
2. Assam	299*	—	—	1	1	1	—	—	—	—	—	—	—	1	—
3. Bihar	2539	28	11	3	3	14	7	3	1	—	3	—	—	—	—
4. Gujarat	639	03	2	—	—	2	2	—	—	—	—	—	—	—	—
5. Haryana	499	02	1	—	—	1	1	—	—	—	—	—	—	—	—
6. Himachal Pd.	154	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. J & K	101	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. Karnataka	1127	10	4	—	—	4	4	—	—	—	—	—	—	—	—
9. Kerala	1059	03	2	—	—	2	2	—	—	—	—	—	—	—	—
10. Madhya Pd.	2795	07	5	1	—	5	5	—	—	—	—	—	—	—	—
11. Maharashtra	2168	20	11	6	5	16	11	—	—	—	4	—	—	1	—
12. Manipur	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13. Meghalaya	30*	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14. Nagaland	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Orissa	3145*	03	2	2	2	4	—	1	—	1	2	—	—	—	—
16. Punjab	404*	06	1	—	—	1	1	—	—	—	—	—	—	—	—
17. Rajasthan	2718	33	15	1	1	16	10	2	2	1	1	—	—	—	—
18. Sikkim	03	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. Tamil Nadu	2939	13	6	3	2	8	4	1	—	1	1	—	—	1	—
20. Tripura	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Uttar Pradesh	3873	15	4	—	—	4	3	1	—	—	—	—	—	—	—
22. West Bengal	2600	17	8	2	—	8	8	—	—	—	—	—	—	—	—
<b>Union Territories</b>															
1. A & N Islands	26*	02	2	—	—	2	2	—	—	—	—	—	—	—	—
2. Arunachal Pd.	03	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Chandigarh	234	03	1	—	—	1	—	1	—	—	—	—	—	—	—
4. D & N Haveli	07	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5. Delhi	3766	104	57	—	—	57	41	14	2	—	—	—	—	—	—
6. Goa, Daman & Diu	84	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. Lakshadweep	01	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. Mizoram	03	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Pondicherry	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<b>Foreign Countries</b>															
1. Nepal	02	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	33313	282	136	19	14	150	104	24	05	03	11	—	—	03	—

\* These figures include the candidates who appeared in the Supplementary Examination.

TABLE III

**Statewise Number of National Talent Search Candidates Appeared/Called for Interview  
and Selected during the year 1984 for Class XII**

States/UTs	Appeared	General		SC/ST		Total Selected	General				SC/ST			
		Called for Interview	Selected	Called for Interview	Selected		Selected in Basic Science		Selected in Social Science		Selected in Basic Science		Selected in Social Science	
							Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1. Andhra Pd.	1684	22	10	01	01	11	09	—	01	—	01	—	—	—
2. Assam	273	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Bihar	1783	26	03	02	02	5	03	—	—	—	—	2	—	—
4. Gujarat	999	03	02	—	—	2	02	—	—	—	—	—	—	—
5. Haryana	285	06	05	01	—	5	05	—	—	—	—	—	—	—
6. Himachal Pd.	52	—	—	—	—	—	—	—	—	—	—	—	—	—
7. J & K	89	01	—	—	—	—	—	—	—	—	—	—	—	—
8. Karnataka	747*	19	08	01	01	9	08	—	—	—	—	—	1	—
9. Kerala	981	08	02	—	—	2	02	—	—	—	—	—	—	—
10. Madhya Pd.	288*	09	04	01	01	5	03	1	—	—	—	1	—	—
11. Maharashtra	2052	48	29	05	04	33	26	01	01	01	4	—	—	—
12. Manipur	25	—	—	—	—	—	—	—	—	—	—	—	—	—
13. Meghalaya	30	1	—	—	—	—	—	—	—	—	—	—	—	—
14. Nagaland	03	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Orissa	1022*	04	02	—	—	2	02	—	—	—	—	—	—	—
16. Punjab	172*	02	02	—	—	2	02	—	—	—	—	—	—	—
17. Rajasthan	399	10	05	—	—	5	04	—	01	—	—	—	—	—
18. Sikkim	02	—	—	—	—	—	—	—	—	—	—	—	—	—
19. Tamil Nadu	2644	47	20	03	02	22	17	02	01	—	2	—	—	—
20. Tripura	11	02	02	—	—	2	02	—	—	—	—	—	—	—
21. Uttar Pradesh	3116	36	13	01	01	14	13	—	—	—	1	—	—	—
22. West Bengal	1870	29	14	02	02	16	13	01	—	—	1	1	—	—
<b>Union Territories</b>														
1. A & N Islands	14*	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Arunachal Pd.	09	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Chandigarh	196	07	03	01	01	4	02	—	01	—	1	—	—	—
4. D & N Haveli	10	—	—	—	—	—	—	—	—	—	—	—	—	—
5. Delhi	3425	147	77	07	06	83	60	09	06	02	5	1	—	—
6. Goa, Daman & Diu	47	2	01	—	—	1	01	—	—	—	—	—	—	—
7. Lakshadweep	02	—	—	—	—	—	—	—	—	—	—	—	—	—
8. Mizoram	01	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Pondicherry	160	2	02	—	—	2	02	—	—	—	—	—	—	—
<b>Foreign Countries</b>														
1. London	02	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Behrajn	03	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Kathmandu	02	—	—	—	—	—	—	—	—	—	—	—	—	—
<b>Total</b>	<b>22398</b>	<b>431</b>	<b>204</b>	<b>25</b>	<b>21</b>	<b>225</b>	<b>176</b>	<b>14</b>	<b>11</b>	<b>03</b>	<b>18</b>	<b>03</b>	<b>—</b>	<b>—</b>

\* These figures include the candidates who appeared in the Supplementary Examination.

## Policy, Research, Planning and Programming

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**T**HE Department of Policy, Research, Planning and Programming (DPRPP) was established in May 1984 at the time of reorganization of the National Institute of Education and other Units of the NCERT located in Delhi. Its predecessor department/units were:

1. Educational Research and Innovations Committee (ERIC),
2. Planning Coordination and Evaluation Unit (PCEU) and
3. Programmes Section

The Department comprises 10 members of academic staff (Professors — 4, Readers — 4, Lecturer — 1, Research Associate — 1) and 34 of supporting staff.

### **Major Activities**

The major activities undertaken by DPRPP during 1984-85 are summarized below.

## ***Research and Innovations***

The Educational Research and Innovations Committee (ERIC) which was set up in 1974, is the principal mechanism for supporting research. Eminent researchers in education and allied disciplines from universities and research institutes and representatives from the SIEs and SCERTs comprise the Committee, along with all the Heads of Departments/Units of the NIE and the RCEs. The Professors of the NIE Departments and RCEs are permanent invitees.

The main functions of the ERIC are:

- To support research and innovative projects on education and allied sciences.
- To provide fellowships for undertaking research in education.
- To provide publication grants for Ph. D. theses, monographs, etc.
- To disseminate research findings from time to time and to organise research conferences and lecture series on educational research.
- To conduct courses in Research Methodology in various levels.

## ***NIE Lecture Series***

Under the NIE Lecture series 13 speakers were invited. The talks given by them were on a wide range of topics. The names of these eminent persons and the topics on which they presented their views are given below:

<i>Speaker</i>	<i>Topic</i>	<i>Date</i>
Dr. Walker H. Hill, Michigan	New Trends in Education Testing	10.4.1984
Dr. Irwing Adley and Mrs. Joyce S. Adley	Pupil Discovery making It Real and Plant Spirals and Fillowacci, Numbers A A Maths Gold Mine	21.5.1984 and 22.5.1984
Prof. James Deley, USIS	Cross-cultural Studies In Community Colleges	22.8.1984
Prof. J.D. Hurman, University of Birmingham (U.K.)	Oral Examining	3.9.1984
Smt. Usha Narayan, Research Scholar	Teachers Day	5.9.1984
Dr. P. R. Nayar, Prof. and Head, University of Mysore, Mysore	Sense and Non-Sense in Educational Theory	29.11.1984
Dr Brucee R. Joyce,	Research and Practice in Classroom Teaching	7.12.1984

Ms. Gina Levete, Director, Interlenk Ms. Margret Blackwell Art Project in Manchester Hospital	Dance, Drama, Music and Visual Arts	6.12.1984
Ms. Maria Fernemelez, Director Drama, Fair Home Mr. William Bulman Principal-Lecturer Special Education, West Hill College of Education (Birmingham)		
Mr. Roger Uebershlag, France	Recent Development in School Education in France and about Frienets Pedagogy	11.12.1984
Prof. Joe Khatena University of Mississipp	Educating the Ablest in 80's	6.3.1985

### *Completed Research Projects*

The research projects completed during the year under report are listed in the table below. This is followed by brief accounts of the main findings of these projects.

<i>Title</i>	<i>Principal Investigator</i>
Diagnosis of Language Errors and a Programme of Remedial Teaching in Sanskrit	Prof. P.C. Jain, Jaipur
Case Studies of Scheduled Tribe Failure Students at Middle and Matriculate Levels in Himachal Pradesh	Dr. Lokesh Kaul, Simla
Analysis of Classroom Environments in Tribal Setting with a view to study Its Effect on Learning and Attainment	Dr. S.N. Upadhyay, Raipur
Construction of the Battery of Psychological Test based on Guilford's SI Model	Dr. (Smt.) Usha Khaire, Poona
Achievement Norm Study of Elementary School Children of Tamil Nadu with special reference to Certain School Factors and Student Composition	Shri M. Doraiswamy, Madras
A Study of the Learning Disabilities of Rural Children	Dr. Y. Ramaji Rao, Madras
A Study of Vocationalization of Education at +2 and +3 Stages in Commerce Stream (Maharashtra)	Shri H.V. Gokhale
Curriculum Development in Social Sciences with reference to the Evolving of Methodology of Teaching History	Shri N.B. Dasgupta

### DIAGNOSIS OF LANGUAGE ERRORS AND A PROGRAMME OF REMEDIAL TEACHING IN SANSKRIT

PRINCIPAL INVESTIGATOR: DR. P.C. JAIN

The main findings of the study were: (i) A majority of the teachers did not know clearly the difference between Sanskrit as the main



language and Sanskrit as the third language. (ii) Due to shortage of periods in school time-table the teaching of Sanskrit grammar is not properly done. (iii) Students are not very enthusiastic to learn Sanskrit. The study offers a number of suggestions concerning curriculum, examination system, textbooks, teaching methodology, teacher preparation, school time-table, home-work, etc.

CASE STUDIES OF SCHEDULED TRIBE FAILURE STUDENTS AT MIDDLE AND  
MATRICULATE LEVELS IN HIMACHAL PRADESH

PRINCIPAL INVESTIGATOR: *DR. LOKESH KAUL*

The study was conducted on 109 failure and 116 pass students of Class IX, X, XI and Puc examinations, belonging to both the sexes, of the tribal communities living in the districts of Chamba, Lahaul, Spiti, and Kinnaur of Himachal Pradesh. The main findings were: (i) The tribal failure students were significantly low in their verbal intelligence. (ii) The tribal failure students did not differ significantly from their pass counter parts in non-verbal intelligence. (iii) The tribal failure students were significantly low on verbal and non-verbal creative thinking as compared with the pass group of the tribal students. (iv) The average age of tribal failure students was significantly higher than their pass counterparts. (v) The tribal failure students belonged to low socio-economic status as compared with the pass tribal students. (vi) The tribal failure students were less adjusted than the pass group of the tribal students in the areas of emotional, social and educational adjustments. (vii) The tribal failure students were significantly more anxious in the general as well as in the testing situations than the pass students. (viii) The tribal failure students had (a) poor home environment, (b) a lack of ability to read and comment, (c) no proper planning of distribution of time for different school subjects, (d) a lack of concentration in studies, (e) no proper planning for examination preparation and interest in academic subjects (ix) The tribal failure students were significantly more insecure than the tribal pass students, etc.

ANALYSIS OF CLASSROOM ENVIRONMENTS IN TRIBAL SETTING WITH A VIEW  
TO STUDY ITS EFFECT ON LEARNING AND ATTAINMENT

PRINCIPAL INVESTIGATOR: *DR. S.N. UPADHYAY*

The study was conducted on students of Class VIII reading in 50 middle and higher secondary schools of Bastar district in Madhya Pradesh. The main findings were: (i) Greater inter-personal relationship increased the achievement as measured by the standardized objective test. This was true for the dimensions of involvement and affiliation, but not teacher supports. (ii) The goal orientation aspect of classroom environment as well as its two dimensions, i.e., task orien-

tation and competition, showed very high positive correlation with academic achievement of pupils. (iii) System maintenance and change as the third aspect of the classroom environment correlated positively and significantly with the school achievement. Its one dimension, teacher control, also showed the same results, but the dimension of order and organization as well as innovation did not. The dimension of rule clarity correlated significantly negatively with achievement. (iv) Internal examination marks did not bear significant relationship with any of the aspects/dimensions of the classroom environment. The same was true of learning efficiency. However, it may be said that the sample is small and no policy conclusions can be drawn.

CONSTRUCTION OF THE BATTERY OF PSYCHOLOGICAL TEST BASED  
ON GUILFORD'S SI MODEL

PRINCIPAL INVESTIGATOR: *DR. (SMT.) USHA KHAIRE*

The sample for the pilot study consisted of 49 graduates of five occupational areas, viz., engineering, medicine, architecture, commerce and literature. The main findings were: (i) The profiles for the five occupational groups differ noticeably with respect to level, shape and dispersion. (ii) SI model tests can be used as potent discriminators. (iii) The sex difference was either negligible or was not consistently in favour of either sex. (iv) The urban-rural differences were always prominent.

ACHIEVEMENT NORM STUDY OF ELEMENTARY SCHOOL CHILDREN OF  
TAMIL NADU WITH SPECIAL REFERENCE TO CERTAIN SCHOOL FACTORS AND  
STUDENT COMPOSITION

PRINCIPAL INVESTIGATOR: *SHRI M. DORAISWAMY*

The school children involved in the study were administered three tests papers, i.e., Tamil — I, Tamil — II, and Arithmetic. The main findings were: (i) In respect of school children from hilly areas, the performance was slightly less. (ii) The performance of school children in urban areas was better than that of the school children in rural areas, which may be due to comparatively better facilities in urban areas. (iii) The performance of students in the initial classes was not dependent upon the nature of management of the school. (iv) The income range of the parents did not have any adverse effect on the performance of school children, which may be due to the fact that education at that level is free.

A STUDY OF THE LEARNING DISABILITIES OF RURAL CHILDREN

PRINCIPAL INVESTIGATOR: *DR. Y. RAMAJI RAO*

The study was conducted on Class V pupils of Chittalpakam Panchayat union area in Chingleput district of Tamil Nadu. In all, 720

pupils took the test, and 133 children were identified as having learning disabilities. Of the children covered 18.5 per cent were found to be learning disabled. The behaviour characteristics on the part of the pupils consisted of: (i) inability to follow and remember the classroom directions unless individual help was provided, (ii) inability to retain things unless repeated often, (iii) tendency for misunderstanding words, (iv) inability to grasp simple words/meaning, (v) inability to speak in complete sentences with correct sentence structures, (vi) having little vocabulary, (vii) inability to relate ideas to meaningful matters, (viii) cooperating with others at his age and grade levels, (ix) waiting for his turn.

A STUDY OF VOCATIONALIZATION OF EDUCATION AT +2 AND +3 STAGES IN  
COMMERCE STREAM (MAHARASHTRA)

PRINCIPAL INVESTIGATOR: *SHRI H.V. GOKHALE*

The sample of the study consisted of students, teachers and employers of Nagpur, Aurangabad, Pune and Thane districts. The sample was both urban and rural. The main findings were: (i) The students in general were of the opinion that vocational courses were very useful as compared with general education. (ii) The facilities provided for practical training did not prepare the students for job or self-employment venture. (iii) The instructional materials used were adequate, according to the teachers' opinion. (iv) The employers favoured classification of jobs facultywise recruitment boards. (v) Specialized vocationalization at the +2 and +3 stages in Commerce Stream would save training costs and man-hours.

CURRICULUM DEVELOPMENT IN SOCIAL SCIENCES WITH REFERENCE TO THE  
EVOLVING OF METHODOLOGY OF TEACHING HISTORY

PRINCIPAL INVESTIGATOR: *SHRI N.B. DASGUPTA*

The investigator developed a set of questionnaires and administered the same to teachers. The responses were limited in number and descriptive in nature. The main findings were: (i) History is a record of not merely of human achievements but also of human failures. (ii) The job of a historian is to clear the mind of cant and make true statements about the most important things of man and his society. (iii) The Hindu period specifically suffers from dis-information and occasionally misinformation because of paucity of verified historical evidence. (iv) History must highlight the fact that India offers unity in diversity. (v) The teaching of history must be made purposeful, etc.

*On-going Projects*

Forty-one departmental and nineteen outside research projects were on-going during the year under report. The list of projects is given below.

<i>Title of the Project</i>	<i>Principal Investigator</i>
<b>DEPARTMENTAL</b>	
Comparative Study of Educational Achievement of Scheduled Caste and Non-Scheduled Caste Students of Class X of U.P.	Dr. B.S. Gupta
A Study of Subject-wise Performance of Tribal Students of Primary Level to Determine Their Weak and Strong Points	Dr. B.S. Gupta
A Study of the Interrelationship between Education of Students and Their Socio-Economic Mobility	Dr. B.P. Awasthi
A Study of Methods, Processes and Practices of Non-formal Education Programme for Tribal Students	Dr. L.R.N. Srivastava
Curriculum Evaluation at 10+2 Stage in the Light of Instructional, Development, Social Objectives of Education — a Preliminary Study	Dr. B. Mehdi
Need-based Ecologically Determined and Change-oriented System of Education for a Community — Nomadic Tribe	Dr. (Km.) S. Bisaria
Identification of Local-Regional Need-based Vocations for Girls and Women for Vocationalization of Education	Dr. Surja Kumari
A Comparative Study of the Physical Facilities between Tribal and Non-Tribal Primary Schools	Dr. L.R.N. Srivastava
Identification of Regional Local Need-based Vocations for Girls and Women for Vocationalization of Education	Dr. (Km.) S. Bisaria
A Study of the Implementation of the New Curriculum Framed by NCERT under 10+2 Pattern of Education	Dr. G.L. Arora
A Study of Comprehensibility of Language Used in Science, Social Studies and Language Textbooks at Primary Level	Dr. I.S. Sharma
A Study of Curriculum Load from Pre-Primary Stage to Secondary Stage of School Education	Dr. G.L. Arora
Studying Problems of Indian School Education in a Historical Perspective	Dr. G.L. Adhya
Madhyamik Vidyalyon, Gurukulon Tatha Prasparik Sanskrit Pathshaloan ke Chhatron Ki Sanskrit Vidya ki Samparapti (Achievement) ka Mulyankan	Dr. K.K. Misra
Printing of Teachers Handbook "Know the Plant Around You"	Dr. (Smt.) G.R. Ghosh
Determinants of Under-achievement in Maths for Girls (Including Socially Handicapped Girls)	Dr. Surja Kumari
Analysis of Conceptional Common Errors in Teaching Mathematics at the +2 Stage of Innovations of Easy Methods and Techniques as a Remedial Measure	Dr. S.C. Das
Development of National Test Library — a Central Committee	Prof. A.N. Sharma

<b>An Investigation of the Effectiveness of Performance-based Instructional Material and Methods in Teaching and Learning of Mathematics at the Primary Grades</b>	Prof. A.N. Sharma
<b>A Comparative Study of the Private Costs of Teachers Preparation in Teachers Training Institutes under Different Managements in the Union Territory of Delhi — a Study in Economics of Education</b>	Dr. S.L. Gupta
<b>Compilation and Linguistic Analysis of Hindi Vocabulary of Children of Primary Classes Belonging to Hindi-speaking Area</b>	Dr. K.G. Rastogi
<b>Evaluation of Instructional Materials in Non-Formal Education Centres</b>	Dr. (Smt.) N. Shukla
<b>Identification of Various Approaches/Practice of Non-Formal Education</b>	Dr. H.L. Sharma
<b>A Study of Educational Vocational Planning, Academic Achievement and Selected Psychological and Home Background Variables of Tribal High School Students in and around Shillong (Meghalaya)</b>	Dr. (Smt.) P.H. Mehta
<b>A Programme of Research to Study Vocation Behaviour and Vocational Adjustment of Students in Academic and Vocational Streams</b>	Dr. Swadesh Mohan and Dr. Nirmala Gupta
<b>Development of Criteria Referenced Tests in Environmental Studies at the Primary Stage (for Classes III to V)</b>	Dr. Pritam Singh
<b>Sample Survey of Educational Facilities for SC's and ST's in Rajasthan</b>	Dr. S.M. Bhargava
<b>Sample Study of Stagnation and Drop-outs at Primary Stage in the Nine Educationally Backward States</b>	Dr. R.R. Saxena
<b>Identification of Instructional Skills and Development of Related Instructional Material of the Centres of NFE</b>	Shri S.N.L. Bhargava and J.S. Grewal
<b>A Research Study for Identification of Teaching Skills and Training Strategy for Implementing Environmental Approach at Primary Level</b>	Dr. J.S. Rajput
<b>A Study of the Flora of Bhopal to Produce Resource Material for the Biology Teachers of Madhya Pradesh</b>	Dr. P.K. Khanna
<b>Know the Life in Fresh Waters (a Teachers' Handbook of Fresh Water Biology)</b>	Dr. (Smt.) Chandralekha Raghuvanshi
<b>Developing, Validating and Testing the Efficacy of Self Learning Process Based Material for the Development of Hypothesis Making of Hypothesis Testing Abilities in Science</b>	Dr. A. Grewal
<b>The Determination and Development of Schemes of Thought in Science during Adolescence</b>	Prof. N. Valdyia
<b>Survey and Cultivation of Edible Mushrooms as a Work Experience/Vocational Programme for the High/Higher Secondary Schools</b>	Dr. G.B. Kanungo

<b>Conservation of Aquatic Ecosystem in Orissa</b>	Dr. P.K. Durant
<b>A Comparative Study to Develop a Laboratory Course in Physics based on Open Experiment for the Higher Secondary Stage</b>	Dr. S.G. Ganguli
<b>OUTSIDE PROJECTS</b>	
<b>A Study of the Feasibility of Involvement of Female Health Personnel in Women Education Programme in Rural Community</b>	Prof. Purnima Mathur, New Delhi
<b>Cognitive Style and Cognitive Ability of Tribal and Non-Tribal High School Pupils — a Comparative Study</b>	Dr. B. De. Patna
<b>Identification of Local Regional Need-based Vocations for Girls and Women and Location of These Schools in Medak District</b>	Dr. Dollie Shinoy, Hyderabad
<b>Guidance Need of Children Living in Destitute Homes in U.P.</b>	Dr. Saheb Singh, Varanasi
<b>Construction and Standardization of Silent Reading Comprehension Tests in Gujarati for Pupils of Classes V, VI and VII to Study the Effect of Reading Improvement Programme</b>	Dr. B.V. Patel, Vallabh Vidyanagar
<b>Case Studies of Application of Educational Technology in India — a Pilot Study</b>	Smt. Kusum Kamat, Bombay
<b>Evaluation Tools and Teaching Methods of Hindi Short Story at +2 and Undergraduate Level</b>	Dr. R.S. Sharma and Dr. (Km.) Shashi Kanta Vohra, New Delhi
<b>Discalcula among First Grade of Choryasi Block — A Psychometry Exploration</b>	Prof. S.G. Shah, Surat
<b>An Evaluative Survey of Special Education Programme, Schools and Services for the Mentally Retarded in Andhra Pradesh</b>	Dr. (Smt.) Dollie Shenoy, Hyderabad
<b>Analysis of Class Environments Tribal Rural and Urban Settings with a view to Study its Effects on Learning, Memory, Attainment, and Educational Interest</b>	Dr. S.N. Upadhaya, Raipur
<b>Study of Vocationalization of Education at +2 and +3 Stage in the Commerce Stream (Maharashtra)</b>	Shri H.V. Gokhle, Nagpur
<b>A Comparative Study of the Relative Effectiveness of the Teaching Methods based on Motivation due to Competition and Motivation due to Initiative</b>	Prof. S.B. Malhara, Jalgaon
<b>Rural Enrichment Education Project Featuring Development of Alternate Model and Strategies of Self-learning for the Rural Youth on Topics relevant to Their Life</b>	Dr. N.K. Upasani, Pune
<b>Interaction of Structure in Instructional Material with Creative Training</b>	Dr. (Smt.) Sudesh Gakhar, Chandigarh
<b>Construction and Standardization of Two Sets of Diagnostic Tests, one in Bengali (Mother Tongue) and</b>	Dr. S. Acharaya, Calcutta

**the other in Mathematics for Use with Backward Children of Grades III, IV and V in Bengal Schools**

Developing Strategies for Compensatory Language Programme of Pre-School Children having Socio-Economic and Cultural Deprivation (Disadvantages)	Dr. G. Pankajam, Madurai
A Follow-up Study of Creativity Talented College Students	Dr. Girjesh Kumar Moradabad
Experiment on Continuing Education for Working Children in Rural Area	Dr. M.G. Mali, Gargota
Impact of Education on the Socio-Psychology of Tribal School Students in Orissa	Dr. Girish Patel, Phulbani

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***New Projects***

Four research projects were approved for financial support under the scheme. The list of projects is given below.

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<i>Title of the Project</i>	<i>Principal Investigator</i>
Vocational Behaviour and Vocational Adjustment of Students in Academic and Vocational Unit	Dr. (Smt.) P.N. Mehta Head, DEPC & G
Determination of Census of Low Enrolment of Tribal Girls with a view to suggesting Remedial Measure	Dr. L.R.N. Srivastava Head, DTES & ES
Madhyamik Vidyalayon Gurkulon Ke Chhatron Ki Samprapti Ka Mulyankan	Dr. K.K. Misra, Reader, DESS & H
A Programme of Research to Study Vocational Behaviour and Vocational Adjustment in Students in Academic and Vocational Streams	Dr. Swadesh Mohan and Dr. Nirmla Gupta

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***Publication Grant for Ph.D. Theses/Monographs***

The following Ph.D. Theses/Monographs were published with the assistance of ERIC.

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<i>Title</i>	<i>Name of the Author</i>
Programmed Learning — an Empirical Approach	Dr. N.S. Mavi, Kurukshetra
Psychology of Engineering Creativity	Dr. Manjit Sen Gupta, NCERT
Time Perspective — a Developmental Study	Dr. (Smt.) Manju Srivastava, Gorakhpur
Education for Political Socialization	Dr. (Km) Uma Varshney
A Sociological Study of Educational Development of Graduate Students of Kumaon University with Special Reference to Castes	Dr. Beema Shah, Srinagar (Garhwal)
Education Systems Analysis and Reform with Special Reference to Agricultural Education	Dr. M.P. Gupta, Palampur

Achievement Motivation in Deprived Society	Dr. A.N. Tiwari, Gorakhpur University
Differential Effectiveness of Micro-Learning	Prof. M.R. Paliwal, Bikaner
Nondetention Units and Dropouts	Dr. G. Subramaniam Pillay
Prachin Bharata Prakrita Jana Sikshar Upar Dharmiya Probhav	Dr. D.P. Mukerjee Visva Bharati, Shantiniketan
"Classroom Group Dynamics" Concept and Its Implications	Dr. Jyoti Christian, Baroda
A Comparative Study of the Morphology of Magahi and Bhojpuri	Dr. Lakshman Prasad Sinha, Bodhgaya, Bihar
Administration of Primary Education in West Bengal	Dr. Biswa Ranjan Purkait Distt. Hooghly, West Bengal
Dimensions of Teacher Adjustment	Dr. S.K. Mangal, Rohtak
The Typical Indian Personality as perceived by Indians	Dr. (Smt.) Indu Dave, Udaipur
Guidance and Prediction	Dr. M.B. Pande, Nagpur
Raj Bhasha Samasya Vyavaharik Samadhan	Dr. K.L. Gandhi, New Delhi
Impact and Performance of Correspondence Education Programme of Madurai Kamaraj University	Dr. J.K. Pillai and S. Mohan, Madurai
The Problem of Official Language in India	Dr. K.L. Gandhi, New Delhi
Teacher Creativity and Classroom Behaviour	Dr. Ajit Singh, NCERT
Cost Analysis in Higher Education	Dr. V.P. Garg, NCERT

*Approval for Assistance of the Council for the Publication of Ph.D. Theses/Monographs*

<i>Title</i>	<i>Name of the Author</i>
A Study of Sense of Deprivation among High School Students	Dr. (Km.) Usha Upadhayaya, Varanasi
A Study of Pupils Physics and Group Process in Classroom	Dr. Jyoti A. Christian, Baroda
A Study of Development of Caste and Creed Awareness and Concept Emergence in Children in Eastern U.P.	Dr. Ram Kalap Tiwari, Faizabad
A Study in the Comprehensibility of Language used in Science, Social Science and Language Textbooks at Primary Level	Dr. I.S. Sharma, NCERT



Approval Motive as a Factor in Some Psychological Processes — an Experimental Study	Dr. N.K.M. Tripathi, Gorakhpur
A Study of Moral Development of School Children	Dr. K.M. Gupta, NCERT
Educational Philosophy of the Sikh Gurus	Dr. D.N. Khosla, NCERT
Economic Deprivation of Educational Achievement — a Psychological Study	Dr. Jagdish Singh, Ghazipur
Development of Prejudice in Children	Dr. Neerja Sharme, Bhopal
Work Adjustment of job Satisfaction of Teacher	Dr. S. Narayana Rao, Tirupati
A Study of Social Cohesion in Elementary Teacher Training Institutions and Its Relationship with Attitude and Adjustment of Student-Teachers	Dr. (Smt.) Homa Dutt, New Delhi
A Study of Job Satisfaction at Three Levels of Teaching	Dr. S.P. Gupta, Allahabad
A Critical Study of Vacaspati Mishra's Distinctive Contributions to Avaita	Dr. V.N. Sheshagiri Rao, Manasagangothra, Mysore
A Classroom Instruction Programme for Primary School Children with Learning Difficulties	Dr. (Smt.) Prerana Dillip Singh Mohite, Baroda
A Linguistic Study of Defective Speech amongst Children based on Survey of Agra City	Dr. Ashwani Kumar Shrivastava, Agra
An Experimental Study of Achievement Motivation and Confirmation of Results on the Performance in Linear Programme on Hindi Vocabulary-building	Dr. Budh Prakash
The Testing for Abilities Objective Measurement in Education	Dr. A. Edwin Harper, Allahabad

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### *Training for Research*

It was decided to begin offering four short-cycle courses, the first of which was designed to meet the needs of those who may be preparing a synopsis of an investigation. The Research Methodology Course Level-I was organised in the Department at the NIE Campus from 27 March 1985 to 6 April 1985. Fifteen participants were selected all over the country out of 352 applications received through an advertisement in the newspapers. Fifteen more persons selected for Junior Research Fellowships of the NCERT were also admitted to the course.

### *ERIC Bulletin*

Brief abstracts of the completed research projects financed by the ERIC are brought out in the ERIC bulletins. One ERIC bulletin (Vol. I No. 2 July-September 1984) was brought out during 1984-85.

### **Developmental Activities**

Developmental activities of the DPRPP during 1984-85 comprise ten seminars/workshops/meetings.

These are listed below. This is followed by brief accounts of the two National Seminars/Workshops.

<i>S.No.</i>	<i>Title of the Workshop/Seminar/Meeting</i>	<i>Duration</i>	<i>Name of the Coordinator</i>
1.	National Seminar-cum-Workshop on Problems and Issues regarding Universalization of Elementary Education — Identification of Issues	5 days 19 March- 23 March 1985	Dr. S.L. Gupta
2.	National Seminar on Construction of Intelligence Tests	6 days 27 December 1984 to 1 January 1985	Dr. K.K. Vasishtha
3.	Workshop for the Preparation of Syllabi for Course on Research Methodology	2 days 28-29 September 1984	Prof. C.H.K. Misra
4.	Seminar-cum-Workshop on Qualitative Research Methods	2 days 10- 11 January 1985	Prof. C.H.K. Misra
5.	Meeting of the Sub-Committee on Innovation in Education	2 days 24- 25 January 1985	Prof. L.C. Singh, Convener
6.	Workshop on Review of Indian Test	4 days 19 December to 22 December 1984	Shri J.P. Mittal
7.	Workshop on Review of Indian Test In Print	4 days 28 January to 31 January 1985	Shri J.P. Mittal
8.	Workshop on Review of Indian Test in Print	4 days 25 February to 28 February 1985	Shri J.P. Mittal
9.	Editing of Test Reviews	<b>7 days</b> <b>25 February</b> <b>to 3 March</b> 1985	Shri J.P. Mittal
10.	Sixth Meeting of Central Advisory Committee of National Test Development Library (NTDL)	1 day 26 March 1985	Shri J.P. Mittal

### *National Seminar-cum-Workshop on Problems and Issues regarding Universalization of Elementary Education.*

The Seminar-cum-Workshop was organized for identification of issue for commissioning researches. It was held at NIE-NCERT, New Delhi, from 19 to 23 March 1985. Fifty-seven persons including the Commissioner of Education, Directors of Education and their representatives; Directors of SIEs/SCERTs and their representatives; eminent educationists; directors of research institutions and their representatives; education officers of the Municipal Corporations of Bombay, Delhi, Ahmedabad, Pune; leaders of teacher associations; and the NIE Faculty members and others participated in the deliberations by presenting their state papers and reports. The Seminar-cum-Workshop was inaugurated by the Joint Director, NCERT. The participants worked in four groups and identified thrust areas and issues concerning (i) quantitative aspects, (ii) qualitative performances, (iii) planning, monitoring, financing and management, and (iv) community cooperation and links between formal and non-formal systems of education at the Elementary Level. The report of the Seminar-cum-Workshop has been published and widely circulated among the universities, state departments, etc., for developing researches in the country.

### *National Seminar on Construction of Intelligence Tests*

The National Seminar on Construction of Intelligence Tests was held from 27 December 1984 to 1 January 1985 to develop an understanding of various psychometric principles and techniques of test construction in the area of intelligence, in the light of the shortcomings noted in the test reviews prepared on intelligence tests in order to improve the existing tests, and to discuss new concepts of Intelligence measurement in the context of Indian society and culture. Twenty-two papers were discussed by 13 participants. The seminar made six valuable recommendations. The report has been published and circulated amongst the test constructors, reviewers and users of the tests.

### **National Test Development Library (NTDL)**

Set up by the Council the NTDL serves as (i) a reference test library, (ii) an information centre for psychological tests, (iii) an agency for providing critical reviews of all published Indian tests, and (iv) an institution to identify gaps in test development.

The NTDL is guided by an advisory committee (Central Advisory Committee of NTDL) consisting of top psychometricians of the country as its members. The Committee meets once in a year in the month of March and reviews the work done by the NTDL during the year and suggests the next year's work-plan. The sixth meeting of the Central Advisory Committee of the NTDL was held on 26 March 1985.

### *NTL Bulletins*

The NTL (National Test Library) Bulletin is a continuous activity of the NTDL project. It has brought out four Bulletins as under:

- Bulletin No. 16: Reviews of Intelligence Tests in Print-II.
- Bulletin No. 17: Reviews of Attitude Inventories in Print-I.
- Bulletin No. 18: Reviews of Attitude Inventories in Print-II.
- Bulletin No. 19: Reviews of Personality Tests in Print-II.

### *Review of Tests*

The NTDL organised three workshops on Review of Indian Tests in Print during 1984-85. A total of 107 critical reviews were written for 78 tests — 36 reviews for 29 Intelligence tests, 57 reviews for 41 personality tests and 14 reviews for 8 attitude scales.

The critical reviews are expected

- (i) To exercise a quality control over the development of psychological tests in the country.
- (ii) To assist the test users (researchers, employers, teachers, students of Psychology and Education, etc.) to make a more discriminating selection of standardized tests.
- (iii) To motivate test authors and publishers to place better and fewer tests in the market.

### *Editing of Reviews*

The reviews of the tests were edited by eminent psychometricians to evaluate their worthwhileness for publication. A total of 134 reviews were edited during 1984-85, out of which 96 were accepted by the editors. Seventy-six reviews have been published in the NTL Bulletins 16, 17, 18 and 19 and the remaining 20 will appear in the next issue of the NTL Bulletin.

### *Mental Measurement Handbook*

The test reviews finalized by the editors and published in the NTL Bulletins No. 14 to 19 will be published in the form of Mental Measurement Handbook. Action is under way in this regard.

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## Educational Psychology, Counselling and Guidance

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**Q**UALITATIVE improvement of education, particularly at the elementary, secondary and senior secondary levels, through the application of the disciplines of educational psychology and of counselling and guidance is one of the major concerns of the Department of Educational Psychology, Counselling and Guidance. The Department has been engaged in research development and training activities related to counselling and guidance, identification and development of talent behaviour technology and development of syllabi and instructional materials. The major foci of the projects/programmes carried out are on the optimal development and self-actualization of the learner, in all aspects of his/her potentialities and functioning.

### **Counselling and Guidance**

Counselling and guidance services have an important role to play at all levels of education, if the educational system is to enable the child to develop his potentialities. They have an added importance in

the context of vocationalization of education. Therefore, the Department has been engaged in several activities for promoting and strengthening counselling and guidance services in schools in the country. The major activities carried out are given below.

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

Educational and vocational guidance being a professional service which needs specialists adequately trained in its theory and practice, this course is designed to train counsellors for guidance bureaux in secondary and senior secondary schools and teachers of guidance who will work in colleges and universities. Twenty-seven persons, including four persons belonging to the Scheduled Castes and the Scheduled Tribes, were imparted training during 1984-85. Nineteen trainees were given a stipend of Rs. 325 per month. Special coaching in English as well as in all the theory papers was arranged for the trainees belonging to the Scheduled Castes and the Scheduled Tribes. An educational trip to Ahmedabad was also undertaken as part of the training programme.

#### *Seminar-Cum-Workshop for Principals and Managers of Managers of Minority School*

A Seminar-cum-Workshop for Principals and Managers of Minority Schools was organized during the year. One hundred and ten principals and managers of minority schools participated in the seminar. The participants of the seminar were oriented to the different aspects of counselling and guidance services in schools.

#### *Training Course for Career Teachers in Minority Schools*

A 28-day course for career teachers of minority schools was organized. The course was attended by 39 participants. The major emphasis of the course was on making the teachers aware of the need for guidance services and developing skills for preparing action plans for guidance and counselling services at the lower secondary and higher secondary stages. In addition to this, a training course for career teachers in the Union Territory of Arunachal Pradesh was also organized.

#### *Refresher Course in Guidance*

This course aimed at acquainting the participants with the researches done in the area of guidance as well as familiarizing them with the research problems and the type of research studies that might be taken up in the area of guidance. Twenty-seven participants from different States/UTs attended the refresher course.

### *National Conference on Guidance Services in Schools*

To evolve a national policy on guidance services, a national conference was organized by the Department. The conference was attended by Education Secretaries and Directors of Education from different States and Union Territories. The conference made several recommendations for smooth implementation of guidance services in schools. The report of the conference, entitled *Towards a National Policy on Guidance Services in Schools*, was finalized and brought out during the year.

### *Readings for Career Teachers*

The Department has undertaken preparation of instructional materials for career teachers. The first book in the form of readings for career teachers was developed and finalized during the year. The book has been prepared to meet the training needs of guidance workers and career teachers in schools.

### *Field Services in Guidance and Counselling*

The Department provided field services in guidance and counselling at the request of agencies involved in guidance services at the State level.

Assistance in conducting training programmes for career teachers and orientation of educational administrators to the different aspects of guidance services was provided. The Department also collected and disseminated information regarding the status of guidance services in the country, the activities being carried out by different agencies, the syllabi for training programmes, etc.

In addition to this, the Department had also developed a comprehensive scheme for guidance services in schools during the Seventh Five Year Plan period.

### *Research on Counselling and Guidance*

Several research projects related to counselling and guidance were undertaken by the Department during the year. These include the following:

A Study of Psychological Characteristics vis-a-vis Educational and Vocational Planning of Scheduled Castes High School Boys

The major objective of this study was to identify the psychological differences between rural and urban Scheduled Caste and non-Scheduled Caste high school boys vis-a-vis their career maturity. The findings of the study are expected to help in redesigning the existing guidance and counselling services keeping in view the present priorities. The sample for the study consisted of 280 boys studying in government schools of Haryana. The

analysis of the data was carried out and the work on the preparation of the report was initiated.

A Study of Educational and Vocational Planning, Academic Achievement and Selected Psychological and Home Background Variables of Tribal High School Students in and around Shillong (Meghalaya)

An attempt to collect basic information required for planning guidance services for facilitating vocational, personal and social development of children was made under this project. The analysis of the data was completed and work on the preparation of the report was initiated.

A Study of Educational and Vocational Plans for Boys with Superior Scholastic Ability

The main objective of this project was to explore the educational and vocational planning behaviour of boys having superior scholastic ability and to investigate how they differed from the boys with average ability of these variables. The major work carried out included completion of collection of data and analysis of data collected.

Level of Occupational Aspiration in Adolescents

The main objective of this study was to investigate the differences in the level of occupational aspiration among students in Class IX and to establish the predictors of level of occupational aspirations. A comparative study of the level of occupational aspirations among children belonging to rural and urban areas and male and female sexes was undertaken.

The study did not indicate any difference in the level of occupational aspiration between children belonging to rural and urban areas. The girls were found to have a higher level of occupational aspirations than the boys. Among the boys, the best predictor of the level of occupational aspiration was found to be "number of occupations known" and "scholastic achievement". Among the girls, the best predictor was found to be "number of occupations known" followed by "intelligence", "socio-economic status — global index" and "people known not personally but through other sources".

### **Identification and Development of Talent**

The Department has been engaged in research, development and training activities related to creativity and identification and development of talent. The major projects/programmes conducted were as follows.



### *Training Course for Teacher-educators on Identifying and Encouraging Creative Potential at Elementary Grades*

Two training courses on the methodology of identification of talent and nurture of creativity at the elementary level were organized. The main objective of the training programme was to develop a core group of teacher-educators who will act as resource persons in programmes on methodology of identification and nurture of creativity at the elementary stage organized in different States and Union Territories. The first course was attended by 18 participants from Kerala and Tamil Nadu. The second course was attended by 36 participants from Rajasthan and Madhya Pradesh.

### *National Seminar on Identification and Development of Talent*

A three-day national seminar on Identification and Development of Talent was conducted during the year. Thirty-two participants from different States and Union Territories attended the seminar. An evaluation of some of the existing talent search programmes was undertaken during the seminar and several recommendations regarding identification and development of talent were made. The seminar also discussed details of research studies to be undertaken in the area of identification and development of talent. The papers presented in the seminar are being brought out in the form of a book. Editing of the papers was initiated during the year.

### *Research on Creativity and Identification and Development of Talent*

The Department has been in the process of conducting several research studies related to creativity and identification and development of talent, prominent among which are the following:

#### **A Study of Social and Cultural Changes and Changes in Creative Functioning in Children**

The main objective of this project was to study the impact of the social, educational and cultural changes which had taken place in India from 1967 to 1977, on the development of creative thinking in children. The sample for the study included about 1,000 children from Grades I-VI studying in Delhi schools. The major aspects studied included creative development and performance of children, sex differences in creativity, occupational choices and aspirations of children and the educational ideas and practices of teachers and their perception about the ideal pupil.

## **An Intensive Study of the Accomplishments of the National Science Talent Search Scholars**

The attainments and accomplishment of the NTS scholars of 1964-65 and various issues related to their background and personality were studied under this project. The major activities carried out during the year included the analysis of the data collected and preparation of the draft report.

## **Background Study of the National Talent Search Scholars (1978-80)**

Under this project various background factors of the students of Classes X, XI and XII selected for scholarship, those called for interview and those rejected during the years 1978-80 were studied on nine major background variables. The analysis of the data was completed and the draft report was finalized.

## **Development of the Model for Identification and Development of Talent**

Under this study, a review of the various models on talent search available was carried out. Data were analysed and the first part of the report was written. The study is expected to provide guidelines for evolving an appropriate model of talent search in schools in India.

## **Behavioural Technology**

The Department has been organizing research development and training programmes in the area of behavioural technology. Prominent among the programmes/projects undertaken during the year are given below.

### *Enrichment Course on Learning and Development*

The Department had organized three ten-day enrichment courses on learning and development for primary/elementary and secondary teacher-educators and SIE/SCERT personnel. These consisted of two courses for teacher-educators of elementary teachers' training institutes and one for teacher-educators of secondary teachers' training colleges. Fifty teacher-educators of elementary teachers' training institutes and SIEs/SCERTs and 18 teacher-educators of secondary teachers' training colleges were trained on different aspects of learning and development.

### *Workshop on Application of Behaviour Modification Techniques*

The main objective of this programme was to train State-level personnel in the application of various techniques of behaviour modi-

fication in school setting. During the year two workshops were organized for the States of Kerala and Tamil Nadu. Thirty-three persons from these States participated in these programmes.

#### *Development of a Manual on Behaviour Modification*

A manual dealing with the principles and techniques of behaviour modification in the school setting was developed during the year. During the year, ten topics were written by various experts in the field. It is expected that the manual would help the elementary teacher-educators and teachers in applying the principles and techniques of behaviour modification in improving students' learning and behaviour in the classroom and school situation leading to better educational achievement.

#### **Development of Instructional Materials**

A major area of work of the Department has been the development of instructional materials including preparation of textbooks in psychology for use at the +2 stage. The major activities carried out include preparation of model syllabus in psychology for senior secondary stage, development of question banks in psychology at the +2 stage, development of a manual of psychology practicum for Classes XI and XII. In addition to this, a paper, entitled First Generation Learners across Areas varying in Level of Development, and another paper, entitled A Study of Adjustment of Boys and Girls belonging to the Higher Secondary Schools of Delhi, were published in professional journals.

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# 13

## Field Services and Coordination

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**T**HE Department of Field Services and Coordination (DFSC) coordinates the activities of the Regional Colleges of Education and the Council's Field Offices located in different States/UTs. It maintains continuous liaison with the Education Departments and other institutions in the States and the Union Territories through the Council's Field Offices and helps in the implementation of the policies and programmes of the NCERT relating to different aspects of school education and teacher education.

During the year 1984-85, the Department organized three Regional Meets for identifying the needs and problems as well as the progress achieved in respect of implementation of certain programmes in the priority areas related to school education and for collecting information about the strategies/approaches adopted by the States/Union Territories to overcome these problems. The first meet held at Trivandrum from 29 January to 1 February 1985 was attended by officials from the States of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu. The second meet held at New Delhi from 18 to 21 February 1985 was attended by representatives of the States of Haryana, Jammu and

Kashmir, Punjab and Rajasthan. The third meet held at New Delhi from 28 February to 2 March 1985 was attended by the representatives of the States of Madhya Pradesh and Uttar Pradesh.

### **Field Offices**

The Council has set up 17 Field Offices for liaising with Departments/Directorates of Education and other institutions in the States and the Union Territories. They provide necessary information to the State Education Departments about the activities and programmes of different constituent units of the NCERT. They also collect and communicate to the NCERT and its constituent units information regarding the specific requirements of the States/UTs under their jurisdiction and provide necessary support to the different constituent units of the NCERT to organize training and extension programmes. The Field Offices also provide financial support for small-scale action research projects undertaken by school teachers and organize in-service training programmes at the request of the State Education Departments.

During the year 1984-85, the Field Offices assisted the various Departments of the NIE, the Regional Colleges of Education and the Central Institute of Educational Technology (CIET) in organizing their programmes in the States and the Union Territories. They provided necessary guidance and assistance to the State Departments/Boards of Education in conducting the National Talent Search Examination at the State/UT level. An activity common to all the Field Offices was the organization of the meeting of their Programme Advisory Committees at which the proposal for the programmes for the year 1984-85 and 1985-86 were finalized.

The details of other activities carried out by different Field Offices during 1984-85 are given below.

#### *Field Office at Ahmedabad*

The Field Office located at Ahmedabad covers the State of Gujarat and the Union Territory of Dadra and Nagar Haveli. The major activities carried out during the period 1984-85 are as follows:

- State-level educational toy-making competition for pre-school and primary school teachers of Gujarat. Eighty-one entries from 52 teachers were received and six prizes were awarded.
- State-level educational toy-making competition for pre-school and primary school teachers of Dadra and Nagar Haveli. One hundred and fifty-five entries were received from the teachers of Dadra and Nagar Haveli.

- Training course on preparation of scripts for Educational Television programmes organized from 15 to 19 January 1985 in collaboration with SIET, Gujarat.
- Training course on preparation of teaching aids and other instructional materials organized from 22 to 24 February 1985 and 13 to 14 March 1985 in collaboration with N.V. Patel Vidyamandir, Naroda, and DEO, Ahmedabad (Rural).
- Training programme for teachers of schools offering vocational stream at the + 2 stage organized from 10 to 13 March 1985 in collaboration with the Gujarati Higher Secondary Education Board (10 + 2) Cell, Ahmedabad.

A research project on Vocational Needs and Interests of SC/ST Students was undertaken by the Field Office. Under this project the following activities were carried out.

- Training course in embroidery and tailoring for SC/ST students and other backward classes. The course organized from 20 to 22 June 1984 was attended by 36 girl students.
- Vocational guidance programmes organized at Uttarbunliyadi School at Chori, Balwada and Sarvani on 22, 23 and 25 June 1984.
- Workshop for preparing vocational guidance material/display material/charts organized at Chikhli from 8 to 13 June 1984.
- Vocational guidance programme-cum-exhibition organized at Sarvajanic High School, Vaghaldhara, Bulsar District on 2 August 1984.
- Workshop for developing charts and display material for SC/ST students of Chikhli Taluka held at Ahmedabad from 26 October to 7 November 1984.
- Exhibition on vocational guidance at the Government High School, Silvassa, held on 4 August 1984.

In addition to these activities, the Field Office continued to implement the experimental project scheme. Out of the 40 project proposals received from the various schools of Gujarat, 18 selected projects were financed during 1984-85. The Field Office also provided necessary guidance for organizing various teacher training programmes of the Centres of Continuing Education.

#### *Field Office at Allahabad*

The major activities carried out by the Field office at Allahabad are as follows.

- Workshop for reviewing the syllabus of L.T. organized at Allahabad from 4 to 7 December 1984. Twenty Senior Lecturers of L. T. Training Colleges in Uttar Pradesh participated in the workshop.
- Workshop for reviewing and revising the elementary teacher training course held from 7 to 10 January 1985. Twenty eight teacher-educators of elementary teacher training institutions participated in the workshop.
- Workshop on experimental project designs held from 21 to 23 February 1985. Twenty-seven lecturers and teachers of secondary and higher secondary schools participated in the workshop.
- Toy-making competition held on 12 March 1985. Twenty participants from four districts of U. P. took part in the competition.

#### *Field Office at Bangalore*

The following activities were carried out by the Field Office at Bangalore.

- Two four-day orientation programmes for Inspectors of schools on Aksharasena Programme in the context of universalisation of elementary education. Fifty-three Inspectors of Schools and Learning Centres participated in the programmes.
- Orientation programme on the preparation of educational toys organised at the Gujarati High School, Bangalore. Fifty primary school teachers attended the programme.
- State-level toy-making competition. Fifty-one entries were received for the competition from the pre-primary and primary school teachers.

#### *Field Office at Bhopal*

The Field Office at Bhopal has been engaged in several research, development and training activities. The major activities carried out during the year 1984-85 were as follows.

- State-level toy-making competition for pre-primary and primary school teachers. Fifty entries from 12 teachers were received for the competition.
- Development of Health Education Curriculum for Classes I to VIII for schools in Madhya Pradesh.
- State-level community singing programme held at the Government College of Education, Ujjain.

- **Development of Multi-level Self-learning Packages in Hindi for use in non-formal education centres in Madhya Pradesh.**

In addition to these, a study was conducted to examine the treatment given to the Scheduled Castes in nationalised text-books of Madhya Pradesh from Classes I to VIII. The Field Office also assisted the State Department of Education in screening the textbooks from the point of view of national unity, national integration and national cohesiveness.

Thirteen experimental projects on innovative practices developed by teachers were financed under the Experimental Projects Scheme of the Field Office. A research project in population education undertaken by the Field Office was completed during the year. Five publications, including one on the Educational Profile of Madhya Pradesh, were brought out by the Field Office.

#### *Field Office at Bhubaneswar*

The major activities carried out by the Field Office at Bhubaneswar are as follows.

- State-level toy-making competition. Forty-six entries from 44 primary and pre-primary teachers were received for the competition.
- Workshop on universalization of education at the primary stage organized from 20 to 23 February 1984. Thirty teachers participated in the workshops organized for evolving experimental projects related to the problems of UEE.
- Workshop on universal enrolment and retention of children in Tribal Sevashrams held from 12 to 15 March 1985. Thirty teachers from districts inhabited by tribals participated in the workshop.

Under the Experimental Projects Scheme, the Field Office had received 56 proposals out of which 25 were selected for giving financial assistance.

#### *Field Office at Calcutta*

The Field Office at Calcutta covers the States of Sikkim and West Bengal and the Union Territory of Andaman and Nicobar Islands. The Field Office organised the State-level toy-making competition for pre-primary and primary school teachers on 4 March 1985. It also organised a ten-day orientation course on Physical Education in collaboration with the Regional College of Education, Bhubaneswar. The Field Office had also assisted the different constituent units of the NCERT to organize several programmes in West Bengal.



### ***Field Office At Chandigarh***

The Office of the Field Adviser at Chandigarh serves the States of Haryana and Punjab and the Union Territory of Chandigarh. The following activities were carried out by the Field Office during 1984-85.

- State-level toy-making competition for the States of Haryana and Punjab and the Union Territory of Chandigarh.
- Workshop on strategies for universalization of elementary education held from 3 to 5 January 1985.
- Workshop on improving instruction at primary stage held from 11 to 13 March 1985. Fifty-five participants consisting of Education Officers and Head Masters and teachers of primary schools in Punjab, Haryana and Chandigarh attended the workshop.
- Workshop on Helping Scheduled Caste Students in Solving Educational and Vocational Problems held from 27 to 28 March 1985. Twenty-five participants attended this workshop.
- Workshop on Improving Enrolment of Scheduled Caste Students at Elementary Stage held on 30 and 31 March 1985.

Under the Experimental Projects Scheme, the Field Office had received 37 project proposals— 3 from Haryana, 12 from Punjab and 22 from Chandigarh. Out of these, nine projects from Chandigarh and five from Punjab were financed.

### ***Field Office at Gauhati***

The Field Office at Gauhati covers the States of Assam, Nagaland and Manipur and the Union Territory of Arunachal Pradesh. The major activities carried out were as follows.

- Workshop on non-formal education organized at Changlang, Arunachal Pradesh from 24 to 28 January, 1985. Twenty-three supervisors and instructors of non-formal education centres participated in the workshop.
- Workshop on teaching science through environmental approach held at Diphu in Assam from 25 February to 1 March 1985. Twenty-six primary teachers participated in the workshop.

### ***Field Office at Hyderabad***

A five-day workshop on doll-making and creative art was organized by the Field Office in collaboration with the Jawahar Bal Bhavan, Hyderabad. Thirty-five persons attended this workshop. Another pro-

gramme conducted was a two-day Orientation Course on Experimental Projects for Secondary School Teachers. The Department also assisted the State Department of Education in conducting a sample survey regarding monitoring of attendance under the programme of Universalization of Elementary Education.

#### *Field Office at Jaipur*

The Field Office organized several activities for the development and qualitative improvement of elementary and secondary education in Rajasthan. Prominent among the activities carried out were as follows.

- Orientation programme for the Shiksha Karmis organised at Social Welfare Research Centre at Tilonia from 7 to 10 May 1984.
- Seminar-cum-workshop on vocational subjects related to Commerce held from 17 to 20 September 1984 at Bhillwara.
- Workshop for developing teaching strategies for single teacher schools held at Udaipur from 26 to 31 March 1985. Twenty-nine persons participated in this workshop.
- State-level toy-making competition for pre-primary and primary school teachers.

#### *Field Office at Madras*

The Field Office at Madras covers Tamil Nadu and Pondicherry. The following were the major activities carried out by the Field Office during 1984-85.

- Workshop on universalization of elementary education held at Thucklay from 19 to 23 February 1985. Forty-one teachers participated in the workshop.
- Workshop on universalization of elementary education organised at Salem from 5 to 9 March 1985. Thirty-nine teachers participated in the programme.
- Workshop for preparing multiple choice items held from 4 to 8 February 1985. The workshop was organized for training SC/ST teachers in the methodology of preparing multiple-choice items.

The Field Office assisted the Directorate of School Education, Tamil Nadu, to review the syllabus in science and mathematics. It also assisted the Education Department of Pondicherry to develop instructional material for Class III under the project Primary Education Curriculum Renewal and to conduct training course for teachers in

**the context of NTS examination and training course in Biology organized by the Centre for Continuing Education in Pondicherry.**

*Field Office at Patna*

The significant activities undertaken by the Field Office at Patna during 1984-85 were as follows.

- Meeting of the Honorary Directors of Centres for Continuing Education and Officials of the Education Department of Bihar.
- Workshop for the preparation of teaching aids for pre-primary and primary education held from 4 to 6 February 1985.
- Workshop on vocationalisation of education at the +2 stage held from 12 to 14 March 1985.
- State-level toy-making competition for pre-primary and primary school teachers held on 4 March 1985.

*Field Office at Pune*

The Field Office at Pune caters to the needs of the State of Maharashtra and the Union Territory of Goa. The significant activities carried out are as follows:

- Six-day orientation course-cum-workshop for developing items for question bank in B. Ed. Course.
- State-level toy-making competition for pre-primary and primary school teachers.

The work under the research project Private Cost of Teacher Preparation in Teacher Training Institution continued during the year. Later on, the project was transferred to the NIE, NCERT, along with the transfer of the Principal Investigator to New Delhi.

*Field Office at Shillong*

The Field Office at Shillong covers the States of Meghalaya and Tripura and the Union Territory of Mizoram. The major activities carried out during the year under report are as follows.

- State-level toy-making competition held at the SIE, Tripura, and the SCERT, Mizoram.
- Workshop for development of suitable modalities for improving the instructional programme of single teacher primary schools held at Agartala from 4 to 9 March 1985. Nineteen teachers from single teacher schools participated in the workshop.

- Orientation programme on experimental/research project designs held at Shillong from 25 to 29 March 1985. Fifteen teachers attended the programme.

In addition to these, the Field Office prepared a report titled Ecology of Single Teacher Elementary Schools in Tripura: Modalities for Improving the Instructional Programmes. The Office also undertook a research project on educational development of SC/ST. The title of the project is Vocational Courses for Tribal Students at +2 Stage in Meghalaya.

#### *Field Office at Simla*

The Field Office assisted the Board of School Education, Himachal Pradesh, in adopting and updating textbooks in Geography for Classes VI to X. The Office organised a programme for developing teaching strategies in various subjects for the benefit of the elementary school children of the mobile gaddi tribals of Chamba District of Himachal Pradesh. It also organised programmes for development of approaches and methods of teaching new mathematics in Classes VI-VIII, for designing proposals for experimental projects under the Council's scheme of providing assistance to teachers to promote adoption of innovative instructional practices in secondary schools.

#### *Field Office for Jammu and Kashmir*

The Field Office for Jammu and Kashmir organised a workshop of teachers for developing instructional strategies at Jammu from 26 February to 2 March 1985. Thirty-five teachers and teacher-educators participated in this workshop. It organized another workshop for developing instructional materials for teachers at Srinagar from 12 to 15 March 1985. About 40 teacher-educators of Jammu and Kashmir participated in the workshop. The Field Office collaborated with the Board of School Education, Jammu and Kashmir, to organize a two-week workshop for the preparation of Model Question Papers in Mathematics, Chemistry, Physics and Biology in Class XI.

#### *Field Office at Trivandrum*

The Field Office at Trivandrum caters to the areas of the State of Kerala and the Union Territory of Lakshadweep. It organized a five-day orientation programme on compensatory education for the teachers of tribal areas in Wynad District. Thirty-two upper primary school teachers attended the programme. It also organized a five-day orientation programme on experimental projects. Thirty-four teachers from Calicut District participated in the programme. The State-level toy-making competition for pre-primary and primary school teachers was organized during the last week of February 1985.

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# 14

## Publications and Documentation

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**T**HE Publication Department and the Journals Cell of the NCERT look after the publication programmes in the Council. The Council's publications broadly fall under the following major categories:

- School textbooks, workbooks, prescribed supplementary readers.
- Supplementary reading materials for the age group 14-17 years.
- Teachers' guides, teachers' handbooks and other instructional materials.
- Research studies and monographs.
- Reports of educational conferences, proceedings of seminars pamphlets, booklets, brochures, folders, etc.
- Educational Journals.
- Anthology Journals.

The Department of Library, Documentation and Information looks after the documentation services besides providing the usual library services.

During the year, 251 publications of all categories were brought out. The break-up is given below.

<i>Category of Publication</i>	<i>No. of Titles</i>
First edition textbooks/workbooks/prescribed supplementary readers	16
Reprints of textbooks/workbooks/prescribed supplementary readers	139
Textbooks/workbooks for other government agencies	12
Research monographs/reports and other publications	51
Periodicals (Issues)	33
Total:	251

A list of these publications excluding the periodicals is given at the end of this chapter:

### **New Textbooks for the School Session 1985-86**

Following the decision to introduce new textbooks from the school session 1985 as part of the five-year textbook revision cycle, the NCERT collaborated with the Central Board of Secondary Education (CBSE) to develop new science and mathematics textbooks for Class IX. The NCERT also developed new textbooks in the languages and the social sciences for Classes IX-X and for Class XI. During the year under review, the Publication Department worked on the publication of these textbooks and brought out the following 15 textbooks out of the 16 new textbooks mentioned in the above table.

#### **CLASS IX**

1. Physics, Part I
2. Chemistry, Part I
3. Basic Biology, Part I, Vol. I
4. Mathematics, Part I

#### **CLASSES IX-X**

5. Citizen and the Government
6. Nagrik aur Shashan

#### **CLASS XI**

7. Abhinav Kavya Bharati (Hindi Core)
8. Abhinav Gadya Bharati (Hindi Core)

9. Abhinav Katha Bharati (Hindi Core)
10. Kavya Sanchayan (Hindi Elective)
11. Gadya Sanchayan (Hindi Elective)
12. Kahani Sanchayan (Hindi Elective)
13. I — The People — English Reader (Core)
14. Stories, Plays and Tales of Adventure — English Supplementary Reader (Core)
15. Sanskrit Sahitya Parichay

### **Anthology Series**

The NCERT has launched an anthology series which seeks not only to promote the reading habit and values among the young children but also to make readily accessible to them the thought and views of eminent thinkers, scientists, philosophers, reformers and national leaders to inculcate in them worthy values and attitudes.

The second book in this series entitled *Nehru: An Anthology for Young Readers*, edited by Dr. P.L. Malhotra, was released on 21 January 1985 by Prime Minister Shri Rajiv Gandhi. This book carries to youngsters the values and ideals that Nehru imbibed, preached and left behind, which the younger generation should carry into their hearts and minds.

### **Distribution**

As in the past years, the Council's publications continued to be distributed and sold through the Publications Division of the Ministry of Information and Broadcasting, who are the Council's National Distributors, and whose Sales Emporia situated at New Delhi, Calcutta, Bombay, Madras, Patna, Lucknow and Hyderabad cater to the needs of the entire country.

The Council's journals, however, were distributed and sold by the Council directly, as in the past years.

Besides the sale and distribution arrangements mentioned above, orders for the supply of Council's textbooks were also entertained directly from schools and other educational institutions in response to the Council's advertisement in leading newspapers all over India. During the year, a total number of 153 direct orders were received and complied with — 8 from Kendriya Vidyalayas, 11 from Sainik Schools, 24 from Central Schools for Tibetans, 81 from other schools and 29 from the schools and District Education Officers of Arunachal Pradesh. Textbooks were also supplied direct by the Council to the Directorate of Education, Sikkim, for the session 1985-86. In addition, 13 titles in English for Classes XI-XII were printed and made available by the Council through its National Distributors, to the Jammu and Kashmir Board of School Education.

### **Participation in Book Fairs/Exhibitions**

The NCERT exhibited its publications at the following book fairs/exhibitions:

Conference of Vice-Chancellors of all the Universities, Education Secretaries and Education Ministers of States, Vigyan Bhawan, New Delhi	Organized by the Ministry of Education, Government of India, May 1984
Second Children's Book Fair, India Gate, New Delhi	Organized by the National Book Trust in November 1984
National Teachers' Awards, Vigyan Bhawan, New Delhi	Organized by the Ministry of Education, Government of India on 5 September 1984
Pilot National Workshop on Textbooks and Reading Materials, NIE Auditorium, New Delhi	Organized by DESSH, NCERT in March 1985

The Council also participated in the following international book fairs/exhibitions by sending selected NCERT publications through the National Book Trust, India:

The London Book Fair	April, 1984
International Children's Book Exhibition, Ankara	April 1984
National Book Week, Port of Spain, Trinidad and Tobago	May 1984
16th International Book Fair, Sofia (Bulgaria)	June 1984
Malaysia Book Fair, 1984	September 1984
Second Zimbabwe International Book Fair and Exhibition	August-September 1984
16th Singapore Festival of Books and Book Fair	September 1984
36th Frankfurt Book Fair	October 1984
Exhibition of Indian Books in Mauritius	October 1984
International Book Fair, Belgrade	October 1984



Exhibition of Books in Khartoum (Sudan)	November 1984
Exhibition of Indian Books in Dhaka (Bangladesh)	November-December 1984
Third Middle East Book Fair, Behrain	December 1984
Special Exhibition of Indian Books in Port of Spain, Trinidad (West Indies)	January 1985
Seventeenth Cairo International Book Fair	January-February 1985
Exhibition of Indian Books in Kenya (Nairobi)	February-March 1985
Exhibition of Indian Books in Khartoum	February 1985
"Literasia" — First International Festival of Publications, Hongkong	March 1985

### Sale

During the year under review receipts from the sale of the NCERT publications amounted to Rs. 2,51,43,999.70. Publications worth \$ 431.23 and £ 3.00 were also sold to various parties abroad. In addition, the NCERT received an amount of U.S. \$ 241.82 from M/s Teiko-Ku-Shoin Co. Ltd. Japan on account of payment of royalty for the books entitled *The Story of Civilization* and *India on the Move*.

### Copyright Permission to State Governments and Other Agencies

A number of State-level agencies showed interest in the books brought out by the NCERT. The table given below shows the agencies to whom the Council gave permission during the year to adopt/adapt and publish its textbooks and other publications.

<i>Chandigarh</i> Director State Institute of Education Chandigarh	Permission was granted to translate the NCERT history textbook for Class X, entitled <i>The Story of Civilization</i> , Part II, into Punjabi
<i>Maharashtra</i> Director State Institute of Education, Pune	Permission was granted to print in Marathi for NFE centres for forest and tribal areas of Maharashtra
<i>Meghalaya</i> North Eastern Hill University, Shillong	Permission for adaptation of the material from the following textbooks was granted:

1. *Foundations of Political Science*
2. *Political System*
3. *Indian Democracy at Work*
4. *Indian Constitution and Government*

*Punjab*  
 Secretary  
 Punjab School  
 Education Board  
 S.A.S. Nagar  
 Mohali

Permission was granted for  
 adoption of NCERT textbook for  
 Classes I-X

### **Publication of Journals**

The major function of the Journals Cell is to produce target-oriented journals of the Council. The Journals Cell also undertakes some academic programmes and research activities. The journals brought out by the Journals Cell are mentioned below.

*Indian Educational Review* (a quarterly) is a research journal catering to the needs of educational research workers and scholars.

*Journal of Indian Education* (a bi-monthly) is directly addressed to secondary/senior secondary school teachers to help them improve their classroom teaching in particular and school climate in general.

*Bhartiya Adhunik Shiksha* (a quarterly in Hindi) is directly addressed to research workers as also secondary/senior secondary school teachers. Its emphasis is on solving classroom problems and on disseminating innovations in education.

*School Science* (a quarterly) aims at improving the quality of science teaching in secondary/senior secondary schools and highlights the findings of the latest experimentation carried out in different schools with the purpose of wider dissemination.

*The Primary Teacher* (a quarterly) is addressed to primary school teachers to help them solve their school problems and improve classroom teaching.

*Primary Shikshak* (a quarterly in Hindi) is primarily a Hindi version of *The Primary Teacher*.

Obviously, the basic purpose of these target-oriented journals is to improve the quality of school education at different levels besides disseminating the latest information in relevant areas/stages of edu-

cation. During the year under review the following issues of these journals were brought out:

- Indian Educational Review*: April 1984, July 1984 and October 1984
- Journal of Indian Education* : September 1983, November 1983, January 1984, March 1984, May 1984, July 1984 and September 1984
- Bhartiya Adhunik Shiksha*: October 1983, January 1984, April 1984
- School Science* : December 1982, March 1983, June 1983, September 1983, December 1983, March 1984, and June 1984
- The Primary Teacher* : January 1983, April 1983, July 1983, October 1983, January 1984, April 1984, July 1984 and October 1984
- Primary Shikshak* : October 1982, January 1983, April 1983, July 1983, October 1983

#### *Academic Programme (Developmental)*

With a view to improving the quality of the NCERT journals as also school magazines/educational journals, the Journals Cell has also undertaken the task of organizing seminar-cum-workshops in educational journalism. The following three programmes were organized during the year under review.

- Preliminary Meet of Resource Persons to discuss problems and Issues of Educational Journalism, organized in December 1984 at the NIE.
- Seminar-cum-workshop on Educational Journalism organized at Jaipur from 25 February to 1 March 1985.
- Seminar on Educational Journalism, organized at Gangtok from 25 to 31 March 1985.

It is proposed that as a result of such programmes a set of key personnel would be prepared to undertake orientation of teachers, teacher-educators and working journalists in education to help them improve the quality of their productions. The Journals Cell is engaged in producing two basic reference books on Educational Journalism,

namely, (a) A Handbook on Educational Journalism, and (b) A Year Book on Educational Journalism. The production of these books would go a long way in improving the quality of educational journals, school magazines, etc., at all levels.

### *Research Activities*

*Survey of Educational Journals.* Since there is no document available at any one source in the country where a complete list of educational journals being produced in the country is available, a comprehensive national survey of educational journals has been undertaken by the Journals Cell.

The idea behind these development and research programmes taken up by the Journals Cell is to create an awareness about the potentiality of educational journalism for bringing about quality improvement in school education. The findings of the proposed survey and the production of the handbook and the year book mentioned above would not only be normative in nature but would also suggest certain operational measures through which the quality of journals/school magazines could be enhanced. The project was initiated during 1984-85.

### **Documentation**

The Department of Library, Documentation and Information (DLDI) functions as an academic arm of the Council. Its main functions are to collect, organize and disseminate reading material with the following objectives:

- to cater to the needs of members of faculty of the National Institute of Education and scholars in the field of education from all over the country.
- to act as a clearing-house for educational information.
- to promote research and study.
- to improve quality of education through improved quality of library services in school and teacher training college libraries.

### *Collection*

Books as on 31 March 1984	+ 124208
Books added	
(a) By purchase	+ 3717
(b) By Gift	+ 364
(c) Bound periodicals accessioned	+ 136
(d) Books written off	- 12319

Total collection of books and periodicals as on 31 March 1985	116106
Periodicals subscribed and received on gift or exchange basis	372

### *Press Clippings*

The Department subscribes to 17 newspapers. During the year under review, 600 press clippings were taken from different newspapers, and these were indexed.

### *Publications*

The following publications were brought out by the Department:

- Accession List (Montly)
- Current Contents (Monthly)
- Select Abstracts on Teacher (An abstracted bibliography compiled on the request of National Commission on Teacher)
- Select Bibliography on Curriculum Development (abstracted)
- Select Bibliography on Educational Technology and Computer Assisted Instruction (Abstracted)

### *Circulation*

Membership during 1984-85	2182
Consultation facilities availed of by visiting scholars during 1984-85	360

### *Working Hours*

In order to meet ever increasing demand of users, the Library observed extended working hours from 9 a.m. to 8 p.m.

### *Training Programmes*

The Department organized the following in-service training programmes for librarians/incharge, school and teacher training college libraries, for improving and introducing innovative library services without extra manpower or material resources with a view to improving the quality of school education through improved library services and also inculcating healthy reading habits among school children:

- In-service Training Programme of Assistant Librarians working in School Libraries in the Union Territory of Pondicherry held at Pondicherry from 20 to 25 August 1984.
- Workshop on Development of Teacher Training College Libraries held at the RCE, Bhubaneswar, September 1984.

— Workshop on Development of Teacher Training College Libraries of Western Zone held at Bombay University, Bombay, from 18 to 22 January 1985.

### *Extension*

On the invitation of Directorate of Education, Delhi, the Head, DLDI, delivered eight lectures on various aspects of librarianship to the librarians working in school libraries in Delhi.

### *Development*

Meetings of the NIE and the RCEs librarians were held in May 1984 at Mysore and in December 1984 at Delhi, with a view to explore ways and means to increase cooperation and coordination between the libraries under the complex of NCERT so as to avoid duplication of effort and effect economy in expenditure and also develop indexing, abstracting and inter-library loan services on cooperative basis.

### **Book Exhibition**

A book exhibition was organized in December 1984 on the eve of National Seminar on Computer Software. About 5,000 books on computers, science and allied subjects were displayed.

## PUBLICATIONS BROUGHT OUT BY THE PUBLICATIONS DEPARTMENT OF THE NCERT DURING 1984-85

<i>S.No.</i>	<i>Title</i>	<i>Month of publication</i>	<i>No. of copies printed</i>
<b>Textbooks and Prescribed Supplementary Readers*</b>			
<i>CLASS I</i>			
Textbooks			
1.	<i>Bal Bharati, Bhag I (R.P.)</i>	January 1985	1,60,000
2.	<i>Mathematics for Primary Schools, Book I (R.P.)</i>	January 1985	75,000
Workbooks			
3.	<i>Workbook for Let's Learn English, Book I (S.S.) (R.P.)</i>	January 1985	25,000
<i>CLASS II</i>			
Textbooks			
4.	<i>Bal Bharati, Bhag II (R.P.)</i>	December 1984	1,15,000
5.	<i>Let's Learn English, Book II (S.S.) (R.P.)</i>	December 1984	1,45,000
6.	<i>Mathematics for Primary Schools, Book II (R.P.)</i>	January 1985	1,35,000
Workbooks			
7.	<i>Abhyas Pustika Bal Bharati, Bhag II (R.P.)</i>	January 1985	1,10,000

\* (S.S.) indicates Special Series and (R.P.) Reprints.

8. <i>Workbook for Let's Learn English, Book II (S.S.) (R.P.)</i>	January 1985	1,40,000
<b>CLASS III</b>		
<b>Textbooks</b>		
9. <i>Bal Bharati, Bhag III (R.P.)</i>	December 1984	95,000
10. <i>Let's Learn English, Book III (S.S.) (R.P.)</i>	December 1984	1,90,000
11. <i>Mathematics for Primary Schools, Book II (R.P.)</i>	January 1985	30,000
12. <i>Environmental Studies for Class III, Part I (R.P.)</i>	January 1985	25,000
13. <i>Paryavaran Adhyayan for Class III, Bhag I (R.P.)</i>	March 1985	35,000
14. <i>Environmental Studies for Class III, Part II (R.P.)</i>	January 1985	60,000
<b>Workbooks</b>		
15. <i>Abhyas Pustika Bal Bharati, Bhag III (R.P.)</i>	December 1984	60,000
16. <i>Workbook for Let's Learn English, Book III (S.S.) (R.P.)</i>	December 1984	1,35,000
<b>CLASS IV</b>		
<b>Textbooks</b>		
17. <i>Bal Bharati, Bhag IV (R.P.)</i>	December 1984	1,05,000
18. <i>English Reader, Book I (S.S.) (R.P.)</i>	December 1984	1,50,000
19. <i>Mathematics for Primary Schools, Book IV (R.P.)</i>	January 1985	60,000
20. <i>Paryavaran Adhyayan for Class IV, Bagh I (R.P.)</i>	March 1985	45,000
21. <i>Environmental Studies for Class IV, Part I (R.P.)</i>	January 1985	45,000
<b>Workbooks</b>		
22. <i>Abhyas Pustika Bal Bharati, Bhag IV (R.P.)</i>	December 1984	65,000
22. <i>Workbook for English Reader, Book I (S.S.) (R.P.)</i>	December 1984	1,70,000
<b>Prescribed Supplementary Reader</b>		
24. <i>Read for Pleasure, Book I (R.P.)</i>	January 1985	45,000
<b>CLASS V</b>		
<b>Textbooks</b>		
25. <i>Bal Bharati, Bhag V (R.P.)</i>	December 1984	1,20,000
26. <i>Swasti, Bhag I (R.P.)</i>	April 1984	48,000
27. <i>Swasti, Bhag I (R.P.)</i>	January 1985	15,000
28. <i>English Reader, Book II (S.S.) (R.P.)</i>	December 1984	1,17,000
29. <i>Mathematics for Primary Schools,</i>	January 1985	35,000
30. <i>India and the World (R.P.)</i>	December 1984	35,000
31. <i>Learning Science through Environment, Part III (R.P.)</i>	January 1985	30,000
32. <i>Abhyas Pustika Bal Bharati, Bhag V (R.P.)</i>	December 1984	1,00,000
33. <i>Abhyas Pustika Swasti, Bhag I (R.P.)</i>	January 1985	15,000
34. <i>Workbook for English Reader, Book II (S.S.) (R.P.)</i>	December 1984	1,07,000

**Prescribed Supplementary Reader**

35. <i>Read for Pleasure III</i> (R.P.)	January 1985	45,000
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**CLASS VI****Textbooks**

36. <i>Bharati</i> , Bhag I (R.P.)	April 1984	56,000
37. <i>Bharati</i> , Bhag I (R.P.)	December 1984	60,000
38. <i>Swasti</i> , Bhag II (R.P.)	January 1985	20,000
39. <i>English Reader</i> , Book III (S.S.) (R.P.)	January 1985	1,25,000
40. <i>Mathematics for Middle Schools</i> , Book I (R.P.)	December 1984	65,000
41. <i>Lands and People</i> , Part I (R.P.)	April 1984	68,000
42. <i>Lands and People</i> , Part I (R.P.)	December 1984	20,000
43. <i>Desh Aur Unke Niwasi</i> , Bhag I (R.P.)	March 1985	15,000
44. <i>Itihas Aur Nagrik Shastra</i> , Bhag I (R.P.)	March 1985	20,000
45. <i>Learning Science</i> , Part I (R.P.)	January 1985	55,000
46. <i>Aao Vigyan Seekhein</i> , Bhag I (R.P.)	January 1985	6,000

**Workbooks**

47. <i>Abhyas Pustika Swasti</i> , Bhag II (R.P.)	April 1984	29,000
48. <i>Workbook for English Reader</i> , Book II (S.S.) (R.P.)	December 1984	75,000

**Prescribed Supplementary Readers**

49. <i>Sankshipt Ramayan</i> (R.P.)	December 1984	35,000
50. <i>Read for Pleasure III</i> (R.P.)	April 1984	53,000
51. <i>Read for Pleasure III</i> (R.P.)	January 1985	30,000

**CLASS VII****Textbooks**

52. <i>Bharati</i> , Bhag II (R.P.)	December 1984	30,000
53. <i>English Reader</i> , Book IV (S.S.) (R.P.)	April 1984	78,000
54. <i>English Reader</i> , Book IV (S.S.) (R.P.)	March 1985	45,000
55. <i>Mathematics for Middle Schools</i> , Book II, Part I (R.P.)	December 1984	55,000
56. <i>Mathematics for Middle Schools</i> , Book II, Part I (R.P.)	January 1985	40,000
57. <i>Mathematics for Middle Schools</i> , Book II, Part II (R.P.)	December 1984	50,000
58. <i>Ganit Madhyamik Schoolon ke liye</i> , Pustak II, Bhag II (R.P.)	January 1985	10,000
59. <i>History and Civics</i> , Part II (R.P.)	April 1984	31,000
60. <i>History and Civics</i> , Part II (R.P.)	January 1985	30,000
61. <i>Lands and People</i> , Part II (R.P.)	March 1985	45,000
62. <i>Learning Science</i> , Part II (R.P.)	January 1985	50,000

**Prescribed Supplementary Readers**

63. <i>Sankshipt Mahabharat</i> (R.P.)	March 1985	15,000
64. <i>Steps to English — 2 Supplementary Reader</i> (New Book)	September 1984	3,000
65. <i>Read for Pleasure IV</i> (R.P.)	January 1985	30,000

**CLASS VIII****Textbooks**

66. <i>Bharati</i> , Bhag III (R.P.)	December 1984	30,000
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67. <i>Swasti</i> , Bhag IV (R.P.)	April 1984	48,000
68. <i>English Reader</i> , Book V (S.S.) (R.P.)	March 1985	37,000
69. <i>Mathematics for Middle Schools</i> , Book III, Part I (R.P.)	December 1984	55,000
70. <i>Mathematics for Middle Schools</i> , Book III, Part II (R.P.)	December 1984	52,000
71. <i>History and Civics</i> , Part III (R.P.)	January 1985	35,000
72. <i>Lands and People</i> , Part III (R.P.)	December 1984	30,000
73. <i>Learning Science</i> , Part III (R.P.)	April 1984	49,000

### Prescribed Supplementary Readers

74. <i>Trividha</i> (R.P.)	December 1984	20,000
75. <i>Read for Pleasure V</i> (R.P.)	January 1985	10,000
76. <i>Jeevan Aur Vigyan</i> (R.P.)	February 1985	15,000

### CLASS IX

#### Textbooks

77. <i>Vigyan</i> , Bhag I (R.P.)	April 1984	15,000
78. <i>Physics</i> , Part I (New Book)	January 1985	1,00,000
79. <i>Chemistry</i> , Part I (New Book)	January 1985	1,00,000
80. <i>Basic Biology</i> , Part I, No. I (New Book)	February 1985	1,00,000
81. <i>Mathematics</i> (New Book)	January 1985	1,00,000
82. <i>The Story of Civilization</i> , Vol. I (R.P.)	March 1985	36,000
83. <i>Sabhyata Ki Kahani</i> , Bhag I (R.P.)	March 1985	50,000
84. <i>Man and Environment</i> (R.P.)	April 1984	35,000
85. <i>Man and Environment</i> (R.P.)	March 1985	34,000
86. <i>Manushya aur Vatavaran</i> (R.P.)	April 1984	15,000
87. <i>Manushya aur Vatavaran</i> (R.P.)	March 1985	26,000

### CLASSES IX-X

88. <i>Citizen and Government</i> (New Book)	March 1985	80,000
89. <i>Nagrik Aur Shashan</i> (New Book)	February 1985	1,00,000

### CLASS X

#### Textbooks

90. <i>Science</i> , Part II (R.P.)	February 1985	9,000
91. <i>Mathematics</i> , Part II (R.P.)	January 1985	40,000
92. <i>Sabhyata Ki Kahani</i> , Bhag II (R.P.)	January 1985	35,000
93. <i>India on the Move</i> (R.P.)	May 1984	50,000
94. <i>Bharat Vikas Ki Or</i> (R.P.)	April 1984	15,000

### CLASS XI

#### Textbooks

95. <i>Abhinav Kavya Bharati</i> (New Book)	December 1984	80,000
96. <i>Abhinav Katha Bharati</i> (New Book)	December 1984	80,000
97. <i>Abhinav Gadya Bharati</i> (New Book)	January 1985	80,000
98. <i>Kavya Sanchayan</i> (New Book)	January 1985	36,000
99. <i>Gadya Sanchayan</i> (New Book)	December 1984	36,000
100. <i>Kahani Sanchayan</i> (New Book)	January 1985	30,000
101. <i>I — The People</i> (English Reader) (Core) (New Book)	December 1984	1,40,000
102. <i>Stories, Plays and Tales of Adventure</i> (English Supplementary Reader) (New Book)	January 1985	1,40,000
103. <i>Sanskrit Sahitya Parichay</i> (New Book)	February 1985	13,000
104. <i>Rangini</i> (R.P.)	February 1985	11,000

105. <i>Bhautik Vigyan</i> , Bhag I (R.P.)	March 1985	3,500
106. <i>Chemistry</i> , Part I (R.P.)	March 1985	32,000
107. <i>Rasayan Vigyan</i> , Bhag I (R.P.)	March 1985	3,000
108. <i>Biology</i> , Vol. I (R.P.)	February 1985	19,000
109. <i>Mathematics</i> , Book I (R.P.)	February 1985	40,000
110. <i>Mathematics</i> , Book II (R.P.)	February 1985	50,000
111. <i>Prachin Bharat</i> (R.P.)	January 1985	24,000
112. <i>Medieval India</i> , Part I (R.P.)	February 1985	19,000
113. <i>Madhyakalin Bharat</i> , Bhag I (R.P.)	March 1985	13,000
114. <i>Foundations of Political Science</i> (R.P.)	March 1985	17,000
115. <i>Rajnitik Vigyan Ke Aadhar</i> (R.P.)	March 1985	18,000
116. <i>Political System</i> (R.P.)	March 1985	10,000
117. <i>Rajnitik Vyavastha</i> (R.P.)	February 1985	18,000
118. <i>Understanding Society</i> (R.P.)	February 1985	4,000
119. <i>Bharat Ka Samanya Bhugol</i> , Bhag I (R.P.)	January 1985	10,000

### CLASSES XI-XII

120. <i>Vyakaran Saurbham</i> (R.P.)	February 1985	12,000
121. <i>Physics</i> (R.P.)	April 1984	20,000
122. <i>Physics</i> (R.P.)	January 1985	46,000

### CLASS XII

123. <i>Nibandh Bharati</i> (R.P.)	January 1985	8,000
124. <i>Vividha</i> (R.P.)	January 1985	8,000
125. <i>Hindi Sahitya Ka Parichayatmak Itihas</i> (R.P.)	April 1984	13,000
126. <i>Sahitya Shastra Parichay</i> (R.P.)	March 1985	5,000
127. <i>A Course in Written English</i> (R.P.)	January 1985	16,000
128. <i>Sanskrit Kavya Tarangini</i> (R.P.)	February 1985	5,000
129. <i>Chemistry</i> , Part II (R.P.)	March 1985	24,000
130. <i>Biology</i> , Part II, Vol. I (R.P.)	April 1984	6,000
131. <i>Biology</i> , Part II, Vol. I (R.P.)	February 1985	15,000
132. <i>Biology</i> , Part II, Vol. II (R.P.)	March 1985	13,000
133. <i>Mathematics</i> , Book III (R.P.)	April 1984	22,000
134. <i>Mathematics</i> , Book III (R.P.)	March 1985	26,000
135. <i>Mathematics</i> , Book IV (R.P.)	April 1984	22,000
136. <i>Mathematics</i> , Book IV (R.P.)	February 1985	27,000
137. <i>Medieval India</i> , Part II (R.P.)	March 1985	14,000
138. <i>Modern India</i> (R.P.)	March 1985	19,000
139. <i>Adhunik Bharat</i> (R.P.)	March 1985	4,000
140. <i>Indian Constitution and the Government</i> (R.P.)	March 1985	13,000
141. <i>National Accounting</i> (R.P.)	April 1984	9,000
142. <i>National Accounting</i> (R.P.)	January 1985	7,000
143. <i>Arthik Sidhant Ka Parichay</i> (R.P.)	January 1985	5,000
144. <i>Human and Economic Geography</i> (R.P.)	May 1984	8,000
145. <i>Manav Evam Arthik Bhugol</i> (R.P.)	January 1985	25,000
146. <i>Geography of India</i> , Part II (R.P.)	March 1985	8,000
147. <i>Child Psychology</i> (R.P.)	April 1984	2,000
148. <i>Social Change</i> (New Book)	May 1984	3,000

### Urdu Textbooks

#### CLASS VII

149. <i>Hisab</i> (Mathematics), Book II, Part I (R.P.)	June 1984	3,000
150. <i>Hisab</i> (Mathematics), Book II, Part II (R.P.)	June 1984	3,000

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|--|-----------|-------|
| 151. <i>Science Seekhna</i> (Learning Science),<br>Part II (R.P.)          | June 1984 | 3,000 |
| 152. <i>Munalik Aur Unke Bashinde</i> (Lands<br>and People) Part II (R.P.) | June 1984 | 3,000 |

### CLASS VIII

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|---|-----------|-------|
| 153. <i>Tareekh Aur Ilme-e-Shahriyat</i> (History<br>and Civics), Part III (R.P.) | June 1984 | 5,000 |
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### CLASS X

- |  |           |       |
|--|-----------|-------|
| 154. <i>Hindustan Taraqqi Ki Rah Par</i> (India<br>on the Move) (R.P.)   | June 1984 | 600   |
| 155. <i>Tahzeeb Ki Kahani</i> (Story of Civilization),<br>Vol. II (R.P.) | June 1984 | 1,000 |

### Textbooks/Workbooks for Other States/Organizations

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|--|---------------|--------|
| 156. <i>Stories and Fables</i> , English<br>Supplementary Reader for the Open<br>School (R.P.) | October 1984  | 5,000  |
| 157. <i>English Reader</i> , Book I for the Open<br>School (R.P.)                              | October 1984  | 5,000  |
| 158. <i>English Reader</i> , Book II for the Open<br>School (R.P.)                             | October 1984  | 3,000  |
| 159. <i>Arun Bharati</i> , Bhag I (R.P.)   | January 1985  | 20,000 |
| 160. <i>Arun Bharati</i> , Bhag II (R.P.)  | May 1984      | 11,000 |
| 161. <i>Arun Bharati</i> , Bhag II (R.P.)  | January 1985  | 17,000 |
| 162. <i>Abhyas Pustika Arun Bharati</i> , Bhag II (R.P.)                                       | November 1984 | 17,000 |
| 163. <i>New Dawn Reader I</i> (First Edition)  | January 1985  | 35,000 |
| 164. <i>Workbook for New Dawn Reader I</i><br>(First Edition)                                  | May 1984      | 35,000 |
| 165. <i>Supplementary Reader for New Dawn<br/>Reader I</i> (First Edition)                     | July 1984     | 35,000 |
| 166. <i>English Reader</i> , Book VI (S.S.) (R.P.)   | February 1985 | 11,000 |
| 167. <i>Saora Combolln</i> (First Edition)   | December 1984 | 5,000  |

### Supplementary Readers

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|---|---------------|-------|
| 168. <i>Brave Boys of the Past</i>                            | May 1984      | 5,000 |
| 169. <i>Rural Development in India</i>                        | April 1984    | 2,000 |
| 170. <i>Woman and Life</i>                                    | June 1984     | 3,000 |
| 171. <i>Nehru: An Anthology for Young Readers</i>             | November 1984 | 6,000 |
| 172. <i>Citizenship Development</i>                           | February 1985 | 3,000 |
| 173. <i>Gautam Buddha</i>                                     | February 1985 | 2,000 |
| 174. <i>The Hidden Gold</i>                                   | March 1985    | 5,000 |
| 175. <i>Bachchen Ke Fani</i>                                  | December 1984 | 2,000 |
| 176. <i>Hindi Katha Lekhikaon Ki Pratinidhi<br/>Kahaniyan</i> | December 1984 | 5,000 |
| 177. <i>Keeron Ki Jindagi</i>                                 | March 1985    | 2,000 |

### Research Monographs and Other Publications

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|---|------------|-------|
| 178. <i>Third National Survey of Secondary<br/>Teacher Education in India</i>           | April 1984 | 1,000 |
| 179. <i>Reflections on Curriculum</i>   | April 1984 | 3,000 |
| 180. <i>Status of Women through Teaching of<br/>Mathematics — a Teacher's Handbook</i>  | April 1984 | 2,000 |
| 181. <i>Status of Women through Curriculum<br/>Secondary and Higher Secondary Stage</i> | April 1984 | 2,000 |

182. <i>Relative Effectiveness of Variations in Microteaching Components — an Experimental Study</i>	April 1984	1,000
183. <i>Yogasanas — a Teacher's Guide</i>	May 1984	5,000
184. <i>Vocational Education at the +2 Stage</i>	May 1984	10,000
185. <i>Progress of Elementary Education in Andhra Pradesh — Impacts of Demographic Factors</i>	May 1984	1,000
186. <i>Handbook of Practical Work in Geography for Teachers of +2 Stage</i>	May 1984	1,000
187. <i>Developmental Norms of Indian Children 2½ to 5 Years — Part Three</i>	May 1984	1,000
188. <i>Reading to Learn</i>	June 1984	5,000
189. <i>Curriculum and Evaluation</i>	June 1984	1,000
190. <i>Environmental Studies, Part II Class V Teacher's Guide</i>	September 1984	5,000
191. <i>NCERT Regulations (Promulgated with effect from 12 May 1971)</i>	October 1984	1,000
192. <i>Content-cum-Methodology of Teaching Mathematics for B.Ed. Students</i>	December 1984	1,000
193. <i>Development of a Model for Forecasting Teacher Manpower Requirement</i>	December 1984	1,000
194. <i>Concept and Measurement of Language Comprehensibility — Emerging Trends</i>	December 1984	2,000
195. <i>Weightage Given to Different Areas of School Curriculum in Various States</i>	December 1984	2,000
196. <i>Annual Report, 1983-84</i>	December 1984	1,600
197. <i>A Guide for Nursery School Teachers</i>	December 1984	5,000
198. <i>Projectile Motion — Unit X — Physics</i>	September 1984	2,000
199. <i>Applied Mathematics and Kinetics — Teaching Unit in Physics</i>	September 1984	2,000
200. <i>Measurement — Teaching Unit in Physics</i>	September 1984	2,000
201. <i>Laws of Motion — Teaching Unit in Physics</i>	September 1984	2,000
202. <i>Scalars and Vectors — Teaching Unit in Physics</i>	September 1984	2,000
203. <i>Post-Secondary Pursuit of the Students of Vocational Spectrum of Studies (1979-82)</i>	September 1984	1,000
204. <i>Annual Report (Hindi), 1983-84</i>	December 1984	1,000
205. <i>An Annotated Bibliography in the Comprehensibility of Language</i>	December 1984	1,000
206. <i>Contemporary Issues in Public Examinations</i>	January 1985	1,000
207. <i>Audit Report, 1983-84</i>	March 1985	500
208. <i>Saral Hindi Vyakaran Aur Rachna</i>	March 1985	5,000
209. <i>Student Teaching and Evaluation</i>	February 1985	2,000
210. <i>Fluid Dynamics — Teaching Unit in Physics</i>	July 1984	2,000
211. <i>Thermodynamics II — Teaching Unit in Physics</i>	February 1985	2,000
212. <i>Radiation — Teaching Unit in Physics</i>	March 1985	2,000
213. <i>Surface Tension — Teaching Unit in Physics</i>	February 1985	2,000
214. <i>Astronomy — Teaching Unit in Physics</i>	February 1985	2,000
215. <i>Electricity II — Teaching Unit in Physics</i>	March 1985	2,000
216. <i>Impact of Midday Meals Programme</i>	March 1985	5,000

217. <i>Work, Energy and Power — Teaching Unit in Physics</i>	February 1985	2.000
218. <i>Impulse and Momentum — Teaching Unit in Physics</i>	February 1985	2.000

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## International Relations and Assistance

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**T**HE NCERT has been acting as a major agency for implementing the provisions of bilateral cultural exchange programmes that are signed by the Government of India with other countries in the field of school education. It has been undertaking UNESCO/APEID/UNDP sponsored projects/programmes and has been arranging meetings with delegations/experts from other countries for exchange of ideas in the field of school education and sponsoring the Council's faculty members for participation in international seminars/workshops/symposia/meetings/training programmes. It has also been undertaking training programmes for foreign nationals under attachment programmes in the fields of school education, teacher education and educational technology.

The International Relations Unit at the NCERT is responsible for coordination of the above-mentioned activities/programmes of the NCERT. The Unit also acts as the secretariat of the National Development Group (NDG) for Educational Innovations and as a clearing-house agency for furnishing information on school education in India to different countries and international agencies.

## **Bilateral Cultural Exchange Programmes**

A four-member Soviet delegation led by Mr. V.I. Konkin, First Deputy Chairman, the USSR State Committee on Vocational and Technical Training, visited the NCERT from 2-11 April 1984 to study the vocational and technical training under item 40 of the Indo-USSR Cultural Exchange Programme for 1983-84.

A three-member delegation led by Dr. Brahm Parkash, Lecturer, DESM, NCERT, visited the German Democratic Republic from 5 March 1985 for a period of two weeks to study the design and development of science equipment, educational technology and vocational education under item 23 of the Indo-GDR Cultural Exchange Programme for 1982-84.

## **Visits of Delegations/Educationists from Other Countries**

The International Relations Unit organized the following visits of the delegations/experts from other countries:

1. A six-member delegation of senior Directors of Education from Sri Lanka visited the NCERT on 9 April 1984. The delegation discussed with the faculty members the programmes and activities of the NCERT.
2. A team of three UNESCO consultants (Dr. G. Francies, Dr. V.V. Kohjbiné and Miss V. Pooviah) visited the NCERT from 17 May to 22 May 1984 for an appraisal of joint project on International Education Programme.
3. Fourteen Asian trainees under the IIEP Training Programmes organized by NIEPA visited the NCERT on 29 June 1984 for interaction with the faculty of the NCERT.
4. Mr. Mohammed Ajan, a UNESCO Fellow from Afghanistan, attended an attachment programme on Science Education from 9 July to 9 August 1984.
5. Sixteen Social Studies Curriculum Supervisors and Consultants from the USA visited the NCERT on 10 July 1984 and were apprised of the programmes and activities of the Council.
6. Prof. Fumihike Shinohara, Gakugei University, Tokyo (Japan), Expert in Computer Education, visited the NCERT from 26 July to 1 August 1984 in connection with the Computer Education Programme in the DESM.
7. H.E. Mr. Choi Tae Bok, Education Minister, DPR Korea, along with the members of his delegation, visited the NCERT on 10 August 1984. The members of the delegation were acquainted with the programmes/activities of the Council.

8. Mr. Abdullah Kahdim Hussain, Education Adviser, Ministry of Education, Government of Pakistan, visited the NCERT from 6 to 8 August 1984. He had discussions with the faculty members of the Department of Teacher Education, Workshop Department and the Central Institute of Educational Technology about the programmes undertaken by these Departments.
9. An eight-member delegation from Vietnam (Hanoi) visited the NCERT from 5 to 7 September 1984 under the Study Visit Programme in Vocational Education at the School level.
10. Two Vietnamese educators visited the NCERT on an Attachment Programme in Population Education for four weeks from 17 September 1984 to 13 October 1984.
11. Dr. Prem Kasaju, Specialist in Development Research in Education, UNESCO, Bangkok, visited the NCERT for consultation on the design and operation of the Joint Innovative Project on Raising Achievement Level at Primary Education.
12. An eight-member delegation led by Mr Nguyen Canh Town, Vice Minister of Education, Government of Vietnam, visited India from 6-18 October 1984. The main objective of the visit of the delegation to India was to study India's experience in training primary school teachers, both pre-service and in-service, and apply these experiences for the improvement of teachers' training in Vietnam. As part of the programme of the delegation in India, the NCERT organized a four-day workshop on Teacher Training Methodologies. The delegation also visited a few primary teachers' training institutions in and around Pune and Aurangabad.
13. A three-member delegation from the Socialist Republic of Vietnam visited the NCERT under UNESCO Mobile Team in Special Education Programme. The team was acquainted with various programmes being undertaken by the NCERT in the area of Special Education. They also visited some schools working in the area of Special Education in Delhi.
14. A nine-member Chinese delegation visited the NCERT on 5 November 1984. They were briefed about the programmes of the NCERT particularly in the area of Graphics and other related problems of Book Production.
15. A high-level delegation from the German Democratic Republic comprising the Minister for State and four other delegates visited the NCERT on 20 November 1984 and discussed var-



ious facets of the educational system in GDR and the educational system in India. A meeting with the Heads of the Departments of the NIE was arranged to exchange information and thoughts on various programmes and issues of mutual interest in the field of education.

16. Two Vietnamese educators visited the NCERT on an Attachment Programme in Population Education on 17 September 1984.
17. Dr. M.C. Pant, UNESCO specialist in Science and Technology Education, Bangkok, visited the NCERT on 25 and 26 October 1984 and discussed various aspects of school education in India. He also discussed some APEID activities.
18. Mr Habibullah Hussaini, Director of Students Affairs, Department of Vocational Education, Afghanistan, visited the NCERT under APEID Special Technical Cooperation Programme for an Attachment/Internship Programme from 19 November 1984 to 21 December 1984. He visited some of the important centres offering vocational courses.
19. Mr. Roger Usberschlag, President of the International Federation of Modern Schools' Trends — Freinet's Pedagogy and Honorary Schools Inspector, French Ministry of Education, Government of France, visited the NCERT and had discussion with the Director and the Joint Director and the Heads of the Departments of the NIE. He gave a talk on the Recent Developments in School Education in France and Freinet Pedagogy under the auspices of ERIC.
20. A group of officers of the Bangladesh Ministry of Education visited the NCERT from 13 January to 21 January 1985 to discuss problems of local level planning, management and supervision of the Universal Primary Education Programme. The group also visited the Regional College of Education, Ajmer, on 20-21 January 1985 in this connection.
21. The participants under the NIEPA's International Diploma Programme in Educational Planning and Administration visited the NCERT on 24 January 1985. The participants were acquainted with the structure and functions of the NCERT.
22. Deputy Education Minister of Iran visited the NCERT on 14 February 1985. Discussions were held on the problems related to school education, teachers' training programmes and development of curriculum and instructional materials.

23. A three-member delegation from the Commission of Higher Education, Ethiopia, visited NCERT on 15 February 1985. The delegation was acquainted with the programmes/activities of the Council. They also exchanged views and experiences with the faculty of the NCERT.
24. Mr Yousuf Mohammed Falu, UNESCO Fellow from Maldives, attended an Attachment Programme in the area of Population Education from 13 February 1985 to 8 March 1985.
25. Mr Fazili Hak, Deputy Education Minister, Afghanistan, visited the NCERT on 16 March 1985. He had discussions about the various programmes of the NCERT. The matter regarding possible mutual cooperation in education was also discussed.
26. Prof. Jee Khatena, Professor and Head, Department of Educational Psychology, Mississippi State University, visited the NCERT from 5 February to 10 March 1985. He also acted as Consultant to the National Seminar on Identification and Development of Talent organized by the Department of Educational Psychology, Counselling and Guidance, NCERT.
27. Mr. Jeremy Greenland, Programme Officer (Education), Aga Khan Foundation, Geneva, visited the NCERT on 26 March 1985 to discuss the recent developments in India in the field of education, particularly in the area of pre-school and elementary education.

#### **Deputation of Faculty Members of Council to Programmes Organised Abroad**

1. Prof. A.N. Maheshwari, Regional College of Education, Mysore, attended a meeting on "Exchanging Experience on Pilot Project on Science and Technology in General Education" held in Beijing, China, from 5 to 7 April 1984 under the auspices of UNESCO.
2. Shri M. Sita Ramaswamy, Librarian, Regional College of Education, Mysore, participated in UNESCO Attachment Programme in Documentation and Information Services for Population Education held at Bangkok from 4 to 29 June 1984.
3. Prof. R.M. Kalra, International Relations Unit, NCERT, participated in the Inter-Country Operational Workshop on Reduced Instructional Time (RIT) Project in the context of Universalization of Primary Education held at Bangkok from 19 to 29 June 1984.

4. Prof. B.S. Parakh, Head, DESSH, participated in the Regional Workshop for the Development of Packages of Adequate Learning Requirement in Population Education (as a Resource Person) at Chainmai, Thailand, from 10 to 30 July 1984.
5. Dr. V. Kesavan, Reader, RCE, Mysore, participated in the APEID Technical Working Group meeting on Continuing Education of Science Teachers from 17 to 27 July 1984.
6. Dr. R.P. Gupta, Reader, DESM, participated in the workshop on Courseware Development in Micro-Computer in Science and Mathematics Education held in Malaysia from 6 to 30 August 1984.
7. Shir H.N. Gupta, Field Adviser, NCERT, Rajasthan, Jaipur, participated in the Regional Training Workshop for the Development of Materials for Mathematics Education in Asia and the Pacific, organized by the National Institute for Educational Research, Japan, in collaboration with ACEID, UNESCO, Bangkok, from 30 October to 17 November 1984.
8. Dr. D. Lahiry, Reader, DESM, NCERT, participated in the APEID Study Group Meeting on Pupil Evaluation in Science at Penang, Malaysia, held from 9-18 January 1985.
9. Prof. M.M. Chaudhri, Joint Director, CIET, participated as Resource Person in the NDG National Activities in Educational Innovation in Male, Maldives, from 6 to 21 February 1985.
10. Prof. B.S. Parakh, Head, DESSH, participated in the second Regional Workshop on the Study on Elementary School Curriculum in Asia and the Pacific, held at Tokyo from 16 January to 7 February 1985.

#### **Projects sponsored by UNESCO**

During the year 1984-85 the Council signed contracts with UNESCO for undertaking the following projects/studies:

1. National Training Workshop on Health and Nutrition Education at Primary Level.
2. Preparation of document titled "Environmental Education A Process for Pre-Service Teacher Training Curriculum Development".
3. Case Studies of Projects relating to the Identification and Nurturing of Scientific Talent among Young People.

4. Advanced Level Workshop on Universalization of Primary Education at National and Sub-National Levels.
5. National Workshop on Interdisciplinary Basis for the Preparation of Teaching Materials using the Guidelines developed by the Regional Design Workshops.
6. National Pilot Workshop on Textbooks and Reading Material.
7. Retraining of Primary Education Personnel — Advanced Level Workshop to cope with Drop-out and Repetitions Problems.
8. Regional Training Workshop of Out-of-School Scientific Activities Extension Courses 1985.
9. Source Book in Non-Formal Environmental Education.
10. Improvement of Renewal of Teaching Methods in Educational Establishments — Regional Training Workshop on the Use of Educational Technologies by Teacher (1985) Preparation of a Multi-Media Kit on One-Teacher Schools by NCERT.
11. Preparation of a paper on (a) Strategies in Organizing the Teaching of Technology as part of General Education and (b) Teacher Preparation (Pre-Service and In-Service) for Teaching Technology as part of General Education.

### **Activities under NDG**

The National Development Group (NDG) for educational innovations constitutes, within a member-country, the key structure of the Asian Programmes for Educational Innovations for Development (APEID) for promoting educational innovations in the country, for coordinating various inter-country activities and for participating in the various programmes of the APEID. The Secretary, Department of Education, Ministry of Human Resource Development, Government of India, acts as the *ex-officio* Chairman of the NDG and the Director, NCERT, acts as the *ex-officio* Member-Secretary of the NDG.

The National Development Group for educational innovations has been engaged in activities which would stimulate and coordinate national efforts in educational innovations. The NDG in India has provided a forum for educational innovators in the country to meet and exchange their experiences, promoting coordination of activities carried out by the associated centres of APEID in the country, facilitating inter-country exchange of innovative experiences in cooperation with the Asian Centre for Educational Innovations and Development (ACEID) in furthering the objectives of the APEID.

The NDG Secretariat located in the International Relations Unit of the NCERT has been mainly responsible for undertaking, conducting, and coordinating programmes/activities which would help in efficient discharge of roles and functions of the NDG. The NDG has taken several important decisions in addition to making the NDG broad-based. During the year 1984, 11 new associated centres of the APEID were selected in India.

During 1984, the NDG Secretariat started the publication of the quarterly newsletter titled "Educational Innovation" with the objective of ensuring a smooth flow of information on educational innovations among the associated centres of the APEID and other institutions both at the national and international levels.

The International Relations Unit has also been organizing national and regional seminars on educational innovations. A national meet of the programme coordinators of the associated centres of the APEID in India was convened on 12 and 13 December 1984. A regional seminar of educational innovators in the Southern region was held at Mysore from 25-28 February 1985. Twenty-one educationists/educational innovators from Andhra Pradesh, Karnataka, Kerala and Tamil Nadu attended this seminar. The discussions during the seminar centred round innovative programmes/projects in technical education, health and nutrition education, non-formal education, general education and agricultural education and adult education. Besides these, one session was devoted for discussion on inter-sectoral cooperation and coordination in the field of educational innovations for development.

In addition to these, the work on the preparation of two directories and one inventory was initiated. This included the directory of experts/specialists in educational innovations, directory of institutions engaged in educational innovations and inventories of educational innovations for development.

### **Supply of Information/Materials to Other Countries**

During 1984-85, educational materials were sent to Indian embassies in Malaysia, Netherlands, DPR Korea, USA, Pakistan, Bahrain, Iran, France and Caracas and to the High Commissions in Zimbabwe, New Zealand and Canada. The Council also supplied information/material related to Indian education to the governments of Pakistan, Nicosia, Japan, Canada, USA, Maldives, Iran and Mauritius. The Council remains in close touch with various UNESCO Office/organizations for exchange of material and information. Information/material on Indian education system was also supplied to the International Bureau of Education, UNESCO, Geneva; UNESCO Regional Office for Education in Asia and the Pacific, Bangkok, and UNESCO Headquarters, Paris.

## **Other Activities**

As part of its general activities/programmes related to international relations in education, the International Relations Unit organized a symposium on United Nations and Education on the occasion of the 39th anniversary of the United Nations on 24 October 1984. Several papers related to the United Nations and education were presented at the symposium by eminent educationists. A workshop on Profiles of Japan was organized by the Japan Cultural and Information Centre of Embassy of Japan in collaboration with the International Relations Unit on 2 March 1985. The International Relations Unit also initiated work on the establishment of an International Educational Documentation and Resource Centre (IEDRC) in collaboration with the Department of Library, Documentation and Information of the NCERT.

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## Administrative and Welfare Activities and Finance

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THE NCERT secretariat continued to perform its functions of house-keeping in accordance with the rules, regulations and procedures of the Council.

### **Administrative and Welfare Activities**

The academic departments in the Council were reorganized in April 1984. In order to have greater coordination many of the departments, units and cells in the NIE were merged to form functional and viable departments. The secretariat provided all the support for this reorganization including redeployment of academic and non-academic staff and reallocation of space to the newly constituted departments.

As a measure of staff welfare the Council secretariat continued to provide facilities for sports and games.

The Fourth Inter-Regional Colleges of Education and NIE Staff Tournament was organized at the Regional College of Education, Bhubaneswar, from 3 to 6 January 1985. More than 150 players took part in these games. The tournament was a great success.

The Council has paid Rs 1.05 crore to the CPWD for the construction of 104 staff quarters in the campus. An amount of Rs. 16,40,300 has also been paid for the construction of a shopping complex in the campus. It is expected that these works will be started soon. The construction of a lift and 10 more rooms in the NIE Guest House has started.

Shri K.C. Pant, Union Minister of Education, inaugurated the newly renovated conference hall in the Library Block on 27 May 1985.

Particular attention was paid during the year for proper maintenance and beautification of the NIE campus with the cooperation of CPWD and the Municipal Corporation of Delhi.

The LIC Group Insurance scheme was extended to Category 'A' officers of the Council with effect from 1 April 1984. Thus all the categories of staff of the Council are now covered by the scheme.

The Internal Work Study Unit undertook the following studies during 1984-85:

1. Study for the Assessment of Requirements of Safaiwalas for the NIE Guest House.
2. Study on the Problems of Physical Verification of Stock in the Council and Creation of Posts of Stock Verifiers.
3. Study for Assessment of the Requirements of Administrative Staff of Regional College of Education, Bhopal.
4. Study of the Requirements of Hindi Posts in the NCERT including those for Hindi Cell for the Promotion of the Use of Hindi.
5. Study for the Assessment of Need for Additional Posts of Senior and Junior Gestetner Operators in Different Departments/Units.
6. Study for Creation of One Post of Operator-cum-Machine Compositor in the DTA (now merged with CIET) for Tradal Printing Machine.
7. Study for Assessment of a Proposal of the Post of Hostel Clerk (Stores) for NIE Guest House.
8. Study of the Regional College of Education, Mysore, for the Assessment of Work-force in the Administrative/Ministerial Cadres, Library Staff and Chowkidars.
9. Study to Assess the Requirements of Chowkidars at NCERT Headquarters.
10. Study on the Requirements of Additional Posts of Peons at the NCERT Headquarters.

### **Activities of Hindi Cell**

The Hindi Cell of the NCERT accomplished during 1984-85 the tasks, as mentioned below, for the progressive use of Hindi for official purposes.



### *Development and Distribution of Material*

The Cell procured the following books and distributed them among various departments and units in the Council:

1. Manak Hindi Kosh-28 copies
2. Compilation of Orders regarding Use of Hindi — 75 copies
3. Devnagari Type-writing Parshikshak — 20 copies

### *Survey*

The Cell conducted a survey to determine the winner department of the NCERT for the running shield for the maximum use of Hindi in the official work. The survey included two questionnaires in which information was to be filled on 22 points.

### *Consultation and Guidance*

The Cell helped and advised academic departments and administrative sections in writing notings and letters in Hindi and translating the material from English to Hindi.

Consultancy and guidance was provided in translating the rules and regulations from English to Hindi of children's literature award scheme which is organized every year by the Department of Education in Social Sciences and Humanities.

### *Recruitment of the Staff*

Recruitment Rules have been framed for the post of Assistant Public Relations Officer (Hindi) in the Council. (ii) One Translator has been recruited in the Council. (iii) Recruitment Rules for the posts of Hindi Officer and Hindi Assistant have been prepared.

### *Typing Work*

During the year under review Hindi Cell typed approximately 1359 pages and cut 684 stencils in Hindi.

### *Translation Work*

Two hundred pages were translated from English into Hindi besides the Hindi material available in the annual diary of the Council.

### *Scheme for Award*

A running shield and a certificate of appreciation are awarded to the Department/Unit of the Council which makes the maximum use of Hindi in official work during a year. The shield and the certificate were awarded to Establishment Section IV on 6 May 1985. For further strengthening the spirit of use of Hindi one more shield has been instituted separately for academic departments. The rules for competition have also been forwarded to all departments.

Prof. Incharge Hindi Cell and one Deputy Secretary participated as representatives of the Council in the workshop on Official Language organized by Rajbhasha Sansthan, New Delhi.

The Cell works as a liaison office between the Ministry of Home Affairs and Ministry of Education.

Kshetrasalah Shikshashodh is being registered as the telegraphic address of the Field Office of the Council. Shikshashodh is registered telegraphic address of the Council.

Hindi Cell convened three quarterly meetings of the Official Language Implementation Committee.

The Cell purchased books worth Rs. 1,351 to maintain a separate library of English-Hindi equivalents.

Eight employees of the Council were trained in Hindi typing during the year 1984-85. Six programmes undertaken by the Cell during 1984-85 have been proposed to be continued during 1985-86. With the completion of these programmes, the Council employees will attain efficiency in Hindi typing and stenography, Hindi noting and drafting. Also Hindi-speaking employees will be trained through correspondence courses. A separate library file will be maintained for the compilation of English-Hindi equivalents, sentences, phrases etc.

A survey of the work done in Hindi in the Council will be undertaken on the basis of which arrangements will be made to furnish information regularly to the Ministries of Human Resources Development and Home Affairs (Official Language Department).

### **Finance**

Consolidated Receipts and Payments Account of the NCERT for the year 1984-85 is given in the following table.

## Consolidated Receipts and Payments Accounts for the Year 1984-85

<i>Receipts</i>	<i>Amount (Rs)</i>	<i>Payments</i>	<i>Amount (Rs)</i>
Opening Balance	1,93,55,114.00	<i>Pay of Officers</i>	1,25,41,245.00
Cash in Bank	1,93,45,514.00	Non-Plan	1,19,95,003.00
Add. Funds in Transit	9,600.00	Plan	5,46,242.00
<i>Grants received from Ministry of Education for Budgetary Expenditure</i>	12,72,34,716.00	<i>Pay of Establishment</i>	97,71,031.00
Non-Plan	9,74,32,734.00	Non-Plan	92,73,903.00
Plan	2,98,01,982.00	Plan	4,97,128.00
Grants and Refunds pertaining to Specific Projects (list attached)	6,59,33,632.00	<i>Allowances and Honoraria</i>	3,22,61,673.00
Council Receipts		Non-Plan	3,04,98,264.00
Rent of the Council Buildings	11,89,579.00	Plan	17,63,409.00
Interest on Loan/Short-term Investment	3,24,529.00	<i>Travelling Allowances</i>	7,50,093.00
Recovery of Overpayments	10,96,390.00	Non-Plan	7,04,287.00
Interest on GPF/CPF Investment	49,58,766.00	Plan	45,806.00
Int SB A/c GPF/CPF a/c	49,22,163.00	<i>Other Charges</i>	1,37,32,350.00
	36,603.00	Non-Plan	1,29,51,824.00
		Plan	7,80,526.00
		<i>Scholarship/Fellowship</i>	11,96,432.00
		Non-Plan	7,15,555.00
		Plan	4,80,877.00
		<i>Programme</i>	5,58,76,748.00
		Non-Plan	4,82,31,578.00
		Plan	76,45,170.00
		<i>Equipment and Furniture</i>	52,78,126.00
		Non-Plan	10,94,543.00
		Plan	41,83,583.00

<i>Receipts</i>	<i>Amount (Rs)</i>	<i>Payments</i>	<i>Amount (Rs)</i>
Sale Proceeds of Books and Periodicals	2,45,50,531.00	<i>Land &amp; Building</i>	166,13,465.00
Sale of Science Kits	3,33,357.00	Non-Plan	64,48,682.00
Fees and Charges	5,18,923.00	Plan	101,64,783.00
Leave Salary and Pension Contributions.	1,72,987.00	<i>Other Payments</i>	
Royalty	25,589.00	Pension and Gratuity	15,16,018.00
CGHS	41,219.00	(Including FAs and RCEs)	
Miscellaneous Receipts (344,24,139.00)	12,12,269.00	Advertisement	5,25,594.00
		<i>CGHS</i>	
		Non-Plan	5,21,022.00
		Plan	42,294.00
		House Rent	11,718.00
		Audit Fee	82,455.00
		Interest on GPF/Int. and Employer's Share on CPF	30,00,000.00
		Leave Salary and Pension Contribution	42,353.00
		Deposit-linked Insurance Scheme	10,000.00
		<i>Miscellaneous Payments</i>	63,816.00
		Non-Plan	
		Brokerage to SBI for Purchase of Security	52,226.00
		Plan	11,590.00
		Expenditure on Specific Projects (list attached)	4,95,69,453.00

<i>Receipts</i>	<i>Amount (Rs)</i>	<i>Payments</i>	<i>Amount (Rs)</i>
<i>Recoveries and Payment of Loans and Advances</i>			
Motor-car/Scooter Advance	1,43,962.00	Motor-car/Scooter Advance	3,19,134.00
Other Conveyance Advance	48,445.00	Other Conveyance Advance	60,222.00
House-building Advance	14,40,433.00	House-building Advance	36,73,354.00
Fan Advance	1,262.00	Fan Advance	500.00
Festival Advance	2,20,411.00	Festival Advance	2,13,951.00
TA/Pay on Transfer	36,080.00	TA/Pay on transfer	91,312.00
Flood/Drought/Natural Calamity Advance	1,725.00	Flood/Drought/Natural Calamity Advance	1,04,300.00
Warm Clothing Advance	686.00	Warm Clothing Advance	—
Permanent Advance (19,00,726.00)	7,722.00	Permanent Advance (44,72,873.00)	10,100.00
<i>Funds and CDS Account</i>			
GPF	77,12,775.00	GPF C.A/C SB A/C	22,41,350.00 32,91,439.00
CPF	28,78,438.00	CPF C.A/C SB A/C	8,13,609.00 6,64,437.00
CDS (105,92,934.00)	1,721.00	CDS (70,36,539.00)	25,704.00
<i>Deposits</i>			
Earnest Money and Security Deposit (relating to Science Kits 22,05,000)	22,82,006.00	Earnest Money and Security Deposit	1,07,462.00

<i>Receipts</i>	<i>Amount (Rs)</i>	<i>Payments</i>	<i>Amount (Rs)</i>
Cautlon Money	1,28,808.00	Cautlon Money	78,375.00
Other Deposits (RCEs) (28,82,328.00)	4,71,514.00	Other Deposits (601,178.00)	4,15,341.00
Group Insurance Scheme	3,93,539.00	Group Insurance Scheme	1,49,061.00
GPF/CPF Investment	43,83,952.00	GPF/CPF Investment (SB Ref a/c)	72,32,800.00
C. A/C (-) 278848			
SB a/c 4662800			
Short-term Investment	7,15,00,000.00	Short-term Investment	7,15,00,000.00
Balance as on 1.4.1984 in SB a/c (SB R&P a/c)	1,24,000.00	Balance in SB a/c R&P a/c as on 31.3.1985	27,39,927.00
Transfer of GPF/CPF T39 SB a/c	91,57,426.00	Transfer to GPF/CPF SB a/c	91,57,426.00
Suspense	8,297.00	Suspense	1,27,707.00
<i>Remittances</i>			
GPF/CPF Remittance	1,38,502.00	GPF/CPF Remittance	1,20,989.00
PLI/LIC Remittance	86,726.00	PLI/LIC Remittance	98,867.00
Miscellaneous Remittance	51,895.00	Miscellaneous Remittance	41,882.00
Sub Office Remittance	38,36,677.00	Sub Office Remittance	35,73,452.00
Income Tax Remittance	5,65,951.00	Income Tax Remittance	5,64,316.00
Periodical Remittance	11,86,12,492.00	Periodical Remittance	11,88,44,892.00
Less Funds in Transit	9,600.00	Less in Transit	2,42,000.00
Death Relief Scheme	31,741.00	Death Relief Scheme	33,253.00

<i>Receipts</i>	<i>Amount (Rs)</i>	<i>Payments</i>	<i>Amount (Rs)</i>
CTS Remittance (1235,09,667.00)	1,95,283.00	CTS remittance (1232,32,269.00)	1,96,618.00
			<u>4296,55,666.00</u>
		C/o Closing Balance	417,44,804.00
		Cash in Hand and Bank	41502804.00
		Funds in Transit	242000.00
Total	<u>47,14,00,470.00</u>	Total	<u>47,14,00,470.00</u>

**Consolidated Receipt and Payment Accounts of Specific Grants during the Year 1984-85**

		<i>Receipts (Rs.)</i>	<i>Payments (Rs.)</i>
1.	UNICEF — Special Funds	10,83,938.38	8,39,821.67
2.	Ministry of Education — For Population Education Programme		
	Grant	142,00,000.00	
	Refunds	10,116.55	
3.	Ministry of Education — Rs. 20 lakhs received in 1979-80 — Vocational Education Programme	3,51,965.53	11,75,096.20
4.	Ministry of Education — Community Singing Programme		
	Grant	40,00,000.00	
	Refunds	12,30,503.65	
5.	UNESCO — Mobile Training Team of Science Education under Japanese Fund in Trust Workshop. Cont 507/363-3	5,518.76	
6.	CSIR — For payment to Smt. Zeenat Rasheed		
	Grant	18,200.00	18,502.83
	Refunds	994.05	
7.	UNESCO — Study on Universalization of Education at Primary level. Cont. 354/3	45,457.23	39,652.05
8.	UNESCO — Upgrading Basic Science related to Vocational Education Regional Training Course in Maths	—	30,146.62
9.	UNESCO — Experimental model for Pre-service Training of Social Environmental Education in School. Con. 517/570/3 24.5.1983	17,427.40	900.00
10.	UNESCO — Field Implementation and Evaluation Material on Contemporary World Problems		3,431.67
11.	UNESCO — Sponsored National Workshop on Integrated Education of the Visually Handicapped	321.50	1,200.00



		<i>Receipts (Rs.)</i>	<i>Payments (Rs.)</i>
12.	Ministry of Education and Culture — Comparative Study of Teachers Profiles in their Rural and Urban Setting in Elementary Education. Rs. 10,000 + 6,000	1,401.00	1,504.85
13.	Department of Electronics of G.O.I. for Computer Literacy Programme Grant Refunds	50,56,000.00 1,88,459.10	52,44,459.10 34,64,201.90
14.	UNESCO — Backwardness of Girls in 8 Selected States Refunds	7,742.04	
15.	UNESCO — Pilot Project on Technology in General Education Grants Refunds	90,525.00 19,845.18	1,10,370.18 90,525.00
16.	USAID — Midday meals	50,390.00	
17.	UNESCO — Preparation of Experimental Model for In-service Training of Teachers and Supervisors in Environmental Education for Primary School	650.40	2,000.00
18.	UNESCO — Workshop on Urban Marginal Area — under Environmental Education Pilot Project. Cont. 517.287	12,783.75	28,190.00
19.	UNESCO — National Training-cum-Production Workshop on Health and Nutrition Education for Primary level I and II Phase (Cont. 136.748/1)	28,918.44	49,880.50
20.	UNESCO — National Case study on Recent Development and New Trends in Teaching and Learning Methods and Teachings (515.190.3)	10,650.00	7,098.00
21.	ICSSR — Research Abstracts for Journals		2,000.00

	<i>Receipts (Rs.)</i>	<i>Payments (Rs.)</i>
22. UNESCO — Attachment Programme in the Area of Science Education for Mr. Mohamed Ajaza from Afghanistan	900.00	—
23. UNESCO — Study Visit Programme of a Mobile Team in Special Education from the Socialist Republic of Vienna. Received \$ 1000 on 13.9.1984	1,478.72	1,100.00
24. APIAD — Advanced Level Workshop on Universalization on Primary Education at National — Subnational Level	15,405.00	38,198.00
25. Ministry of Family Welfare		2,56,512.00
26. Ministry of Education and Culture — Workshop on Curricular Preparation sponsored by United States Education Foundation in India, New Delhi	2,100.00	—
27. UNESCO — Environmental Education-Pilot Project on Problem of Urban Marginal Areas. Con. 51.4.289	25,889.97	—
28. UGC Received UGC award to UGC Teachers Fellowship to Dr. (Smt.) Hemlata Singh	9,123.00	6,000.00
29. Ministry of Education — for CIET for INSAT Programme	392,92,284.00	265,74,282.21
30. ICSSR — DD Nayars Fellowship	—	356.49
31. UNESCO — National Workshop on Childhood Care Education. Con. 507/352	—	627.97
32. UNESCO — Regional Seminar on the Clearance of Formal and Non-formal Population Education Programme held at Bangkok	879.25	—
33. UNESCO — National Study on Work Experience in General Education in India	1,833.77	6,480.00
34. UNESCO — Retraining Educational Personnel Advanced-Level Workshop to cope up with Deportation and Repatriation Profile S 3500	45,811.52	18,270.00

	<i>Receipts (Rs.)</i>	<i>Payments (Rs.)</i>
35. UNESCO — Mobile Team in Specific Education National Workshop. Cont. 117-2/5/507-362	40,533.50	
36. UNESCO — Pilot National Workshop on Textbook and Reading Material. \$ 2500	32,722.51	
37. UNESCO — Support to National Institution Innovative Graphs to organize National Workshop on Inter-discipline basic for the Preparation of Teaching Material Laboratory the Guidance developed by the Regional Design Workshop — UNESCO. Cont. 116.433	19,762.84	
38. UNESCO — National Workshop on Improvement of Chemistry — Curriculum and Teaching Materials. Cont: 507/305.3/83 (45) 49	4,500.00	
39. UNESCO — Preparation of a 300-page Document entitled Environmental Education Process for Pre-Service Teachers Training Curriculum Development under. Cont. 105/139-4.	6,100.00	
40. UNESCO — Attachment Programme in Population Education for Yusuf Mohammed — Maldives	2,500.00	455.00
41. UNESCO — Regional Guide for Identification and Illumination of Sex-Stereotype in and from Education Programme and Text Programme		145.65
	<u>659,33,632.04</u>	<u>495,69,452.81</u>
Rounded off to:	<u>659,33,632.00</u>	<u>495,69,453.00</u>

## *Appendix A*

### **Scheme of Assistance to Professional Educational Organizations**

**T**HE National Council of Educational Research and Training has always recognized the importance of voluntary effort both in the field of education and educational innovations. The intimate contact of professional educational organizations with institutions and teachers/educators is a good catalyst for educational transformation in the country. Keeping this in view, the NCERT has been operating a scheme of financial assistance to professional educational organizations for the last few years on the lines of the scheme which was prevalent in the Ministry of Education and Social Welfare.

The major details of the scheme as they exist at present are as follows:

#### **Objectives**

The following are the major objectives of the scheme.

- (i) To sustain and promote voluntary effort for the improvement of education especially school education.
- (ii) To encourage quality journals of a professional nature which could help in disseminating educational innovations.
- (iii) To promote extension work in education through voluntary organizations.

#### **Conditions of Eligibility**

##### *Organizations*

- (i) A Professional Educational Organization (PEO) would be eligible for getting NCERT grant under this scheme only if it is:
  - (a) a society registered under the Societies Registration Act (Act XXI of 1860); or
  - (b) a public trust registered under law for the time being in force; or
  - (c) an official organization of repute engaged in the conduct and promotion of educational activities.

An organization engaged by a State Government or a local body or established under an act of a State legislature or a resolution of State Government shall not be entitled to assistance under this scheme.

- (ii) It should normally be operating at national/regional level for the improvement of school education. Only in exceptional cases, subject to funds permitting, shall applications from PEOs working at only State level be entertained.
- (iii) It should be open to all citizens of India without distinction of region, race, caste, creed, sex or language.
- (iv) It should be recognized where such recognition is required for securing grant from the State Government.
- (v) It should have a properly constituted managing body with its powers, duties and responsibilities clearly defined and laid down in a written constitution.

- (vi) It should ordinarily have been engaged for a minimum period of one year prior to the date of request for a grant-in-aid under the scheme.
- (vii) It should have at least 50 members on roll on the date of application.
- (viii) It should not be run for profit to any individual or a body of individuals.

#### *Activities*

- (i) Under this scheme the following types of activities shall be normally supported by the NCERT:
  - (a) Annual conferences of the PEOs provided they have a definite theme related to some national educational issues about which the NCERT may be concerned and/or which support the NCERT's work and may be useful in the furtherance of the NCERT's objectives.
  - (b) Production of educational literature including professional journals but excluding textual materials.
  - (c) Educational exhibitions if they have a bearing on educational innovations or on other educational developments of topical nature.
- (ii) No grant shall ordinarily be given for the following:
  - (a) Seminars, workshops especially of the type that can be organized or are being organized by the NCERT.
  - (b) Research Projects.

#### **Magnitude of Grant**

In order to avoid over-dependence of the organisations on the NCERT the financial assistance under this scheme shall be given only on a sharing basis as follows:

- (i) The grant-in-aid from the NCERT shall not normally exceed 60 per cent of the expenditure on an activity during that year.
- (ii) The remaining 40 per cent of the expenditure will be managed by the organization from other sources, like grants received from other organizations or income from sale, subscription or advertisements in the case of journals. If, however, the income from these sources exceeds 40 per cent of the expenditure, the Council's share shall be accordingly reduced.
- (iii) If, by chance, the Council's grant during a year exceeds the admissible amount of 60 per cent of actual expenditure or the short-fall of the same from other sources, whichever is less, the excess would become recoverable or adjustable in the next year's grant.

Example:

If the actual expenditure on an activity is Rs. 1,700 while the NCERT's grant is Rs. 1,500 and the income from other sources is Rs. 900.

- (a) 60 per cent of the expenditure = Rs. 1,020
- (b) Short-fall of expenditure from other sources (1700 — 900) = Rs. 800

Recoverable amount

[Grant minus lesser of (a) and (b)] = Rs. 1,500 — 800 = Rs. 700

#### **Procedure for Applying**

- (i) The PEOs should submit their applications in the prescribed application forms given in the Annexure complete in all respects and in duplicate.
- (ii) Separate applications should be submitted for each programme or activity.

- (iii) Each application should be accompanied by the following documents:
- Prospectus of the institution/organization or a brief description of its objects and activities.
  - Constitution of the organization.
  - A copy of the latest available annual report.
  - In the case of requests for grants for the publication of journals/other materials, copies of previous issues of the journals/previous publications.
  - The audited statement of accounts of the organization for the previous year along with a utilization certificate in the following form duly signed by the President/Secretary of the Association and the Auditors (Chartered Accountants etc.).

"I have verified the accounts of \_\_\_\_\_  
 In respect of the grant of Rs. \_\_\_\_\_ sanctioned by the  
 National Council of Educational Research and Training for \_\_\_\_\_  
 \_\_\_\_\_with the help of the vouchers and cer-  
 tify that they are correct and the grant has been utilized for the purpose  
 for which it was sanctioned."

A separate utilization certificate in the same form and/or statement of expenditure exclusively for the activity for which the grant has been given.

No grant can be sanctioned without the documents mentioned above.

#### General

- In the case of grants for publication of journals it would be obligatory on a PEO to carry one advertisement of the NCERT without charges.
- In the case of grants for annual conferences the organization should associate some representatives of the NCERT with the conference.
- The institution/organization shall maintain a record of all assets acquired wholly or substantially out of the grant. Such assets shall not be disposed of, encumbered with or utilized for the purpose other than those for which the grant was given without prior sanction of the NCERT. Should the institution/organization cease to exist at any time such properties shall revert to the National Council of Educational Research and Training.
- The accounts and supporting documents shall be open to a test check by the Comptroller and Auditor-General of India at his discretion.
- When the NCERT has reasons to believe that sanctioned money is not being utilized for approved purposes, the grants may be recovered and payment of further grants stopped.
- The organization must exercise utmost economy in the working of the programmes approved and assisted by the NCERT.
- Application for grant should be submitted to the Secretary, NCERT.

#### Grants given by the NCERT to Professional Educational Organizations during the Year 1984-85 for the Publication of Journals

Sl. No.	Name of the Organization	Title of the Journal	Amount sanctioned
1.	Integrated Education, Rehabilitation and Research Centre for Handicapped S-601, School Block, Shakarpur, Delhi-92	Indian Journal of Integrated Education	Rs. 4,000

2.	Association for Improvement of Mathematics Teaching, 25, Fern Road, Calcutta	<i>Indian Journal of Integrated Education</i>	Rs. 4,000
3.	S.I.T.U. Council of Educational Research, Madras	<i>Experiments in Education</i>	Rs. 3,000
4.	English Language Teachers Association of India, 3-First Trust Link Street, Mandavelipakkam, Madras-28	<i>The Journal of English Language Teaching</i>	Rs. 5,000
5.	Association of Young Researchers in Education, 51, Mumfordganj, Allahabad	<i>AYRE</i>	Rs. 1,470
6.	Indian Association for Pre-School Education Sikandra Road, New Delhi-1	<i>BALAK</i>	Rs. 2,500
7.	Indian Physics Association, Tata Institute of Fundamental Research, Bombay	<i>Physics News</i>	Rs. 5,000
8.	All India Science Teachers Association, C/o Deptt. of Pre-School Education, NCERT, New Delhi-16	<i>Vigyan Shikshak</i>	Rs. 3,000
9.	Indian Psychometric and Educational Research Association, University of Patna, Patna	<i>Indian Journal of Psychometric and Education</i>	Rs. 5,000
10.	Sri Nrittya Kalasamskritham, C-8, Green Park (Main) New Delhi-16	<i>Conference Souvenir</i>	Rs. 5,000

**Grants given by the NCERT to Professional Educational Organizations for Organizing Conferences during the Year 1984-85.**

<i>Sl. No.</i>	<i>Name of the Organization</i>	<i>Purpose</i>	<i>Amount</i>
1.	Indian Academy of Applied Psychology, Deptt. of Humanities and Social Sciences, IIT New Delhi-16	For Annual Conference	Rs. 5,000
2.	Indian Academy of Social Sciences, Allahabad	For 1983-84 IX Conference For 1984-85 X Conference	Rs. 5,000 Rs. 5,000
3.	Indian Environmental Society, School of Planning and Architecture, P.O. Box 7033, Indraprastha H.P.O., New Delhi-2	International Conference	Rs. 5,000
4.	Friends at Archives Group, National Archives of India, Janpath, New Delhi-1	National Conference	Rs. 5,000
5.	Indian Association of Physics Teachers, Physics Deptt. IIT, Kanpur	First Conference	Rs. 5,000
6.	Indian Association of Educational Planning and Administration, 17-B, Sri Aurobindo Marg, New Delhi-16	Second Conference	Rs. 5,000

7. Indian Association for Pre-School Education Sikandra Road, New Delhi-1	For 20th Conference	Rs. 4,000
8. Integrated Education, Rehabilitation and Research Centre for Handicapped S-601, Shakarpur, Delhi	For Third Conference	Rs. 4,000
9. Association for Improvement of Mathematics Teachers, 25, Fern Road, Calcutta	For 14th Conference	Rs. 5,000



**Appendix B**  
**Location of Field Advisers in the States**

		<i>Telephone No.</i>	
		<i>Office</i>	<i>Residence</i>
1.	Field Adviser (NCERT) 3-6-69/B/7, Avantl Nagar Bashir Bagh Hyderabad	Andhra Pradesh 35878	227207
2.	Field Adviser (NCERT) Zoo Road Gauhati	Assam, Arunachal Pradesh, Manipur and Nagaland 87003	—
3.	Field Adviser (NCERT) Kankarbag Patrakar Nagar Patna	Bihar 53243	53243
4.	Field Adviser (NCERT) Kothi No. 23, Sector-8A Chandigarh	Chandigarh and Punjab 26923	26923
5.	Field Adviser (NCERT) 1-B, Chandra Colony behind Law College Ahmedabad	Gujarat, Dadra and Nagar Haveli 445992	445992
6.	Field Adviser (NCERT) Laxmi Bhawan Near Sanjauli Chowk Simla	Himachal Pradesh 6914	6914
7.	Field Adviser (NCERT) 57, Rawalpora Srinagar-190005	Jammu and Kashmir —	—
8.	Field Adviser (NCERT) 621, Eighty Feet Road 11 Block, Rajajinagar Bangalore	Karnataka 350006	350006
9.	Field Adviser (NCERT) SIE Building, Pooja Pura Trivandrum	Kerala and Lakshadweep 64389	64948
10.	Field Adviser (NCERT) MIG-161, Saraswati Nagar Jawahar Chowk Bhopal	Madhya Pradesh 64465	76014
11.	Field Adviser (NCERT) 128/2, Kothrud Karve Road Pune	Maharashtra and Goa, Daman and Diu 447314	447314

12.	Field Adviser (NCERT) Boyce Road, Laitumkhra Shillong	Meghalaya Mizoram and Tripura	26317	—
13.	Field Adviser (NCERT) Homi Bhabha Hostel RCE Campus Bhubaneswar	Orissa	50516	52224
14.	Field Adviser (NCERT) A-33, Prabhu Marg (West) Tilak Nagar Jaipur	Rajasthan	40265	40265
15.	Field Adviser (NCERT) 32, Hindi Prachar Sabha Street, T. Nagar Madras	Tamil Nadu and Pondicherry	443414	72939
16.	Field Adviser (NCERT) 555-E, Mumfordganj Allahabad	Uttar Pradesh	52212	2131
17.	Field Adviser (NCERT) P-23, CIT Road Scheme-55 Calcutta	West Bengal, Andaman and Nicobar Islands and Sikkim	245310	361510

## Appendix C

### The NCERT Committees for the Year 1984-85

#### MEMBERS OF THE NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING (GENERAL BODY)

(Under Rule 3 of the Rules of the Council)

- |  |   |
|--|---|
| (i) The Minister for Education<br>President, <i>ex-officio</i>   | 1. Mrs. Sheila Kaul<br>Union Minister of State for Education<br>Shastri Bhavan<br>New Delhi   |
| (ii) Chairman of the University<br>Grants Commission <i>ex-officio</i>   | 2. Dr. (Smt.) Madhuri R. Shah<br>Chairman<br>University Grants Commission<br>Bahadur Shah Zafar Marg<br>New Delhi-1   |
| (iii) Secretary to the Ministry of<br>Education, <i>ex-officio</i>   | 3. Smt. Seria Grewal<br>Secretary<br>Ministry of Education,<br>Shastri Bhawan<br>New Delhi-1  |
| (iv) Four Vice-Chancellors of<br>Universities, one from each region,<br>nominated by the Government<br>of India  | 4. Shri Kanti Chaudhary<br>Vice-Chancellor<br>Rani Durgavati Vishwavidyalaya<br>Jabalpur<br>5. Prof. M.N. Das<br>Vice-Chancellor<br>Utkal University, Vani Vihar<br>Bhubaneswar<br>6. Dr. R.S. Mishra<br>Vice-Chancellor<br>Lucknow University<br>Lucknow<br>7. Prof. V.C. Kulandai Swamy<br>Vice-Chancellor<br>Anna University<br>Madras |
| (v) One representative of each State<br>Government and Union Territory<br>with a legislature, who shall be the<br>Education Minister of the State/<br>Union Territory (or his representa-<br>tive) and in the case of Delhi the<br>Chief Executive Councilllor, Delhi<br>(or his representative) | 8. Education Minister<br>Andhra Pradesh<br>Hyderabad<br>9. Education Minister<br>Assam<br>Dispur<br>10. Education Minister<br>Bihar<br>Patna<br>11. Education Minister<br>Gujarat<br>Ahmedabad  |

12. Education Minister  
Haryana  
Chandigarh
13. Education Minister  
Himachal Pradesh  
Shimla
14. Education Minister  
Jammu and Kashmir  
Srinagar
15. Education Minister  
Kerala  
Trivandrum
16. Education Minister  
Madhya Pradesh  
Bhopal
17. Education Minister  
Maharashtra  
Bombay
18. Education Minister  
Manipur  
Imphal
19. Education Minister  
Meghalaya  
Shillong
20. Education Minister  
Karnataka  
Bangalore
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  
Government of Tripura  
Agartala

27. Education Minister  
Sikkim  
Gangtok
28. Education Minister  
Uttar Pradesh  
Lucknow
29. Education Minister  
West Bengal  
Calcutta
30. The Chief Executive Councillor  
Delhi Administration  
Delhi
31. Education Minister  
Government of Goa, Daman and Diu  
Panaji (Goa)
32. Education Minister  
Mizoram  
Aizal
33. Education Minister  
Government of Pondicherry  
Pondicherry

(vi) All Members of the Executive  
Committee not included above

- 
34. Shri P.K. Thungan  
Deputy Minister of Education  
Ministry of Education  
Shastri Bhavan  
New Delhi
  35. Dr. P.L. Malhotra  
Director  
National Council of Educational  
Research and Training  
Sri Aurobindo Marg  
New Delhi
  36. Prof. V.G. Kulkarni  
Tata Institute of Fundamental  
Research, Homi Bhabha Centre for  
Science Education, Homi Babha Road  
Bombay
  37. Shri B.M. Joshi  
Principal  
Shree M.M. Pupils' Own School  
and Sharda Mandir  
Swami Vivekanand Road, Khar  
Bombay

38. Shri M.S. Dxit  
Principal  
Hiralal VN Inter College  
Chhibramau  
Farrukhabad (U.P.)
39. Dr. T.N. Dhar (up to 28 June 1984)  
Joint Director  
National Council of Educational  
Research and Training  
New Delhi
- 39(A) Dr. A.K. Jalaluddin  
(w.e.f. 14 August 1984)  
Joint Director  
National Council of Educational  
Research and Training  
New Delhi
40. Prof. P.N. Dave  
Central Coordinator  
UNICEF-assisted Projects  
National Council of Educational  
Research and Training  
New Delhi
41. Dr. J.S. Rajput  
Principal  
Regional College of Education  
Shyamla Hills  
Bhopal
42. Dr. (Smt.) Shakuntala Bhattacharya  
Reader  
Department of Education in Science  
and Mathematics, National Council of  
Educational Research and Training  
New Delhi
43. Shri Y.N. Chaturvedi  
Joint Secretary (SE)  
Ministry of Education  
Shastri Bhavan  
New Delhi
44. Shri Man Mohan Singh  
Financial Adviser  
NCERT and Ministry of Education  
Shastri Bhavan  
New Delhi
- (vi) (a) Chairman  
Central Board of Secondary  
Education  
New Delhi. *ex-officio*
45. Chairman  
Central Board of Secondary  
Education  
17-B, Indra Prastha Estate  
New Delhi

- (b) Commissioner  
Kendriya Vidyalaya Sangathan  
New Delhi. *ex-officio*
- (c) Director  
Central Health Education Bureau  
(D.G.H.S.)  
New Delhi. *ex-officio*
- (d) Deputy Director General  
Incharge of Agricultural Education  
ICAR Ministry of Agriculture  
New Delhi *ex-officio*
- (e) Director of Training  
Directorate General of Training  
and Employment  
Ministry of Labour  
New Delhi. *ex-officio*
- (f) Representative of Education  
Division Planning Commission  
New Delhi. *ex-officio*
46. Commissioner  
Kendriya Vidyalaya Sangathan  
Nehru House  
4-Bahadur Shah Zafar Marg  
New Delhi
47. Director  
Central Health Education Bureau  
(D.G.H.S.)  
Nirman Bhavan  
New Delhi
48. Deputy Director General  
Incharge of Agricultural Education  
ICAR, Ministry of Agriculture  
Dr. Rajendra Prasad Road  
New Delhi
49. Director of Training  
Directorate General of Training  
and Employment  
Ministry of Labour  
Shram Shakti Bhavan, Rafi Marg  
New Delhi
50. Educational Adviser  
Planning Commission  
Yojana Bhavan  
Parliament Street  
New Delhi
- (viii) Such other persons, not exceeding six, as the Government of India may, from time to time, nominate. No fewer than four of these shall be school teachers.
51. Prof. T. Subbarao  
Principal  
Technical Teachers Training Institute  
Madras
52. Prof. P.D. Kuikarni  
Principal  
Technical Teachers Training Institute  
Chandigarh
53. Shri Tushar Kanji Lal  
Headmaster  
Rangabella High School  
P.O. Rangebellia 24-Parganas  
West Bengal
54. Sri Mohd. Hussain Abdi  
Principal  
Rajkiya Uchtar Madhyamik Vidyalaya  
Gulardogi Tehri (Garhwal)  
Uttar Pradesh
55. Shri Demis D'Souza  
Headmaster  
St. Philomena's Boys High School  
Puttur, Distt. D.K.  
Karnataka

- |                 |  |
|-----------------|--|
| Special invitee | 56. Smt. Vinodini Shah<br>Principal<br>Sri R.P. Patadia Girls High School<br>Surendranagar Distt. Surendranagar<br>Gujarat       |
| Secretary       | 57. Secretary,<br>Council of Indian School<br>Certificate Examination<br>Pragati House, 3rd Floor<br>47-Nehru Place<br>New Delhi |
|                 | 58. Shri C. Ramachandran<br>Secretary<br>National Council of Educational<br>Research and Training<br>New Delhi                   |
- 

**EXECUTIVE COMMITTEE**

- |  |  |
|--|--|
| (i) President of the Council who shall be the <i>ex-officio</i> President of the Executive Committee                                     | 1. Smt. Shella Kaul<br>Minister of State<br>Ministry of Education<br>Shastri Bhawan<br>New Delhi             |
| (ii) (a) The Minister of State in the Ministry of Education who shall be the <i>ex-officio</i> Vice-President of the Executive Committee |  |
| (b) A Deputy Minister in the Ministry of Education nominated by the President, NCERT   | 2. Shri P.K. Thungan<br>Deputy Minister of Education<br>Ministry of Education<br>Shastri Bhawan<br>New Delhi |
| (c) Director of the Council  | 3. Dr. P.L. Malhotra<br>Director<br>National Council of Educational<br>Research and Training<br>New Delhi    |
| (d) Secretary, Ministry of Education, <i>ex-officio</i>  | 4. Smt. Serla Grewal<br>Secretary<br>Ministry of Education<br>Shastri Bhawan<br>New Delhi                    |
| (iii) Chairman of the University Grants Commission, Member <i>ex-officio</i>   | 5. Smt. Madhuri R. Shah<br>Chairman<br>University Grants Commission<br>Bahadur Shah Zafar Marg<br>New Delhi  |



- (iv) Four educationists with known interest in school education (two of whom shall be school teachers) nominated by the President
- (v) Joint Director of the Council
- (vi) Three members of the Faculty of the Council of whom at least two shall be at the level of Professors and Heads of Departments, nominated by the President of the Council
6. Prof. V.G. Kulkarni  
Project Director  
Tata Institute of Fundamental Research  
Homi Bhabha Centre for Science Education  
Homi Bhabha Road  
Bombay
7. Dr. N. Vedamani Manuel  
17-Kalashetra Road  
Madras
8. Shri B.M. Joshi  
Principal  
Shree M.M. Pupils' Own School and Sharda Mandir  
Swami Vivekanand Road, Khar  
Bombay
9. Shri M.S. Dixit  
Principal  
Hiralal VN Inter College  
Chilbramau  
Farrukhabad (U.P.)
- Dr. T.N. Dhar (up to 28 June 1984)  
Joint Director, NCERT
10. Dr. A.K. Jalaluddin  
(w.e.f. 14 August 1984)  
Joint Director  
National Council of Educational Research and Training  
New Delhi
11. Prof. P.N. Dave  
Head  
Department of Pre-School and Elementary Education  
New Delhi
12. Dr. J.S. Rajput  
Principal  
Regional College of Education  
Shyamla Hills  
Bhopal
13. Dr. (Smt.) Shakuntala Bhattacharya  
Reader  
Department of Education in Science and Mathematics  
National Council of Educational Research and Training  
New Delhi

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|---|---|
| (vi) One representative of the Ministry of Education  | 14. Shri Y.N. Chaturvedi<br>Joint Secretary (Schools)<br>Ministry of Education<br>Shastri Bhawan<br>New Delhi   |
| (viii) One representative of the Ministry of Finance, who shall be the Financial Adviser of the Council | 15. Shri Man Mohan Singh<br>Financial Adviser, NCERT<br>Ministry of Education<br>Shastri Bhawan<br>New Delhi<br><br>Shri C. Ramachandran<br>Secretary<br>NCERT<br>New Delhi |

**ESTABLISHMENT COMMITTEE**  
*(Under Regulation 10 of the Council)*

- |   |   |
|---|---|
| (i) The Director, NCERT<br>Chairman   | 1. Dr. P.L. Malhotra<br>Director, NCERT<br><i>Chairman</i>  |
| (ii) The Joint Director<br>NCERT  | 2. Dr. T.N. Dhar (up to 28 June 1984)<br>Dr. A.K. Jalaluddin<br>(w.e.f. 14 August 1984)<br>Joint Director<br>NCERT  |
| (iii) A nominee of the Ministry<br>of Education to be nominated<br>by the President                 | 3. Shri Y.N. Chaturvedi<br>Joint Secretary (SE)<br>Ministry of Education<br>Shastri Bhawan<br>New Delhi   |
| (iv) Four educationists to be<br>nominated by the President, of<br>whom at least one is a scientist | 4. Prof. H.C. Khare<br>Head, Department of Mathematics<br>and Statistics<br>University of Allahabad<br>Allahabad<br><br>5. Prof. M.M. Puri<br>Professor of Political Science<br>G-16 Panjab University<br>Chandigarh<br><br>6. Dr. S. Anandalakshmy<br>Director<br>Lady Irwin College<br>Sikandra Road<br>New Delhi<br><br>7. Prof. M.I. Savadatti<br>Senior Professor of Physics<br>and Member of the Syndicate<br>Karnataka University<br>Dharwad |

- |  |  |
|--|--|
| (v) One representative from the Regional Colleges of Education to be nominated by the President  | 8. Dr. S.N. Dutta<br>Principal<br>Regional College of Education<br>Ajmer                                     |
| (vi) One representative of the National Institute of Education Delhi, to be nominated by the President   | 9. Shri S.H. Khan<br>Reader, PCDC<br>NCERT<br>New Delhi  |
| (vii) Two representatives, one each from the regular academic and non-academic staff of the Council elected from amongst their category in the manner prescribed in Appendix to this Regulation. | 10. Shri R.P. Saxena<br>Lecturer<br>Regional College of Education<br>Bhopal                                  |
| (viii) Financial Adviser, NCERT  | 11. Shri M.S. Bist<br>Store-keeper, Gr-I   |
| (ix) Secretary, NCERT<br><i>(Member-Convenor)</i>  | 12. Shri Man Mohan Singh<br>Financial Adviser, NCERT<br>Ministry of Education<br>Shastri Bhawan<br>New Delhi |
|  | 13. Shri C. Ramachandran<br>Secretary, NCERT   |

**FINANCE COMMITTEE**  
*(Under Rules 62 of the Council)*

- |   |   |
|---|---|
| 1. Director, NCERT<br><i>(ex-officio)</i>   | 1. Dr. P.L. Malhotra<br>Director, NCERT<br>New Delhi  |
| 2. Financial Adviser<br><i>(ex-officio)</i> | 2. Shri Man Mohan Singh<br>Financial Adviser, NCERT<br>Ministry of Education and Culture<br>Shastri Bhawan<br>New Delhi |
| 3. Other Members                            | 3. Shri Y.N. Chaturvedi<br>Joint Secretary (SE)<br>Ministry of Education and Culture<br>Shastri Bhawan<br>New Delhi     |
|   | 4. Shri J. Veera Raghavan<br>Adviser (Education)<br>Planning Commission,<br>New Delhi                                   |
|   | 5. Dr. P.C. Mukherji<br>Pro-Vice-Chancellor<br>University of Delhi<br>Delhi   |
| 4. Secretary, NCERT<br><i>Convenor</i>      | 6. Shri C. Ramachandran<br>Secretary, NCERT<br>New Delhi  |

## BUILDING AND WORKS COMMITTEE

1. Director, NCERT <i>(ex-officio)</i>	<i>Chairman</i>	Dr. P.L. Malhotra Director, NCERT
2. Joint Director, NCERT <i>(ex-officio)</i>	<i>Vice-Chairman</i>	Dr. A.K. Jalaluddin Joint Director, NCERT
3. Chief Engineer, CPWD or his nominee	<i>Member</i>	Dr. M.G. Joseph Chief Engineer (Const.) CPWD R.K. Puram New Delhi
4. A representative of the Ministry of Finance (Works)	<i>Member</i>	Shri M.R. Rao A.F.A. (Works) Ministry of Finance (Works) Nirman Bhawan New Delhi
5. The Consulting Architect of NCERT	<i>Member</i>	Shri I.D. Rustogi Senior Architect, CPWD (NDZ-IV) (Room No. 426) 'A' Wing, Nirman Bhawan New Delhi
6. Financial Adviser of the Council or his nominee	<i>Member</i>	Shri Man Mohan Singh Financial Adviser, NCERT Ministry of Education Shastri Bhavan New Delhi
7. A nominee of the Ministry of Education	<i>Member</i>	Shri Y.N. Chaturvedi Joint Secretary (SE) Ministry of Education Shastri Bhavan New Delhi
8. A Civil Engineer of Standing (nominated by the President)	<i>Member</i>	Shri R.A. Khemani Chief Engineer, DDA New Delhi
9. An Electrical Engineer of Standing (nominated by the President)	<i>Member</i>	Shri R.D. John Chief Engineer Cauvery Bhavan 'F' Block, 9th Floor Kempgowda Road Bangalore
10. A member of the Executive Committee (nominated by the Committee)	<i>Member</i>	Prof. J.S. Rajput Principal Regional College of Education Shyamla Hills Bhopal
11. Secretary, NCERT	<i>Member- Secretary</i>	Shri C. Ramachandran, IAS Secretary, NCERT

### PROGRAMME ADVISORY COMMITTEE

1. Director, NCERT *Chairman*
2. Joint Director, NCERT *Vice-Chairman*
3. Prof. C.L. Kundu  
Faculty of Education  
Kurukshetra University  
Kurukshetra (Haryana) *Member*
4. Prof. N. Malla Reddy  
Faculty of Education  
Osmania University  
Hyderabad *Member*
5. Prof. (Smt.) Vimla Agrawal  
Faculty of Education  
Lucknow University  
Lucknow (U.P.) *Member*
6. Prof. S. Narayan Rao  
Deptt. of Psychology  
Sri Venkateswara University  
Tirupati *Member*
7. Dr. V.K. Koel  
Director  
National Institute for Visually  
Handicapped  
Rajpur Road  
Dehradun (U.P.) *Member*

According to Rule 48(4), PAC should have five Directors of State Institute of Education. They are:

8. Director  
State Council of Educational  
Research and Training  
Mehendru  
Patna *Member*
9. Director  
State Institute of Education  
Solan (H.P.) *Member*
10. Director  
State Council of Educational  
Research and Training  
Meghalaya, Mawkhar  
Main Road  
Shillong *Member*
11. Director  
State Institute of Educational  
Research and Training  
Udaipur (Rajasthan) *Member*

12. **Director** *Member*  
State Council of Educational  
Research and Training  
6, D.P.I. Compound  
College Road  
Madras

According to Rule (5), PAC should have two representatives of each Department of the NIE of whom one shall be Head and the Principal and one Professor/Reader from each of the constituent units of the Council. On reorganization of the NIE Departments on 1 May 1984, the new members are as under:

13. **Head**  
Department of Education in Social Sciences and Humanities  
NCERT  
New Delhi
14. **Head**  
Department of Education in Science and Mathematics  
NCERT  
New Delhi
15. **Head**  
Department of Pre-School and Elementary Education  
NCERT  
New Delhi
16. **Head**  
Department of Teacher Education, Special Education and Extension Services  
NCERT  
New Delhi
17. **Head**  
Department of Vocationalization of Education  
NCERT  
New Delhi
18. **Head**  
Department of Educational Psychology, Counselling and Guidance  
NCERT  
New Delhi
19. **Head**  
Department of Policy, Research, Planning and Programming  
NCERT  
New Delhi
20. **Head**  
Department of Library, Documentation and Information  
NCERT  
New Delhi
21. **Head**  
Department of Measurement, Evaluation, Survey and Data Processing  
NCERT  
New Delhi

22. Head  
Department of Field Services and Coordination  
NCERT  
New Delhi
23. Head  
Workshop Department  
NCERT  
New Delhi
24. Head  
Publication Department  
NCERT  
New Delhi
25. Joint Director  
Central Institute for Educational Technology (CIET)  
NCERT  
New Delhi
26. Principal  
Regional College of Education  
Ajmer (Rajasthan)
27. Principal  
Regional College of Education  
Bhopal (M.P.)
28. Principal  
Regional College of Education  
Bhubaneswar (Orissa)
29. Principal  
Regional College of Education  
Mysore (Karnataka)
30. Dr. K.V. Rao  
Professor  
Department of Education in Science and Mathematics  
NCERT  
New Delhi
31. Dr. (Km.) S.K. Ram  
Professor  
Department of Education in Social Sciences and Humanities  
NCERT  
New Delhi
32. Dr. (Smt.) R. Muralidharan  
Professor  
Department of Pre-School and Elementary Education  
NCERT  
New Delhi
33. Dr. Baqer Mehdi  
Professor  
Department of Teacher Education, Special Education and Extension Services  
NCERT  
New Delhi

34. Dr. (Smt.) S.P. Patel  
Professor  
Department of Vocationalization of Education  
NCERT  
New Delhi
  35. Dr. V.K. Singh  
Professor  
Department of Educational Psychology, Counselling and Guidance  
NCERT  
New Delhi
  36. Smt. K.N. Hiriyannah  
Professor  
Department of Measurement, Evaluation, Survey and Data Processing  
NCERT  
New Delhi
  37. Dr. P.M. Patel  
Professor  
Department of Policy, Research Planning and Programming  
NCERT  
New Delhi
  38. Dr. O.S. Dewal  
Professor  
Central Institute for Educational Technology (CIET)  
NCERT  
New Delhi
  39. Prof. A.N. Maheshwari  
Regional College of Education  
Mysore
  40. Prof. K.C. Panda  
Regional College of Education  
Bhubaneswar (Orissa)
  41. Prof. N. Vaidya  
Regional College of Education  
Ajmer (Rajasthan)
  42. Prof. S.T.V. Vavindachryulu  
Regional College of Education  
Shyamla Hills  
Bhopal (M.P.)
- A. Special Invitees*
43. Dr. W.A.F. Hopper  
Field Adviser, NCERT  
No. 32, Hindi Prachar Sabha Street, T. Nagar  
Madras, Tamil Nadu
  44. Dr. R.P. Kathuria  
Field Adviser, NCERT  
MIE-161, Block No. 6  
Saraswati Nagar, Jawahar Chowk  
Bhopal (M.P.)



45. Dr. K.L. Joshi  
Field Adviser, NCERT  
Laxmi Bhawan Building  
Kothi No. 209/1 & 219/1  
New Saw Mill, Sanjauli  
Simla (H.P.)

46. Dr. D.K. Bhattacharya  
Field Adviser, NCERT  
Boyce Road, Laitmukhra  
Shillong (Meghalaya)

*B. Representatives from the Units of NIE*

47. Prof. D.S. Rawat  
Head SEP Unit  
NCERT  
New Delhi

48. Dr. R.M. Kalra  
Head IR Unit  
NCERT  
New Delhi

49. Prof. I.S. Chaudhri  
Deptt. of Policy Research Planning and Programming  
NCERT  
New Delhi

*C. From the Secretariat*

50. Secretary, NCERT

51. Chief Accounts Officer, NCERT

52. Shri H.K.L. Chugh  
Deputy Secretary  
NCERT

53. Shri G.R. Das  
Deputy Secretary  
NCERT

54. Shri T.S. Sarma  
Public Relations Officer  
NCERT

EDUCATIONAL RESEARCH AND INNOVATIONS COMMITTEE

1. Dr. Y. Ravi  
Director  
State Council of Educational Research and Training  
Altya Primary School Campus  
Opp. Andhra Pradesh Sports Council  
Hyderabad

2. Dr. (Smt.) T. Thakur  
Principal  
State Institute of Education  
Jorhat (Assam)

3. Dr. Partha N. Mukherji  
Professor  
Indian Statistical Institute  
Sansanwal Marg  
New Delhi
4. Dr. T.B. Naik  
Director  
Tribal Research and Training Institute  
Gujarat Vidyapeeth  
Ahmedabad (Gujarat)
5. Prof. A.L. Nagar  
Delhi School of Economics  
Delhi University  
Delhi
6. Prof. Agha Ashraf Ali  
Dean and Head  
Postgraduate Department of Education, Kashmir University  
Hazratbal  
Srinagar (J&K)
7. Prof. (Smt.) V. Agarwal  
Professor and Head  
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Lucknow University  
Lucknow (U.P.)
8. Dr. R. Srinivasan  
Professor of Education  
Laxmi College of Education  
Gandhigram, Distt. Madurai  
Tamil Nadu
9. Dr. B.K. Roy Burman  
Senior Professor  
Council for Social Development  
53, Lodhi Estate  
New Delhi
10. Prof. B.R. Kamble  
Head  
Department of History  
Shivaji University  
Kolhapur  
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11. Dr. K.C. Panda  
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Regional College of Education  
Bhubaneswar
12. Dr. S.T.V.G. Acharyulu  
Professor  
Regional College of Education  
Bhopal

13. Dr. (Smt.) Amrit Kaur  
Professor  
Regional College of Education  
Ajmer

#### ACADEMIC COMMITTEE

1. Shri B.S. Parakh Chairman and Convener  
Dean (Academic)
2. Dr. A. Sharma, Dean (Research)
3. Dr. G.S. Shrikantia, Dean (Coordination)
4. Head, Department of Education In Science and Mathematics
5. Head, Department of Education in Social Sciences and Humanities
6. Head, Department of Vocationalization of Education
7. Head, Department of Measurement, Evaluation, Survey and Data Processing
8. Head, Department of Pre-School and Elementary Education
9. Head, Department of Educational Psychology, Counselling and Guidance
10. Head, Department of Teacher Education, Special Education and Extension Services
11. Head, Department of Policy, Research, Planning and Programming
12. Head, Workshop Department
13. Head, Publication Department
14. Head, Department of Field Services and Coordination
15. Head, Department of Library, Documentation and Information
16. Shri R. C. Saxena, Professor, Department of Education in Science and Mathematics
17. Dr. Anil Vidyalkar, Professor, Department of Education in Social Sciences and Humanities
18. Dr.(Smt) S. P. Patel, Professor, Department of Vocationalization of Education
19. Dr. Pritam Singh, Department of Measurement, Evaluation, Survey and Data Processing (Vacant)
20. Miss I. Malani, Professor, Department of Pre-School and Elementary Education
21. Dr. R.K. Mathur, Professor, Department of Educational Psychology, Counselling and Guidance.
22. Dr. K.N. Saxena, Professor, Department of Teacher Education, Special Education and Extension Services
23. Dr. N. Malla Reddy, Professor, Faculty of Education, Osmania University, Hyderabad (A.P.)
24. Dr. (Smt.) Vimla Agarwal, Professor, Faculty of Education, Lucknow University, Lucknow (U.P.)

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1. Dr. (Smt.) Perin H. Mehta Professor and Head Convener
2. Dr. (Smt.) C. Dhar, Professor
3. Dr. R.K. Mathur, Professor
4. Head, Department of Teacher Education, Special Education and Extension Services
5. Head, Department of Measurement, Evaluation, Survey and Data Processing
6. Head, Department of Vocationalization of Education
7. Dr. (Km.) M.D. Bengalee  
Professor and Head  
Department of Education  
University of Bombay  
Kalina Campus  
Bombay
8. Dr. S. Narayan Rao  
Professor and Head  
Department of Psychology  
S.D. University  
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3. Dr. L.R.N. Srivastava, Professor
4. Dr. N.K. Jangira, Reader
5. Head, Department of Education in Science and Mathematics
6. Head, Department of Education in Social Sciences and Humanities
7. Head, Department of Educational Psychology, Counselling and Guidance
8. Prof. Durgunand Sinha  
Director  
A.N. Sinha Institute of Social Sciences  
Patna
9. Dr. (Km.) Yashu Bohn Mehta  
Head, Department of Special Education  
S.N.D.T. University  
Bombay

### III. *Departmental Advisory Board for Department of Vocationalization of Education*

1. Dr. A.K. Mishra  
Professor and Head Convener
2. Dr. P. Raizada, Reader

3. Shri G. Guru, Reader
4. Head, Department of Education in Science and Mathematics
5. Joint Director, CIET
6. Head, Department of Pre-School and Elementary Education
7. Head, Department of Measurement, Evaluation, Survey and Data Processing
8. Dr. U.C. Upadhyay  
Asstt. Director General  
Indian Council of Agricultural Research  
Krishi Bhawan, Dr. Rajendra Prasad Road  
New Delhi
9. Prof. Braj Kishore  
Department of Management  
Osmania University  
Hyderabad (A.P.)
10. Dr. L. Phadnis  
Dean  
Home Science College  
University of Agricultural Sciences  
Dharwar
11. Prof. A.L. Jain  
Technical Teachers' Training Institute  
Chandigarh
12. Prof. V. Ramalingaswamy  
Deputy Director General  
Indian Council of Medical Research  
Ansari Nagar  
New Delhi

***IV. Departmental Advisory Board for the Department of Education in Science and Mathematics***

1. Dr. B. Ganguly  
Professor and Head Convenor
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3. Dr. Chettan Singh, Professor
4. Shri R.C. Saxena, Professor
5. Dr. J. Mitra, Reader
6. Head, Publication Department
7. Joint Director, CIET/his nominee
8. Head, Department of Teacher Education, Special Education and Extension Services
9. Head, Department of Pre-School and Elementary Education
10. Prof. L.N. Vyas  
Department of Botany  
M.I.S. University, Udaipur (Rajasthan)

11. Prof. R.C. Mehrotra  
Department of Chemistry  
University of Rajasthan  
Jaipur
12. Prof. S.P. Puri  
Department of Physics  
Panjab University  
Chandigarh
13. Prof. M.P. Singh  
Department of Mathematics  
Indian Institute of Technology  
New Delhi

V. *Departmental Advisory Board for the Department of Pre-School and Elementary Education*

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3. Smt. A. Khanna, Professor
4. Km. I. Malani, Professor
5. Dr. S.D. Roka, Professor
6. Head, Department of Education in Science and Mathematics
7. Head, Department of Education in Social Sciences and Humanities
8. Head, Department of Vocationalization of Education
9. Head, Department of Teacher Education, Special Education and Extension Services
10. Joint Director, Central Institute of Educational Technology
11. Prof. Satyabhushan, National Institute of Educational Planning and Administration, NIE Campus, Sri Aurobindo Marg, New Delhi
12. Dr. Sachidananda, Head, Department of Anthropology and Sociology, A.N. Sinha Institute of Social Studies, near Gole Ghar, Patna (Bihar)
13. Shri I.S. Gaur, Additional Director (Basic) Directorate of Education, Allahabad (U.P.)

VI. *Departmental Advisory Board for the Department of Education in Social Sciences and Humanities*

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3. Dr. G.L. Arora, Reader
4. Dr. H.L. Bachhotia, Lecturer
- 4-A. Dr. Arjun Dev, Professor in DESSH
5. Head, Department of Education in Science and Mathematics.
6. Head, Department of Teacher Education, Special Education and Extension Services

7. Head, Department of Measurement, Evaluation, Survey and Data Processing
  8. Prof. K.S. Gill, Professor of Economics, Guru Nanak Dev University, Amritsar (Punjab)
  9. Prof. R.N. Gosh, Central Institute of English and Foreign Languages, Hyderabad (A.P.)
  10. Prof. Namwar Singh, Jawaharlal Nehru University, New Mehrauli Road, New Delhi
- VII. *Departmental Advisory Board for the Department of Field Services and Coordination*
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  3. Dr. Wolfgang, Director, SCERT, Meghalaya, Shillong
  4. Dr. S.C. Dash, Director, SCERT, Bhubaneswar (Orissa)
- VIII. *Departmental Advisory Board for the Workshop Department*
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  3. Shri R.R. Sharma, Technical Officer
  4. Shri Ved Ratna, Professor, Department of Education in Science and Mathematics
  5. Smt. S. Bhattacharya, Reader, Department of Pre-School and Elementary Education
  6. Shri S.N. Ray, Lecturer, Department of Vocationalization of Education
  7. Prof. N.K. Tewari, Mechanical Engineering Department, Indian Institute of Technology, New Delhi
  8. Shri H.N.P. Poddar, Scientist Incharge, Workshop, National Physical Laboratory, Hill Side Road, New Delhi
- IX. *Departmental Advisory Board for the Department of Measurement, Evaluation, Survey and Data Processing*
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  2. Dr. A.D. Banerjee, Reader
  3. Shri J.P. Aggarwal, Reader
  4. Dr. C.L. Kaul, Lecturer
  5. Head, Department of Education in Social Sciences and Humanities
  6. Head, Department of Education in Science and Mathematics
  7. Head, Department of Educational Psychology, Counselling and Guidance
  8. Dr. R.N. Mehrotra, Professor, Department of Education, Delhi University, 36, Chhatra Marg, Delhi
  9. Prof. P.K. Roy, H-1456, Chitranjan Park, New Delhi

## LIBRARY ADVISORY COMMITTEE

- |   |                 |
|---|-----------------|
| 1. Prof. B.S. Parakh (Dean-A)<br>Head, DESSH  | <i>Chairman</i> |
| 2. Prof. (Smt.) Perin H. Mehta<br>Head, DEPCG   | <i>Member</i>   |
| 3. Prof. H.S. Srivastava<br>Head, DMES & DP   | <i>Member</i>   |
| 4. Prof. P.N. Dave<br>Head, DPSEE   | <i>Member</i>   |
| 5. Prof. A.K. Misra<br>Head, DVE  | <i>Member</i>   |
| 6. Prof. B. Ganguli<br>Head, DESM   | <i>Member</i>   |
| 7. Shri Jaipal Nangla<br>Head, Publication Department   | <i>Member</i>   |
| 8. Prof. (Smt.) Adarsh Khanna<br>Representative of Head<br>DTESE & ES                                   | <i>Member</i>   |
| 9. Dr. P.K. Bhattacharya<br>Head, Workshop Department   | <i>Member</i>   |
| 10. Professional Senior<br>(Deputy Librarian)<br>Department of Library Documentation and<br>Information | <i>Member</i>   |
| 11. Shri F.C. Katyal<br>Professional Assistant<br>Representative of Library Association                 | <i>Member</i>   |
| 12. Head<br>Department of Library Documentation and<br>Information                                      | <i>Convener</i> |

## ADVISORY COMMITTEE/EDITORIAL BOARD FOR JOURNALS CELL

- |  |                 |
|--|-----------------|
| 1. Dr. P.L. Malhotra<br>Director, NCERT  | <i>Chairman</i> |
| 2. Joint Director, NCERT   | <i>Member</i>   |
| 3. Shri Veeraraghavan<br>Adviser (Education)<br>Planning Commission<br>Yojana Bhavan, Parliament Street<br>New Delhi | <i>Member</i>   |



- |     |  |                   |
|-----|--|-------------------|
| 4.  | Prof. Satya Bhushan<br>Executive Director<br>National Institute of Educational Planning and<br>Administration<br>NIE Campus<br>New Delhi | <i>Member</i>     |
| 5.  | Dr. (Smt.) Kapila Vatsyayan<br>Joint Educational Adviser (Culture)<br>Ministry of Education and Culture<br>Government of India           | <i>Member</i>     |
| 6.  | Prof. M.R. Bhide<br>Poona University<br>Pune   | <i>Member</i>     |
| 7.  | Prof. Rasheeduddin Khan<br>Jawaharlal Nehru University<br>New Mehrauli Road<br>New Delhi   | <i>Member</i>     |
| 8.  | Prof. L.S. Kothari<br>University of Delhi<br>Delhi   | <i>Member</i>     |
| 9.  | Prof. Durgananda Sinha<br>Director<br>A.N. Sinha Institute of Social Studies<br>Patna  | <i>Member</i>     |
| 10. | Prof. R.N. Ghosh<br>CIEFL<br>Hyderabad   | <i>Member</i>     |
| 11. | Prof. Namwar Singh<br>Jawaharlal Nehru University<br>New Mehrauli Road<br>New Delhi  | <i>Member</i>     |
| 12. | Dean (Academic)  | <i>ex-officio</i> |
| 13. | Dean (Research)  | <i>Member</i>     |
| 14. | Dean (Coordination)  | <i>Member</i>     |
| 15. | Head, Publication Department   | <i>Member</i>     |
| 16. | Head, Department of Teacher<br>Education, Special Education<br>and Extension Services  | <i>Member</i>     |
| 17. | Head, Department of<br>Education in Science and Mathematics  | <i>Member</i>     |
| 18. | Prof. (Ret.) S.K. Ram<br>DESSH   | <i>Member</i>     |
| 19. | Prof. O.S. Dewal<br>Journals Cell  | <i>Convener</i>   |

## *Appendix D*

### **Major Decisions taken by the Committees during 1984-85**

#### EXECUTIVE COMMITTEE

**T**HE 62nd and 63rd meetings of the Executive Committee of the Council were held on 4 June and 24 November 1984, respectively. During the discussion on the subject of books on moral education, the Director explained the circumstances under which the manuscript could not be received from the authors on the promised date. The Committee approved the new nomenclature for moral education as 'value-oriented education' to be used in future. Smt. Serla Grewal, Education Secretary, opined that Prof. Kireet Joshi, Special Secretary in the Ministry of Education and Culture, should also be involved in various activities of the NCERT pertaining to value-oriented education. It was decided that a copy of the syllabus would be sent to Prof. Kireet Joshi and the syllabus would be finalized by him and the Director, NCERT. The Director informed the Committee that the review committee set up under the chairmanship of Prof. Rais Ahmed regarding the N.T.S. scheme had already met twice.

The progress of work in regard to the evaluation of textbooks from the stand-point of national integration, was reviewed and it was mentioned that it has been accelerated in the States of Madhya Pradesh, West Bengal and Karnataka. The States still going slow were identified as Andhra Pradesh, Nagaland, Sikkim and Manipur, where more concerted efforts were required.

The Committee expressed satisfaction over the utilization rate of the assistance being received through UNICEF, which had shown considerable improvement. The Committee was informed that a working group had been set up to review the progress in the implementation of the projects and to suggest new approaches for inclusion in the next Master Plan of Operations. The Committee also desired that the Director, NCERT, should get the evaluation done, through external agencies, of all UNICEF Projects completed expeditiously.

The Executive Committee noted with satisfaction that considerable progress had been achieved in the project on Population Education and that population education had spread appreciably within a short period. The Committee decided that a small group might be set up, which could work out details of innovative suggestions of extending expertise by the Population Education Cell of the NCERT to the Directorate of Adult Education in helping them to develop reading materials for neo-literates and holding of an all-India competition of imaginative posters, charts and designs by the NCERT with first and second prizes worth Rs. 5000 and Rs 3000, respectively, for implementation during 1984-85 itself.

Regarding the time-bound promotion of non-academic staff after eight years of service, the Executive Committee decided to set up a Committee to examine all aspects of the problem including amendment to the existing recruitment rules, where necessary, which should give its report within a period of four to five months. The Committee will comprise the following:

Joint Secretary (Schools) Ministry of Education and Culture	<i>Chairman</i>
Joint Director NCERT	<i>Member</i>
Secretary, NCERT	<i>Member</i>
Deputy Financial Adviser Ministry of Education and Culture	<i>Member</i>
Deputy Secretary (Establishment) NCERT	<i>Convener</i>

The Committee also decided that the cases where very little or no financial benefit had accrued as a result of the fixation of their pay in the selection grade or in up-graded scale, would be referred to the Financial Adviser for consideration.

The Committee discussed the case of embezzlement of funds in Vikram A. Sarabhai Community Science Centre, Ahmedabad, at length and the Committee desired that the following action should be taken by the Council:

- (a) The embezzled amount worth Rs. 3-11 lakhs should be recovered from VASCSC so that the loss incurred by the Council is made good and the Council's interests are safeguarded.
- (b) Subject to such recovery, the Council can release funds to VASCSC at the level already approved by the Executive Committee in 1983.
- (c) VASCSC should take all precautions to ensure that embezzlement of funds does not recur in future and
- (d) The Council should also insulate itself against such losses of public money in future by ensuring that the audit of accounts of VASCSC is conducted every year by an audit party deputed by the Council. This will be in addition to VASCSC getting their accounts audited by Chartered Accountants as laid down under the Rules of the Council.

The Committee noted the action taken with regard to creation of posts for Central Institute of Educational Technology (CIET), and ratified. The Committee accorded its approval for regularizing the period of overstay beyond the sanctioned term of foreign service in the two cases mentioned in the agenda. The Chairman, however, observed that recurrence of such cases in future shall be avoided and procedure should be streamlined.

The Director, NCERT, pointed out that the entire question of the applicability of the merit promotion scheme for the eligible staff of the Library on the lines of the UGC would be examined and processed on file and submitted to the President, NCERT, for decision through the Financial Adviser of the Council.

The Director, NCERT, also apprised the Committee that in order to streamline the working of the NIE, it has recently been reorganized into 12 major departments.

The Committee noted the progress of action on the decisions taken in the previous meeting. While reviewing the progress, the Education Secretary suggested that the evaluation of UNICEF projects which has been entrusted to outside agencies should be completed expeditiously.

The Joint Director particularly drew the attention of the Committee to the work done by the Council during the year in certain priority areas like evaluation of textbooks, value-oriented education, teaching of freedom struggle, etc. A new programme, Reading to Learn, has been launched to make the children interested in reading. The Committee appreciated the publications *Science and Man* and *Nehru* in the anthology series being brought out by the Council. The Committee advised that steps may be taken for translation of these publications into Hindi also. The Committee suggested that the work done by the Council in the area of 'education of the disabled' should be effectively disseminated to all concerned. The Committee approved the draft annual report of the Council for the year 1983-84.

The Committee was informed that the evaluation of textbooks prescribed in the Christian schools of Delhi was nearing completion and that the final report is expected to be ready in a week. The Committee noted the progress made.

The Committee noted the action taken by the Council for starting a Science Centre as part of the Silver Jubilee Celebrations. The Committee welcomed the idea and suggested that the advice and assistance of other agencies interested in science education like the National Council for Science Museums may be sought in the formulation and implementation of the scheme. The Committee wanted a detailed project report to be prepared and submitted.

While reviewing the progress of preparation of new textbooks the Committee stressed the importance of periodical revision of textbooks so that they do not become obsolescent. The NCERT should take timely initiative in conducting such exercises. Time table in this regard should be prepared for the revision of textbooks and sent to the Ministry. The Council should undertake the revision of textbooks with an open mind. The Central Board of Secondary Education and the National Council of Educational Research and Training should play a mutually complementary role in such exercises.

The Committee noted the progress regarding National Integration through Community Singing. The Committee cautioned about the selection of proper songs. The Chairman referred to a successful programme of community singing she had organized some years back in Bombay and suggested that suitable songs from that programme also could be considered for inclusion in the anthology of songs to be prepared by the Council. The songs which were popular during the freedom movement also should find a place. Shri B.M. Joshi said that the programme was quite popular in Maharashtra and offered to send some of the popular songs to the Council. The Education Secretary referred to the instructions of the late Prime Minister that there should be no regimentation in the implementation of the community singing programme. There should be sufficient scope for local and regional initiative also. While considering grant of retirement benefits to the employees of the Council on the basis of combined service rendered in another autonomous body or Central Government department, the Committee was of the view that in the interest of equity, individual cases of hardship should be sympathetically considered. Therefore, the Committee advised that such cases may be referred to the Ministry as already recommended by the Finance Committee.

While reviewing the progress of the computer literacy project, the Committee emphasized the need for continuous research, monitoring and evaluation in the implementation of a programme of such magnitude. Inadequacy of infrastructural facilities for implementing the programme was also pointed out. The Ministry would be convening a meeting shortly for this purpose.

The Executive Committee, on 24 November 1984, passed a resolution condoling the untimely death of the late Prime Minister Indira Gandhi. The members stood in silence for a minute as a mark of respect to the departed leader.

#### FINANCE COMMITTEE

**T**HE 62nd and 63rd meeting of the Finance Committee was held on 30 April and 17 November 1984, respectively. The Finance Committee after detailed discussion suggested that the Director may constitute a suitable Purchase Committee to make recommendations regarding purchase of woolen jerseys for Group D employees of the Council. The Director may sanction purchase of woolen jerseys from the open market provided this Committee finds the materials available with the Cooperative Stores or Khadi Gramudhyog Bhawan not of suitable quality or for any other reason to be recorded in writing. Open market purchases will be subject to the prescribed procedure and the cost of jerseys to be purchased from the open market should not exceed the cost of jerseys supplied for Group D staff of the Central Government.

The Finance Committee recommended that the amount of Rs. 8,908.42, pertaining to NTS examination, recoverable from Prof. M.M. Puri, Panjab University, Chandigarh, may be written off.

The Finance Committee agreed that the requirement of obtaining the statement of expenditure in respect of 185 institutions listed in the annexure of the memorandum pertaining to the scheme of assistance for experimental projects may be waived and a total amount of Rs. 63,987.10 given to them as small grants mostly ranging from Rs. 50 to 700 in each case may be written off.

The Finance Committee did not agree to the proposal of the Council that employees whose names were specifically sponsored by international organizations should be treated as 'on duty' for the period of assignment, since such acceptance might lead to unhealthy practices not desirable in the overall interest of the Council. The Finance Committee, as a special case, agreed to the continuance of the existing posts subsidized by UNICEF up to September 1984 only.

The Finance Committee ratified the action taken by the Council in creating one post each of Section Officer, Assistant and two posts of LDCs (one each in Hindi/English) for the work relating to the scheme of Community Singing as a mass movement as per the approval of the Government of India. The Finance Committee also approved the proposal for creating these posts on a regular basis.

The action taken for the continuance of the ministerial posts for the population education programme with the concurrence of the Financial Adviser, NCERT, was ratified by the Finance Committee.

The Finance Committee ratified the action taken by the Director, NCERT, regarding donation of four mini-transistorized Tape-Recorders worth Rs. 4400 in 1973 to Kerala University. The Finance Committee decided that a comprehensive proposal may be submitted on file to the Financial Adviser regarding construction of godowns for storing the NCERT textbooks and other publications and stock printing paper at the NIE Campus to enable him to take up the matter with the Ministry of Finance.

The Committee observed the view that more stringent control should be exercised in permitting air travel facility to the non-entitled officials. The Finance Committee agreed that the Director may be authorised in future to grant relaxation in deserving cases under Rule 8(c) of the House Building Advance Rules. The Finance Committee approved the proposal of providing of over-coats of khaki drill cloth to the technical staff of the Workshop Department of the NCERT.

The Finance Committee approved the proposal of repayment of House Building Advance granted to the late Prof. B. Sharan in monthly instalments and issuance of No-Objection Certificate for transfer of property at the request of Mrs. P.L. Mathur, wife of the late Prof. B. Sharan.

The proposal for appointment of a Consultant in Horticulture in the NCERT was approved. The Finance Committee stressed that a competent expert, preferably a naturalist, be appointed as a consultant in horticulture.

The Committee advised to refer the proposal to award stipends to students admitted to the Vocational Courses to be started in the Demonstration Schools of the Regional Colleges of Education from the academic session 1984-85, to the Ministry of Education, Schools Division.

The proposal to acquire a word processor at an estimated cost of Rs. 2 lakhs and recurring expenditure of about Rs. 23 thousand per annum was approved following the prescribed procedure in effecting the purchase.

The proposals regarding increase in the value of prizes for Seminar Reading Programme for Teachers and Teacher Educators were approved. The Committee approved the enhancement of grant from Rs. 3000 to Rs. 5000 for the publication of Ph.D. theses/ Research Reports.

The Committee ratified the decision regarding creation of one post each of Section Officer and Assistant Programme Coordinator in the four Regional Colleges of Education. The Committee ratified the decision regarding creation of a post of Machine-man Gr.-II-cum-Compositor in the CIET (DTA Wing).

The Committee approved the condemnation of the jeep as recommended by the condemnation board and also accorded its approval for the purchase of a new van, in replacement. The Committee approved the proposals of grant of ad hoc bonus to eligible employees of the Council for the year 1983-84. The Committee ratified the proposal approved by the Financial Adviser regarding enhancement of stipends to students of Diploma Course in Educational and Vocational Guidance from Rs. 250 to Rs. 325 P.M.

The Committee approved the conversion of 24 temporary academic posts into permanent ones as proposed. The action taken by the Director in converting 10 temporary posts of Readers into permanent ones was also ratified.

The Committee observed that the orders regarding the grant of retirement benefits have been issued by the Ministry of Home Affairs. The Committee recommended that the benefits may be extended to those who retired from 1976 onwards and advised that the Council may accordingly take up the matter with the Ministry for orders.

The Committee approved the enhanced rates of remunerations as proposed regarding payment to outside artists for preparation of illustrations, maps, cover designs, etc.

The Committee approved the declaring of the services of security supervisor as essential — allotment of accommodation free of rent.

The Committee approved the revised price of Rs. 300 for the primary science kit.

The Committee approved the proposed price of Rs. 9.60 for the English Textbook for Class I for Arunachal Pradesh as a very special case.

#### BUILDING AND WORKS COMMITTEE

A meeting of the Building and Works Committee of the National Council of Educational Research and Training was held on 6 March 1985

The Committee decided to set up a sub committee comprising the following members for continuous monitoring of work relating to buildings:

- |   |                 |
|---|-----------------|
| 1. Secretary, NCERT                                     | <i>Chairman</i> |
| 2. Assistant Financial Adviser (Works)                  | <i>Member</i>   |
| 3. Senior Architect, CPWD                               | <i>Member</i>   |
| 4. Representative of Chief Engineer (Construction) CPWD | <i>Member</i>   |

The Committee recommended that the financial powers vested in the Director, NCERT, may be increased to Rs. 1.5 lakhs and the proposal sent to the Financial Adviser, NCERT, on file for clearance.

The Committee approved the following proposals:

1. Providing of a separate water pipe-line through the open wells for use in office building at the NIE Campus.
2. The construction of the underground sump and pump house at the Regional College of Education, Bhubaneswar.
3. Construction of Dormitory for Chowkidars in the NIE Campus
4. Construction of a Lecture Hall on the first floor over Accounts Branch at the Regional College of Education, Ajmer.
5. Construction of a Guest House at the Regional College of Education, Mysore, and also at the Regional Colleges of Education at Bhopal, Bhubaneswar and Ajmer.

6. Construction of staff quarters in the campuses of Regional College of Education.
7. Providing of 26 RCC Tanks over hostels and replacement of damaged/worn out G.I. Tanks over old staff quarters at the Regional College of Education, Bhubaneswar.
8. Providing of Plastic Water Tanks in the NCERT quarters in M.M.T.C. Colony
9. Construction of Compound Wall Phase III (on the Northern and Southern sides of the College Campus) at the Regional College of Education, Bhubaneswar.
10. Proposal for development of Mini Forest in the NIE Campus.
11. Raising of the boundary wall of the NCERT Campus on Ajit Singh Marg.
12. Three urgent works undertaken by the Regional College of Education, Ajmer and Mysore, during the year 1983-84.
13. Special repairs to Campus roads Phase-I including Black Topping of the roads in the Campus of the Regional College of Education, Bhubaneswar.
14. Extension of D.M. School Building at the Regional College of Education, Bhubaneswar.
15. Providing additional amenities in Zoology and Chemistry Laboratories in the extension of Science Laboratories at the RCE, Mysore.
16. Construction of boundary wall in the Regional College of Education, Ajmer (Northern side)
17. Providing and fixing M.S. Grill in NCERT quarters (D-Type flats) in MMTC/STC Colony.

#### THE ANNUAL GENERAL BODY MEETING

The 21st meeting of the Annual General Body of the National Council of Educational Research and Training (NCERT) was held on 31 December 1984 under the Chairmanship of Smt. Seria Grewal, Secretary to the Government of India, Ministry of Education.

While presenting the draft annual report for the year 1983-84 Dr. A.K. Jalaluddin, Joint Director, drew particular attention of the members to the activities undertaken by the Council in certain priority areas. He said that the programmes for universalization of elementary education continued to get the priority attention of the Council. The thrust in this area had been for the institutionalization of innovative practices and ideas. Another important programme taken up by the Council was the value orientation of education. An advisory body headed by Prof. D.S. Kothari has been constituted. Guidelines for development of instructional materials for value orientation and their evaluation have been prepared. An innovative project, called Reading to Learn, for the preparation of books, booklets and other reading materials for children has been taken up in a big way. The Council has started the publication of an anthology series and the first book in this series entitled *Science and Man* has already been released by the Hon'ble Minister of Education. The NCERT is also involved in the curriculum development for computer-aided instruction and computer literacy under the CLASS project. The Central Institute of Educational Technology which has been set up recently under the overall umbrella of NCERT, has taken up some major programmes for the development of software and the training of educational media personnel. He also apprised the members of the progress in the evaluation of textbooks from the standpoint of national integration. Intervening, the Director, NCERT, said that the Council is extending support to the various States who have recently switched over to the 10+2 pattern of education.

During discussion Prof. Vedatmani Manuel commended the efforts made by the Council in various areas for the quality improvement of education. He particularly appreciated the new programme for computer literacy and the programmes under INSAT.

The member from Assam said that the problem of dropouts is very acute in his State as in many other parts of the country. He emphasized the need for restructuring the teacher training programme to provide for adequate inputs for overcoming this problem. The Education Secretary welcomed this idea and said that the Government are thinking of setting up a new Regional College of Education in the North-Eastern region and hoped that with the setting up of this college the problems of the States in this region will get greater attention.

After discussion the General Body approved the draft Annual Report of the Council for the year 1983-84 as presented to it by the Executive Committee.

The Education Secretary pointed out that the provision of funds for education made in the State Budget was not adequate. She appealed to the Hon'ble Ministers and other representatives from the States to ensure that adequate funds are made available particularly for the elementary sector so that the universalization of elementary education becomes a reality by the targeted date. Special efforts have to be made for the education of women because the bulk of the women are still illiterate. She informed the members that the national awards for performance in increasing enrolment will be given this year also. During the Seventh Five Year Plan it should be possible to clear the backlog. She requested the States to ensure that there is proper utilization of funds allotted to them.

The Education Secretary, Himachal Pradesh, said that the State had made a provision of Rs. 55 crore for education in the Seventh Five Year Plan as against the Sixth Plan allocation of Rs. 26 crore. The corresponding provision for the annual plan 1985-86 made by the State was Rs. 5 crore. But the Planning Commission has reduced this to Rs. 4 crore. He requested the Education Secretary to take up the matter with the Planning Commission to retain the allocation proposed by the State Government. The Education Secretary promised to write to the Planning Commission accordingly.

The Education Secretary, Himachal Pradesh, also sought the participation of the NCERT in a seminar which they propose to hold towards the end of February for conducting an indepth study of the Adult Education Programme in the State. He also said that the time that the department spends on routine administrative matters could be cut down by using modern management techniques including computerization. The assistance of the NCERT and the NIEPA would be helpful to the State Government in this area. The Education Secretary suggested that the NCERT may take the initiative for organizing a workshop so that the materials prepared could be of use to all the States.

The Adviser to the Governor of Punjab said that the State has not yet switched over to the 10+2 pattern even though a decision has been taken to do this. He sought the advice of the Ministry and the NCERT to solve certain problems which they are encountering in the switch-over. He said that in the syllabi now being followed in the State considerable weightage has been given to the languages to the detriment of science teaching and that they are making efforts to rectify this imbalance. Another problem was that the standard of education, particularly in science and mathematics, was found to have declined in the State. He wanted the assistance of the NCERT to undertake special projects to identify the areas of deficiency and to suggest remedial measures. The Education Secretary informed the Adviser that the NCERT has already decided to depute three senior officers to the State to render necessary help to them. She desired to have a meeting with the Joint Secretary (Schools), representative of CBSE, the Director, NCERT, and the representative of the State Education Department convened to discuss these problems in detail.

The Minister of Education, Gujarat, informed that the State has introduced midday meals scheme on 19 November 1984, the birth day of Smt. Indira Gandhi. This has helped in attracting the children to schools particularly in backward areas. He also said that the Government have decided to make education free for women up to the highest level of



education including education in professional colleges. Considerable progress has also been made to make the State Institute of Educational Technology functional. The Education Secretary welcomed the steps taken by the Government of Gujarat. She said that investment in education should be treated as developmental expenditure since education is a pre-requisite for any developmental programme. Education also enables a person to derive full benefits from the developmental activities launched by the State.

The Minister of Education, Haryana, requested that the assistance from UNICEF for PECR should continue even after 31 December 1984. He also expressed concern that education was not getting the priority that it should get. Necessary changes should be brought about in the educational system to suit the requirements. While agreeing with the Minister, the Education Secretary sought the assistance of the States in changing this situation particularly through forums like the National Development Council.

The Education Secretary also stressed the need for giving greater attention to vocationalization. The progress in the implementation of this programme was tardy in many States. The NCERT has prepared materials for a number of vocational courses. The Government have also introduced a scheme for giving 3,000 stipends to the students who come out of the vocational stream. The response to this scheme is found to be quite encouraging particularly in the southern region.

The Minister of Education, Jammu and Kashmir, pointed out the difficulties in the teaching of the NCERT books in the State. The Education Secretary suggested that the education department in the State may take steps to modify the textbooks to suit their requirements.

The Minister of State for Education, Maharashtra, stated that they have taken up a programme for the construction of school buildings particularly in rural and backward areas. A scheme for the supply of milk to children studying in the first standard has also been launched, which will be gradually extended to higher classes. About six thousand primary teachers on a consolidated remuneration have been appointed to fill up the vacancies. The Government have also taken steps to encourage education of girls. It has been decided to provide free education for girls up to 12th standard and also to provide hostel facilities for girls separately in all the taluqs.

*Appendix E*

**National Council of Educational Research and Training  
Sanctioned Staff Strength as on 1 January 1985**

S.No.	Placement of Staff	Group A		Group B		Group C		Group D	Total
		Academic	Non-Academic	Academic	Non-Academic	Academic	Non-Academic		
1.	Headquarters	284	95	2	223	3	808	361	1776
2.	RCE, Ajmer	63	5	52	11	22	83	83	319
3.	RCE, Bhubaneswar	69	5	28	11	62	83	90	348
4.	RCE, Bhopal	60	6	24	9	46	77	79	301
5.	RCE, Mysore	80	5	29	12	49	86	78	339
6.	FA's Offices	25	—	—	—	—	50	26	101
		<u>581</u>	<u>116</u>	<u>135</u>	<u>266</u>	<u>182</u>	<u>1187</u>	<u>717</u>	<u>3184</u>

**SUMMARY GROUP-WISE**

GROUP A	-	697
GROUP B	-	401
GROUP C	-	1369
GROUP D	-	717
		<u>3184</u>

**SUMMARY-TYPE OF STAFF WISE**

ACADEMIC	-	898
NON-ACADEMIC	-	1569
GROUP D	-	717
		<u>3184</u>



राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्  
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

