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**NCERT**

**annual  
report**

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एन सी ई आर टी  
**NCERT**

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्

**National Council of Educational  
Research and Training**

# ANNUAL REPORT

## 1981-82

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NCERT

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NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

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## **ACKNOWLEDGEMENTS**

**T**HE National Council of Educational Research and Training (NCERT) is indebted to the Union Minister of Education and Culture, the Minister of State for Education, and Deputy Minister of Education for their keen interest in its affairs. The Council is grateful 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 several organizations and institutions and, in particular, to the State Departments of Education for their cooperation with the Council 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.

# 1

## **The NCERT : Its Role and Structure**

### **Role and Functions**

**T**HE National Council of Educational Research and Training (NCERT) was established on 1 September 1961 by the Ministry of Education, Government of India, by merging a number of specialized institu-

tions like the Bureau of Educational Vocational Guidance (1954), National Institute of Basic Education (1956), National Institute of Audio-Visual Education (1959), Directorate of Extension Programmes for Secondary Education (1959), etc., which it had set up for providing academic support for improving the quality of school education in India. The Council is an autonomous organization registered under the Societies Registration Act (1860) and functions as an academic adviser to the Ministry. In formulating and implementing its policies and programmes in school education, the Ministry draws upon the expertise of the NCERT. The NCERT is fully financed by the Government of India.

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

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

Research and support for research are important activities of the Council. It supports educational research by providing financial assistance to individuals and outside organizations. It also awards fellowships so that educational problems are investigated and a band of competent research workers is created. Besides supporting the research efforts of others, the Council itself conducts significant research in different areas of education. It conducts educational surveys from time to time for providing data on educational facilities and needs. It has a computer terminal for storing, retrieval and processing of data.

The training and extension activities, through which the NCERT assists States in the adoption of innovative practices, constitute its major functions. To ensure the multiplier effect, the Council has adopted the strategy of training key personnel of the State and State-level institutions in the expectation that their service can, in turn, be utilized for training a larger number of teachers and other local functionaries. To maintain closer links and liaison with the States and the Union Territories, the Council has a network of sixteen Field Offices. The Council also maintains a liaison with universities and, generally, with all institutions that have a stake in the improvement of school education.

For dissemination of educational information, the Council publishes four journals, covering different content areas and catering to a wide range of readers. **The Primary Teacher**, published both in Hindi and English, aims at giving meaningful and relevant material to primary school teachers for direct use in the classroom. **The School Science** serves as an open forum for the discussion of various aspects of science education. **The Journal of Indian Education** provides a forum for encouraging original and critical thinking in education through discussion of current educational issues. **The Indian Educational Review** provides a forum for exchange of experience in the field of educational research and innovations. A house journal, called **NCERT Newsletter**, is also published every month. In addition, each Regional College of Education publishes its own journal.

**Development** activities constitute an important aspect of the Council's work. The development of curricula and preparation of textbooks to suit the needs of the new pattern of school education are undertaken as on-going programmes. The NCERT also develops teachers' guides, students' workbooks, supplementary teaching materials and research monographs. It develops quality instructional materials and



teaching aids, science kits, laboratory equipment, educational films and radio scripts, etc., and works on improved methods of teaching techniques of evaluation. The NCERT undertakes experimental programmes, such as those in the area of non-formal education, so that sufficient experience becomes available for adopting innovative approaches to educational development. It assists States in conducting surveys and developing curricula and instructional materials for the programme of vocationalization of school education.

The NCERT's publication programme is a part of its total effort to improve the quality of school education in the country. Published in English, Hindi and Urdu, the NCERT's textbooks and allied materials are used in a large number of schools in different States and Union Territories. These books are available to all States for adoption or adaptation.

Every year, the NCERT awards 550 scholarships including 50 for students belonging to Scheduled Castes/Tribes. For this purpose, it administers tests in all the languages recognized in the constitution of India. Final year students of Classes X, XI and XII take these tests in May every year at more than 400 centres. Awardees can pursue studies upto Ph.D. in Science, Mathematics and the Social Sciences, or take up professional courses in areas like Engineering or Medicine.

The NCERT sponsors and encourages out-of-school activities for popularizing science. The organization of science exhibitions at the District, State and National levels is a part of this effort. It publishes science supplementary readers and brings out a journal exclusively for science teachers and students.

To foster the spirit of national integration, the NCERT organizes, with the help of various institutions, twelve camps for students and teachers every year. The NCERT also brings out supplementary readers under the national integration series. It also helps evaluate school textbooks from the point of view of national integration.

The Council assists professional educational organizations in the country, which undertake innovative programmes for the qualitative improvement of school education. It extends financial assistance to them for holding annual conferences and publishing journals. For the in-service education of secondary school teachers and elementary teacher

educators, the NCERT **financially supports** continuing education centres in various States and Union Territories.

The NCERT is one of the major implementing agencies for the bilateral **cultural exchange programmes** entered into by the Government of India with the Governments of other countries. It sends delegations to study specific educational problems relevant to Indian requirements and arranges training and study visits of foreign nationals. The NCERT is one of the associated centres of the Asian Programme of Educational Innovation for Development (APEID) of the UNESCO Regional Office at Bangkok. As a part of this programme, Asian educationists are 'attached' for training and other specific experiences.

### **Structures and Administration**

The **Council**, which is the policy-making body for the NCERT, has the Union Education Minister as its President and consists of the Education Ministers of all the States and Union Territories, 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 Government of India may, from time to time, nominate (no fewer than four of these have to be school teachers).

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 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** :

- (a) The Programme Advisory Committee
- (b) The Finance Committee
- (c) The Establishment Committee
- (d) The Building and Works Committee
- (e) The Managing Committees of the Regional Colleges of Education
- (f) The Educational Research and Innovations Committee.

The **Council's Headquarters** consists of (1) the Council's Secretariat, and (2) the Accounts Branch. The chief executives of the NCERT are the Director, the Joint Director, and the Secretary, who are appointed by the Government of India. The faculty consists of Professors, Readers, and Lecturers.

The **National Institute of Education**, New Delhi, has the following Departments/Units concerned with research development, training, evaluation and dissemination in specific areas :

1. Department of Education in Science and Mathematics
2. Department of Education in Social Sciences and Humanities
3. Department of Measurement and Evaluation
4. Department of Teacher Education
5. Department of Teaching Aids
6. Publication Department
7. Workshop Department
8. Educational and Vocational Guidance Unit
9. Educational Psychology Unit
10. Library and Documentation Unit
11. National Talent Search Unit
12. Planning, Coordination and Evaluation Unit
13. Population Education Unit
14. Scheduled Castes and Scheduled Tribes Education Unit
15. Socially Useful Productive Work Unit
16. Survey and Data Processing Unit
17. Vocationalization of Education Unit
18. Child Study Unit
19. Women's Education Unit

20. Comprehensive Access to Primary Education Cell
21. Developmental Activities in Community Education and Participation Cell
22. Journals Cell
23. Primary Curriculum Development Cell
24. Curriculum Group
25. Non-Formal Education Group.

The four **Regional Colleges of Education** at Ajmer, Bhopal, Bhubaneswar, and Mysore provide four-year integrated teacher education courses leading to B.Sc. Ed., B.Sc.B.Ed., and B.A.Ed., and B.A.B.Ed. degrees. (The College at Ajmer offers only four-year B.Sc.B.Ed. course). The RCEs 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. Summer School-cum-Correspondence Courses are also organized by these Colleges; these are meant for clearing the backlog of untrained teachers. The RCEs are residential institutions with adequate laboratory, library and other facilities. Each college has a Demonstration Multipurpose School attached to it, where the methodologies developed are tested in actual classroom situations.

The Centre for Educational Technology, New Delhi, was set up in 1973 to develop modalities for the use of mass media in spreading education. It undertakes research and development work in areas ranging from production of instructional films to radio programmes and related educational materials. It also organizes training programmes in educational television and school broadcasting.

The **Field Offices** in 16 States, at Ahmedabad, Allahabad, Bangalore, Bhopal, Bhubaneswar, Calcutta, Chandigarh, Gauhati, Hyderabad, Jaipur, Madras, Patna, Pune, Shillong, Srinagar and Trivandrum, have been established to provide more effective liaison with State education authorities and with State-level institutions set up for providing academic and training inputs to the school system.

## 2

### **Preview : Highlights of the Year**

**T**HE NCERT undertook during 1981-82, a variety of research, development, training and extension activities for the qualitative improvement of school education in the country. These activities were undertaken by its various Departments/Units, Regional Colleges of Education,

and the Field Offices in collaboration with State departments of education, State-level institutions, universities and other institutions/organizations concerned with educational development.

The NCERT's major efforts have been invested in developing strategies which may help in accelerating the pace of progress in the realization of the Constitutional directive of **universalization of elementary education**. The on-going UNICEF projects of Comprehensive Access to Primary Education; Primary Curriculum Renewal; Developmental Activities in Community Education and Participation, and Non-Formal Education, were further strengthened and streamlined on the basis of the experience of previous years. These projects aim at decentralized formulation of syllabi in relation to local needs, preparation of instructional material on topics which are of immediate relevance to communities, development of competencies among teachers to provide education to children in non-formal settings and implementation of strategies for developing the school as a focal institution for community development.

The UNICEF project on **Comprehensive Access to Primary Education** is being implemented in all the States/Union Territories (except in Pondicherry and Arunachal Pradesh) through 964 teacher training institutions and 19 in-service teacher training centres. About 12,600 draft modules (sets of learning materials) have been developed. Many of them have been screened and selected for production.

The UNICEF project on **Development Activities in Community Education and Participation** is being implemented through 102 community centres all over India, except in Pondicherry and Arunachal Pradesh. During the second contact programme organized in 1981-82, 15 contacts were made by 150 teachers in 50 villages.

The UNICEF project on **Primary Education Curriculum Renewal** has entered the expansion phase and is being implemented in all the States/Union Territories (except in Pondicherry and Arunachal Pradesh) through 2395 selected schools and 183 teacher training institutions.

The UNICEF project on **Nutrition, Health Education and Environmental Sanitation**, initially launched in Ludhiana, Coimbatore, Jabalpur and Baroda centres with the collaboration of institutions specializing in home science and the State Institute of Education in the case of Jabalpur, is being extended to 14 new centres in its expansion phase.

Under the programme for **Non-Formal Education** for out-of-school children, a multi-media package, guidelines for the writers and evaluators of instructional material, and instructional material for tribal children have been developed. A status study of non-formal education centres run by the Field Offices and the Regional Colleges of Education as an experimental programme was initiated.

Textual and other supplementary reading materials were developed by the various constituents of the Council to provide **education through the environment**. School teachers and teacher-educators were oriented in the teaching of science through environment, particularly at the primary level.

A survey of the educational backwardness of girls was taken up in the States identified as educationally backward. The project is being funded by the UNICEF. As part of this project, it is proposed to undertake in-depth case-studies of certain areas to determine the psychological factors influencing the **spread of education among girls**.

As in the previous years, the NCERT conducted the **National Talent Search Examinations** at the three levels, viz., Classes X, XI and XII all over the country at 430 centres. A total number of 84052 candidates appeared in the examination (48221 candidates for Class X; 6812 candidates for Class XI; 29019 candidates for Class XII).

Consultancy and training in educational and vocational guidance constitutes a major part of the NCERT programme. Apart from organizing the regular nine-month diploma course in guidance, and orientation training of key personnel of the States, facilities for counselling in the **NCERT Guidance Laboratory** were available.

A **National Test Library** is being developed in the Council to serve as a good reference library for the use of research scholars working in the field of educational measurement. It also serves as an information centre for tests in all the applied fields of psychology and attempts to identify significant gaps in availability of tests.

The eleventh **National Science Exhibition** for children was held at Bangalore from 18 to 25 November 1981. About 200 prize-winning exhibits from 22 States and Union Territories and from Kendriya Vidyalaya Sangathan were displayed and more than 400 students and teachers parti-

culated. This was preceded by State Science Exhibitions. A film on "Elasticity", was released on the occasion of the National Exhibition.

During the year, the NCERT despatched 2164 primary science kits at the rate of Rs. 230/- per kit to Jammu (812), Arunachal Pradesh (184), Madhya Pradesh (848), Kerala (296), and other institutions (24).

The NCERT has prepared four volumes of source books on **Socially Useful Productive Work**, listing for the guidance of teachers and teacher educators various activities for the different age-groups of school-going children. Volume I (for Classes I-V) and Volume III (for Classes IX-X) have been published and are being made available to teachers throughout the country. These volumes have also been translated into Hindi.

The NCERT actively collaborated with various agencies in the furtherance of the cause of **vocationalization of education** in India by extending its expertise and assistance in the conduct of different orientation programmes, workshops, seminars, etc.

Serving as the secretariat of the National Council of Teacher Education (NCTE), persistent efforts were made by the NCERT to promote the adoption of the curriculum framework to upgrade the **quality of teacher education**. Workshops for the modification of the B.Ed. curriculum were organized in the universities of Garhwal and Kumaon. The Intensive Teacher Education Development Programme (ITEP) is being pursued in Tamil Nadu, Haryana, Punjab, West Bengal and North-Eastern Hill University, at secondary level. The ITEP at the elementary level was undertaken in Gujarat and Uttar Pradesh. A teacher training curriculum is being developed at elementary level in Tamil Nadu. Teacher education curriculum is being developed at the North-Eastern Hill University for understanding the tribal culture and its educational problem. Besides, a number of textbooks for teacher-trainees are being developed at different levels.

The innovative teacher training programmes are being continued at the four **Regional Colleges of Education** at Ajmer, Bhopal, Bhubaneswar and Mysore. Training in Community Education and the organization of **Socially Useful Productive Work** are important features of these courses.

In connection with **Prem Chand Birth Centenary Celebrations** in 1981, the NCERT published and released three books on Prem Chand



(one each in Hindi, Urdu and English). The total number of school textbooks printed by the NCERT was around 200.

The Council took up the task of **evaluation of textbooks in history and languages** from the standpoint of national integration; for this tools and techniques have been developed, guidelines have been drafted, State agencies have been identified, and textbook evaluation has been commenced. Twenty-three States and Union Territories have taken concrete steps to get their textbooks evaluated.

The NCERT continues to scrutinize textbooks from the point of view of the status accorded to women in them on the lines suggested in "Identified values Commensurate with Status of Women in India." A supplementary reader in Hindi and one in Urdu containing short stories by women writers of India has been developed for the + 14 age-group.

In educational technology, the radio script programme on "Jal Chakra" (Water Cycle) won the Prize Contest for the year 1981 as an **outstanding contribution made by the Council in school broadcasting** under one of the projects on distance learning, viz., "Teaching First Language (Hindi) with the help of Radio."

The **Children's Media Laboratory** prepared slide-cum-tape (video) programmes on the themes of "Water Play", "Plants—Our Friends", "Little Fingers", "Modes of Transport", "ChaikiKahani", and "Children of Arunachal Pradesh."

During 1981-82, the **National Population Education Project** entered its second phase. In the first phase, nine States (Bihar, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan and Tamil Nadu) and one Union Territory (Chandigarh) joined the project on 1 April 1980. During the second phase, another seven States (Andhra Pradesh, Assam, Himachal Pradesh, Kerala, Orissa, Uttar Pradesh and West Bengal) and one Union Territory (Delhi) followed suit. The remaining States/Union Territories are expected to be covered by the project in its third phase, i.e., in 1982-83.

As usual, this year too, twelve **national integration camps and orientation meets** for students and teachers were organized at different places to foster in the participants spirit of national integration. An inter-State student-teacher camp was organized at Bal Bhawan, New Delhi, to

bring together teachers and students from different parts of the country, so that, through living together, they become familiar with each other's life and culture.

In the context of the growing concern for the **value orientation of education**, the NCERT has initiated a number of programmes. A status study of the present position of moral education in States and Union Territories has been completed. The NCERT financially supported the organization of a seminar on social, moral and spiritual values in education held in March 1981. A high level seminar on moral education was organized by the Council at Simla. A national workshop on development of a draft syllabus in moral education was organized at Bangalore. Basic guidelines for the development of a curriculum in moral education for different stages, were prepared. The outline of the curriculum was discussed and finalized in a working group meeting in Delhi.

NCERT's educational journals—*The Primary Teacher*, *Primary Shikshak*, *The Indian Educational Review*, *The Journal of Indian Education* and *School Science*—continued to be published with improved quality.

The sixteen **Field Offices** of the Council in different States/Union Territories continued to maintain active and useful liaison between the NCERT and the State Education Departments to provide feedback on the implementation of the programmes of the Council in the States, particularly in the experimental projects and the non-formal education centres.

Efforts were made to assist the States to prepare **development plans for educational facilities in rural areas** using the fourth All-India Survey Data. Workshops were organized in collaboration with the State Education Departments for the district and block level officers for the preparation of such plans, which gave details of habitations in which new primary schools should be opened and in which the existing primary schools should be upgraded to the middle level.

During the year, **15 research projects** were completed, four Ph. D. theses/monographs were brought out, and 91 on-going research projects were supported.

Under the Advisory Committee on **School Curriculum** the following four sub-committees have been working intensively in their areas of

concern : (i) the Sub-Committee on Health Education; (ii) the Sub-Committee on Curriculum in Languages; (iii) the Sub-Committee on Community work as an area of School Curriculum; and (iv) the Sub-Committee on School Curriculum for Scheduled Castes and Scheduled Tribes.

An **All-India Seminar on Mathematics Education** was organized in October 1981 with the following objectives : (i) to examine critically the curriculum and textual material prepared by the NCERT; (ii) to initiate research in mathematics education; and (iii) to explore ways of involving professional organizations for the improvement of mathematics education.

A National Workshop on **Home Economics** was organized during February 1982, to develop a syllabus in home economics for the school stage in the context of national development. The panels which were constituted identified the core content of an undifferentiated integrated syllabus in home economics up to Class X and of the separate subject of home economics for Classes XI and XII.

The experimental programme of **monitoring and evaluation of universalization of elementary education** was initiated in one district each in three States—Andhra Pradesh (Nalgonda District), Gujarat (Sabarkantha District), and Uttar Pradesh (Allahabad District).

The NCERT was entrusted with the **training of UNESCO fellows** from Bhutan and Afghanistan in various areas of audio-visual education, viz., maintenance, operation and use of audio-visual equipment, and preparation of filmstrips and other teaching aids.

# 3

## Early Childhood Education

**T**HROUGHOUT the world, there is now a growing awareness of the crucial significance of the early years in the optimum, all-round development of the child. A number of research studies and intervention programmes that focus on the pre-school child indicate

that, as the foundation for later development is laid in the early years, any impoverishment suffered at this stage is likely to damage severely the subsequent development of the personality of the child.

Early childhood education in India is assuming significance both for the direct influence it has on the future growth of the child and the potential contribution that it makes to the programme of universal elementary education. The contribution to universalization is two-sided : a child receives care, and his young caretaker, usually a girl, is thus free to attend school; and a child gets the chance to become familiar with the ideas of constructive play and to develop desirable behavioural patterns. Having recognized its significance, the NCERT has been working in the area of early childhood education for quite some time.

The scope of the Children's Media Laboratory, a programme being assisted by the UNICEF, has been widened by encouraging State-level development of inexpensive but educationally potential materials. Such development was confined in the initial stages to the Centre level.

The early childhood education programme now being implemented has two dimensions : initiation of programmes undertaken as part of the Children's Media Laboratory, and support to State-level early childhood education programmes. Financial support for both components is being provided by the UNICEF.

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

The aim of the project on **Educational Play Materials** is to demonstrate how effective learning can take place by using folk toys and other inexpensive and locally available materials. The project has four dimensions :

- (a) to conduct a systematic survey of the play materials and games available in the States;
- (b) to explore the educational potential of these toys and to develop manuals for teachers to enable them to use these as effective teaching media;
- (c) to suggest ways in which these toys need improvement; and
- (d) to devise new toys out of locally available materials.

Systematic surveys of available low-cost play materials and games for young children were carried out during the year in the States of Orissa, Kerala, Maharashtra, and Rajasthan. The following **print and graphic materials** were prepared for children and teachers :

1. two picture story books ;
2. two books on 'form'—one on the 'cylinder' and another on 'four-sided figures' ;
3. a book on children's games ;
4. a set of 40 cards (this has been printed) to enhance language and classification skills.

A set of books for fostering sense perception in young children was under preparation.

#### *Audio-programmes*

The audio-programmes component of the project includes the monitoring and evaluation of the appropriateness of the broadcasts that All-India Radio transmits for young children, and the development of prototypes. During the year, more suitable radio programmes broadcast from some selected AIR stations were monitored. 58 prototypes of audio-programmes—30 in Hindi and 7 each in Oriya, Bengali, Punjabi and Kannada—have been developed. A three-day national seminar on the preparation of audio-programmes for young children was also organized.

Projected aids in the form of slide-cum-tape programmes were prepared on the themes of 'Water Play', 'Plants—Our Friends', 'Little Fingers', 'Modes of Transport', 'Chai Ki Kahani' and 'Children of Arunachal Pradesh'. A video-programme on 'Modes of Transport' was also prepared in collaboration with the Centre for Educational Technology.

#### **Early Childhood Education Activities at the State Level**

The Master Plan of Operation (Unicef-assisted Projects) 1981-83, has added a new dimension to the early childhood education programme. It involves, among other things, the development of State-level capabilities to undertake meaningful programmes of early childhood education. The project envisages training programmes for teacher educators and

orientation courses for State-level resource persons, besides the development of relevant literature.

During the year, an operational plan was developed and negotiations were undertaken with the States for initiating the programme.

### **Orientation Programmes**

An orientation programme for training resource persons for the three States of Maharashtra, Rajasthan, and Orissa was conducted during March 1982. The States were requested to depute one specialist each in early childhood education/child development, children's literature, children's illustrations, children's music, audio-tape production and photography. Sixteen participants attended the programme.

### **Evaluation of CML Materials**

A team from the NCERT went to Bastar for initial work in relation to the evaluation of CML materials. Tokapal Block was surveyed, Balwadis were identified, and evaluation tools were tried out. The aim is to try out the materials on the children of the Anganwadis of the ICDS project and to measure their impact.

#### ***(i) Training Programmes***

The following training programmes were organized in the area of early childhood education.

Three programmes of six days each were held at Nagaland, Arunachal Pradesh and Tamil Nadu for teachers from tribal areas with a view to :

- (a)** developing programmes for pre-school children through working with them ;
- (b)** developing the interest of teachers in preparing and using low-cost play materials; and
- (c)** disseminating information among other teachers and the parents of the children.

The details of these training programmes are indicated in the table at the following page.

<i>State</i>	<i>No. of Participants</i>	<i>Venue</i>	<i>Dates</i>
Nagaland	30	Kohima	15-20 May 1981
Arunachal Pradesh	36	New Itanagar	4-9 May 1981
Tamil Nadu	36	Coimbatore	24-29 August 1982

At the request of the Director of Education, Arunachal Pradesh, a one-month training programme in early childhood education was organized at the NCERT for the teachers of Arunachal Pradesh. Eighteen participants, who had come with a supervisor took the course.

*(ii) Regional Training Programme for Teacher Education*

A training programme of fifteen days' duration in early childhood education was held at Sophia High School, Bangalore, from 16 to 30 September 1981. The objective of the programme was to focus attention on the role of the teacher in fostering the child's development. Twenty-eight participants from Karnataka State attended the programme.

*(iii) Training Programme for Nehru Bal Vikas Samiti*

A training programme in early childhood education for Nehru Bal Vikas Samiti was held from 22 to 26 June 1981, at the IIT School. This programme was organized at the request of the Samiti. The training covered the following aspects :

- (a) different aspects of child development ;
- (b) development of low-cost play materials for fostering child development; and
- (c) practical activities, including games, songs, puppet making and developing material for concept development.

**Research**

A number of research studies, the object of which was to provide information which would be useful for implementing meaningful programmes of early childhood education, were initiated/continued during the year. These included :



**(i) *A Feasibility Study of the Home Intervention Programme of the Disadvantaged Children of Classes I & II***

The objectives of the study were :

- (a) to establish a working relationship between the school and the home, particularly with the mothers ;
- (b) to help teachers acquire the competence to adopt a more child-centred approach ;
- (c) to help parents understand the importance of facilities for play and language provided in the home and their effect on school achievement ;
- (d) to help mothers interact more meaningfully with their children and help them acquire a rational, logical approach in day-to-day living;
- (e) to help parents understand the importance of encouraging children to acquire a positive self concept; and
- (f) to help parents make the home atmosphere playful.

The data collected were processed, and the writing of the report initiated.

**(ii) *Cognitive Development of Indian Children of Ages 2-13 Years—A Longitudinal Study***

It is felt that it would be necessary to base the development of curriculum in India on a valid theory of cognitive development. In this context, it is felt that the work of Piaget, which has won world-wide recognition, may provide a useful theoretical framework. In the light of this, it was considered vital and practicable to undertake a study covering different areas of logical thinking in children, with the hope that the data which would become available would make possible crucial innovations in the field of curriculum development. More specifically, the research looked into Piagetian stages of cognitive development in Indian children for the ages 2-13 and in the process studied sensory motor structures, notion of causality, classes, numbers, distances and relations, conservation of quantities, distances and surfaces, time, movement and speed and notion of space.

The study was commenced in November 1978. Children of four age-levels were selected for study, i.e., 2, 5, 8, 11. The study is longitudinal

in nature. The tabulation of the data has been completed and their analysis is in progress.

*(iii) Researches in Child Development*

The main focus of this book which is meant for research scholars and post-graduate students is on research undertaken on the development of children from birth to adolescence. It will provide ready reference to workers in this area. With this view various research workers in the field have been contacted to provide contributions. The work of editing of the manuscripts and correspondence with the authors is in progress.

**National and State-Level Toy-Making Competition for Pre-Primary and Primary School Teachers**

Competitions are organized at two levels, first at the State level, and later, at the national level. At the State level, the programme was carried out by the Field Advisers of NCERT in areas under their jurisdiction. For ensuring maximum participation wide publicity was given through AIR, local newspapers, magazines, etc. In addition, brochures containing detailed information regarding the competition were circulated among schools in each State/Union Territory. The competition was open to teachers teaching up to Classes IV/V. The conditions stipulated for the competition were :

- (a) The toys must be the original work of the teacher ;
- (b) they should contain education value for the children of pre-primary and primary schools ;
- (c) they should be prepared from locally available waste or low-cost material ; and
- (d) a brief write-up about the toy must also be developed.

The second phase of the programme, viz., the national-level toy making competition was completed by holding the competition at NCERT from 3 to 5 February 1982. Sixteen first-prize winners from State-level competitions participated in the programme.

**Art Experiences for Young Children**

The objectives of the programme are to introduce young children—both normal and disabled—to creative arts, and to use creative art in the

**learning situations. Work on this project is being undertaken at the following schools/places : Bal Bharati Air Force School, School for the Blind Children, School for the Deaf and Dumb Children, and Bhatti Village.**

# 4

## **Curriculum, Textbooks and Supplementary Readers**

**T**HE development of a model syllabus in the different subject areas continued to receive the Council's attention. This work is being undertaken by the departments concerned with syllabus formulation and the preparation of relevant instructional materials. In addition, the

Curriculum Group of the Council undertook a number of activities concerned with curriculum development.

### **Advisory Committee for School Curriculum**

An Advisory Committee on School Curriculum was constituted. Under it, there are, at present, the following four sub-committees working intensively in their areas of concern :

1. The Sub-Committee on Health Education
2. The Sub-Committee on School Curriculum for Scheduled Castes and Scheduled Tribes
3. The Sub-Committee on Curriculum in Languages, and
4. The Sub-Committee on Community Work as an Area of School Curriculum.

### **Committee on Community Work as an Area of School Curriculum**

In pursuance of one of the recommendations of the Advisory Committee on School Curriculum, the NCERT constituted a Committee on Community Work as an Area of School Curriculum under the Chairmanship of Dr. B.K. Roy Burman, Professor, Department of Rural Studies, Visva Bharati, Shantiniketan (W.B.), with a two-fold purpose, namely :

- (a) to work out details about the scheme of community work as an area of school curriculum ; and
- (b) to prepare a comprehensive document to be brought out in the form of a brochure on community service.

In its first two meetings held during the year 1981-82, the Committee discussed the theoretical framework and decided upon a broad strategy for working out the details of the scheme.

### **Effective Use of School Curriculum**

This is an experimental-*cum*-developmental project aimed at developing and experimentally studying a suitable model which could help working primary teachers in gearing effectively the school curriculum to the development of the child as a learner, as a person, as a citizen and as a worker. During the first two months of the year 1981-82, the project

completed its developmental phase, wherein appropriate material was produced with regard to the objectives of education, the psychology of the child, teaching-learning strategies, teaching skills, curriculum content analysis, non-bookish curriculum content, teacher behaviour and pupil evaluation. The experimental phase of the project was launched with the beginning of the new session in schools by orienting the headmasters and teachers of the experimental and the control group schools. The collection of data, and its scoring with regard to the experimental and dependent variables is under progress. Casual dialogue with the experimental school teachers reveals that the material and the guidance provided to them are of great help to them in making their teaching more objective and development-oriented. They are able to perceive and utilise the curriculum content and the teaching-learning process better in the context, of the development of the child.

In addition to the seven publications brought out in this connection till the end of 1980-81, the following brochures were further published during 1981-82 :

1. Evaluation of Pupil Development (Hindi)
2. Pupil Development Evaluation Scale—Evaluation Booklet (Hindi)
3. Co-curricular Activities for Effective Curriculum Transaction
4. Analysis of Curriculum Content in Relation to Objectives, Psychology and Teaching-learning Strategies—Science, Mathematics, Hindi, Social Studies (Hindi) (4 Volumes).

### **Curriculum Load at the Secondary Stage**

A project to ascertain the extent of the curriculum load on students studying in Classes IX and X has been undertaken. During 1981-82, tools for collection of data from the field were finalized and were subsequently tried out to know the opinions, reactions, etc., of the teachers and the students. The Curriculum Group is now engaged in the tabulation and analysis of the data.

### **Implementation of Curriculum under the 10+2 Pattern of Education**

During 1981-82, the project entitled, "A Study of Implementation of Curriculum under the 10+2 Pattern of Education" was initiated. The project aims at studying the difficulties and problems being faced by the Secondary Education Boards and Higher Secondary schools in the imple-

mentation of the curriculum. The study is likely to provide feedback to the curriculum planners for the improvement of existing curricula. In the first phase of the project, two meetings of the experts were held to chalk out the detailed plan and to prepare appropriate tools for data collection. During 1982-83, the relevant data will be collected and an on-the-spot study will be made of some selected schools.

### **Enhancing the Role of the Arts in Formal and Non-Formal Education**

Is the title of a research-*cum*-development project which aims at systematically developing a classroom teaching-learning strategy in the arts and at integrating the arts with other subjects on the basis of the "process-experience approach" to teaching. In this connection, at the initial stage, ten local primary schools have been selected for developing teaching units with the purpose of integrating the arts with the other subjects. A meeting of these teachers and other experts was conducted in January 1982, wherein four sample teaching units, two each for Classes III and IV were developed and analysed in respect of expected competencies, behavioural objectives and suggested activities. These teachers will be oriented in various processes of teaching art in the classroom situation.

The Curriculum Group of the NCERT has also been working on a few projects concerning the development and implementation of a curriculum in the arts. These are as given below.

Under the project "**Developing a Draft Curriculum in Different Areas of the Arts at Different Stages of Education**", a review-*cum*-working group meeting in the area of the performing arts was organized to review the conceptual framework in respect of the performing arts and to develop a strategy of integrating the various arts at the middle and or secondary stages of education.

The draft of a framework for the visual arts, comprising the approach and the objectives of the visual arts at the +2 stage, was also developed. This will help in working out the detailed curriculum under various visual arts activities.

### **Curriculum Bulletin**

The *Curriculum Bulletin*, a quarterly publication, entered its second

year of publication during 1981-82. The usual four issues of the Bulletin were brought out during the year. The first issue of the year was a special number devoted to "Curriculum for a Learning Society". The second issue was devoted to a discussion of the "Challenges" which we are facing today in the field of curriculum. The third issue carried reports about the "Implementation of the Curriculum" in some parts of India. The fourth issue carried articles like "Cost and Curriculum" and "Emerging Trends in Teacher Education Curriculum".

### **Curriculum Resource Centre**

A Curriculum Resource Centre has been set up. Important information and material from various curriculum agencies within the country and abroad have been compiled. Periodically, special brochures are brought out by the Centre. During the year 1981-82 two brochures on Reference Materials on School Curriculum were brought out. A select annotated bibliography on school curriculum is included in the brochures.

### **SOCIAL SCIENCES AND HUMANITIES**

In social sciences and humanities, the NCERT deals primarily with the development of the curriculum and the preparation of textbooks and other instructional materials. It organizes training and orientation programmes for key persons in the States. Research projects that have a direct bearing on the improvement of classroom instruction are also undertaken. These activities cover the entire school stage from Class I to Class XII.

The main areas of work in the social sciences are environmental studies, social studies, history, geography, civics and citizenship education, political science, economics and sociology. In the humanities, the NCERT is concerned with Hindi (as mother tongue and as second language), English, Urdu and Sanskrit. It also works in the areas of art education, moral education, yoga and adult education.

### **Environmental Education**

The materials for the textbook prescribed for Class IV in Environmental Education have been finalized. It may be stated that the syllabuses for social studies at the primary level (Classes III, IV, and V) have been changed since the acceptance of environment as the focus in school instruction at the primary stage of education. The textbook for Class III



under the new pattern was published a few years ago. The materials for the textbook for Class V are under preparation.

## **History**

The prescribed textbook for Classes IX and X in the area of history, entitled *The Story of Civilization* was published in two volumes a few years ago. As it was felt that a revised edition of this book should be brought out, a workshop for reviewing it was held, in which the content experts, teacher educators and school teachers from different parts of the country participated. While revising the book, the decisions of the workshop will be taken into account.

The Department of Education in Social Sciences and Humanities is developing a series of 80 panels under the project entitled "India's Struggle for Independence—Through Visuals and Documents" in collaboration with other Departments/Units of the NCERT, like, for instance, the Department of Teaching Aids. The work will be completed in December 1982.

## **Civics**

The manuscript of the book entitled *Conducting Youth Parliament*, prepared in collaboration with the Department of Parliamentary Affairs has been finalized. The study on the 'Identification of Terms and Concepts in Civics' (Classes IX and X) has been completed. These materials will be sent to press very soon.

## **Economics**

Materials for a teaching unit on Productivity Education have been finalized. A study on the "Economics Terms and Concepts" used in the social sciences textbooks for Classes VI, VII and VIII is being done.

## **Sub-Committee on Curriculum in Languages**

The joint meeting of the members of the three working groups appointed by the Sub-Committee on Curriculum in Languages prepared two questionnaires, one for a review of the language curriculum in different States and Union Territories and the other for a review of the teachers' education in languages. The questionnaires were sent to all the States

and the Union Territories. The filled-in questionnaires have been received and are being tabulated, and the final report is under preparation.

### **Hindi as Mother Tongue**

A set of five Supplementary Readers is being prepared by the Council for Classes I—V. The first drafts of the supplementary books for Classes I and II have already been revised.

An orientation programme for resource persons of the Kendriya Vidyalaya Sangathan (KVS) primary schools of Madhya Pradesh was held at Bhopal in December 1981 to orient them in the new trends of teaching the mother tongue (Hindi) and to familiarize them with the new series of textbooks *Bal Bharati* for Classes I—V.

### **Middle and Secondary Stage**

Three books on Hindi grammar and composition were prepared. These are meant for the middle, secondary and higher secondary classes, respectively. The book for the middle classes is already in press.

Revision of Hindi prose and poetry textbooks for the higher secondary classes has been taken up. Questionnaires on these books were sent to the Hindi teachers of the Kendriya Vidyalayas to get their reactions about the suitability of the lessons for students of Classes XI and XII. The feedback received was discussed in a workshop.

A meeting of a working group was convened to discuss and review the present syllabus in Hindi grammar for Classes IX and X, adopted by the Central Board of Secondary Education (CBSE). The syllabus was revised and finalized. The manuscripts of *Pallav* and *Manjari* textbooks of prose and poetry for Classes IX and X, were also discussed in the meeting. It was decided that books, in revised form, should be prescribed by the CBSE for Classes IX and X.

An orientation programme was organized at the RCE, Bhopal, for the primary and secondary school teachers of the Kendriya Vidyalayas of Madhya Pradesh. About 40 teachers participated in the course. They were made acquainted with the new techniques and devices for the teaching of Hindi as mother tongue.

## **Sanskrit**

The following books, workbooks and supplementary readers were prepared :

### *Books/Workbooks*

1. Swasti Abhyas Pustika—Part III
2. Swasti Abhyas Pustika—Part IV
3. Swasti Sandarshika (Teachers' Guide in Sanskrit) for Classes V to VIII
4. Sanskrit Grammar for Classes V to VIII.
5. Revised edition of the Sanskrit textbook Rangni for Class X. The first draft of the revised manuscript has been prepared during the year.

### *Supplementary Readers*

1. Mahabharatam
2. Hitopadeshah
3. Panchtantram
4. Veda parijat

In addition, the draft form of charts for teaching Sanskrit Grammar was developed and finalized during the year.

Tapes for a model recitation of Sanskrit verses have been prepared for the use of school students, in two series :

- (i) Chhandoratna Mala (metre-wise). Verses of 14 selected metres have been recorded for model recitation.
- (ii) Sanskrit Kavya Dhara (representing the different forms of Sanskrit poetry, such as Vedic, Classical and Geeti, etc.)

In these tapes, both the styles of recitation prevalent in the South and the North have been represented.

## **Extension Programme**

The Department of Education in Social Sciences and Humanities organized a 10-day national seminar-*cum*-orientation programme on problems of Sanskrit teaching at the State Council of Educational Research and Training, Patna, from 15 to 24 March 1982, to acquaint teacher educators with the latest trends and thinking on different aspects of Sanskrit teaching. Twenty-five participants, including teacher educators and subject experts from a number of States, such as Andhra Pradesh, Gujarat, Tripura, New Delhi, Bihar, Rajasthan, Madhya Pradesh, Uttar Pradesh, and Punjab, attended the programme.

## **English**

In the year under report, the following books were prepared :

### *For A Course (Class X)*

1. English Reader
2. Enrich Your English—Supplementary Reader
3. English Workbook

These books were brought out by the CBSE in collaboration with the NCERT and the CIEFL.

### *For B Course (Class X)*

1. Steps to English—V
2. Steps to English—V, Supplementary Reader
3. Workbook Steps to English—V

These books are prescribed in the high schools of Delhi Administration and those schools that are affiliated to the Central Board of Secondary Education.

### *For the Open School of the CBSE*

1. Textbooks, I & II
2. Supplementary Readers, I & II

## **Urdu**

An Urdu Committee with Prof. Gopi Chand Narang as its Chairman, was appointed to consider various issues in regard to the preparation of syllabus, Urdu language teaching, and textbooks. The Committee organized a workshop to finalise the syllabus and guidelines for writing Urdu language textbooks for Classes I to XII. The Committee also organized a few workshops to analyse the Urdu textbooks used in the various States either as mother tongue or as a second language. The Committee has already assigned to writers the work to write textbooks for Classes I, II, VI, VII & IX. Titles for four supplementary readers have also been decided upon and authors for each have been commissioned to write them.

## **Moral Education**

The promotion among school children of moral values has received Council's attention. In a seminar organized by the NCERT at Simla in May 1981, basic issues of moral education were discussed and it was desired that systematic work in the field of moral education should be taken up by the NCERT at the national level. Consequently, a national workshop was organized at Bangalore in November 1981, for the development of guidelines for the curriculum in moral education. A guide for the development of curriculum in moral education has been prepared. It lays down the objectives of moral education at different school stages and also provides guidance in the form of general principles of imparting moral education in schools. The work of developing class-wise syllabuses in moral education is now to be taken up.

## **SPECIAL PROJECTS**

### **Adult Education**

The NCERT has taken up some on-going projects in the areas of adult education. It is collaborating with the State Resource Centre, Haryana. A set of instructional materials for the illiterate industrial workers of the State of Haryana has been prepared. The set consists of a primer, an instructor's guide, a workbook and a collection of stories.

In collaboration with the State Directorate of Panchayats and Social Welfare, Madhya Pradesh, the NCERT has finalised a set of materials to be used by the neo-literates in the State of Madhya Pradesh. The

materials developed for the State include a textbook, an instructor's guide and a workbook.

A two-week orientation programme for District Adult Education Officers and Project Officers was organized at Indore by the Directorate of Panchayat and Social Welfare in collaboration with the NCERT. An orientation programme for the project officers in the State of Haryana was organized by the SRC, Haryana, at Rohtak in collaboration with the NCERT.

### SCIENCE AND MATHEMATICS

The NCERT continued to play an important role in :

- (a) propagating a concern for the preservation of the environment and its use as a resource for science instruction, and in disseminating the concept of environmental education ;
- (b) developing the curriculum materials in science and mathematics, thereby more or less completing the cycle of preparing textual materials up to the senior secondary stage of education; and
- (c) wider introduction of health and nutrition education.

### Environmental Education Conference

A major activity during the year 1981-82 was the active participation of the NCERT in the International Conference on Environmental Education. This conference was organized in Vigyan Bhavan from 16 to 20 December 1981. A lead paper entitled "Environmental Education at School Level" and a document "Environmental Education and the NCERT" were prepared, printed and presented in the conference. An exhibition displaying the variety of materials that the NCERT has produced on environmental education, was also organized.

### Mathematics Education Seminar

An all-India seminar-cum-workshop on mathematics education was organized in October 1981 with the following objectives :

- (a) to examine critically the curriculum and the textual materials prepared by the NCERT ;
- (b) to initiate research in mathematics education ; and
- (c) to exploring ways of involving professional organizations for the improvement of mathematics education.

A number of recommendations have been made by the seminar-cum-workshop, which will prove useful for future work in mathematics in the Department.

### **Nutrition and Health Education**

Under the Nutrition and Health Education Projects, being funded by the UNICEF, 14 new States/Union Territories have been included in the programme. Moreover, through the existing five Centres, the wider-expansion phase of the project is being implemented in the States of Tamil Nadu, Punjab, Madhya Pradesh and Gujarat. In order to make the programme more effective, community contact has been included as one of the essential components so that awareness about formation of good habits is supported by good practices in the community. Some of the major aspects of community contact programme are :

- (a) use of clean and safe water for drinking ;
- (b) proper facilities for urination and defecation ;
- (c) cleanliness of the surroundings ;
- (d) personal hygiene ;
- (e) immunization of children against diseases; and
- (f) propagation of breast feeding.

Although poverty in the rural areas is one limiting factor in the implementation and success of the programme, an effort is being made to create an awareness about desirable practices of personal and social hygiene and nutrition.

### **Integrated Science Education**

Two orientation programmes for State-level key personnel were organized to explain the philosophy of the integrated science approach, to gather information about its implementation, and to exchange ideas for improvement of the programme.

### **Science Exhibitions**

The NCERT continued to organize the National Science Exhibition for Children and assist in the organization of State-level science exhibitions. In 1981-82, the National Science Exhibition was organized in

Bangalore jointly by the NCERT and the Karnataka Government. The theme of the Exhibits was "Science in Our Environment". About 200 exhibits were displayed, most of which were State-level prize winners. Popular lectures and a visit to the Vishwesaraiya Industrial and Technological Museum were also organized on this occasion.

### Textual Materials and Teachers' Guides

The following textbooks, teachers' guides, and supplementary reading materials, reached different stages of development, as detailed under :

<i>Subject</i>	<i>Title</i>	<i>Class</i>	<i>Stage of Development</i>
Environmental Studies	Teachers' Guide for Environmental Studies, Part-II	III	Published
	Teachers' Guide for Environmental Studies, Part-II	V	Under print
Physics	Teachers' Guide for the Physics Textbook for Senior Secondary Classes	XII	Draft prepared
	Test Items for Senior Secondary Classes	XII	Under print
Chemistry	Project-oriented Practicals in Chemistry	XI-XII	Published
	Concept-centred Experiments in Chemistry	XII	Being published
Biology	Test Items in Biology for the Senior Secondary Stage	XII	Printed
Mathematics	Textbook	V	Ready for printing
	Question Bank	X	Draft prepared
	Teachers' Guide	IX	Edited and ready for printing
	Teachers' Guide	X	Draft prepared



## **Research Projects**

The academic staff continued to work on a number of research projects and innovations. Some of these were :

- (a) an experimental project to develop need-based community-oriented self-learning instructional materials in biology ;
- (b) individually guided system of instruction ;
- (c) project work in physics ;
- (d) concept-centred experiments at the secondary and senior secondary levels in chemistry.

## **Consultancy Programmes**

The Department of Education in Science and Mathematics provided consultancy services on behalf of the UNESCO for up-grading the basic science curricula related to technical vocational education for six least-developed countries, namely : Afghanistan, Bangladesh, Bhutan, Laos, Maldives and Nepal. A training programme for teachers from these countries was organized at the R.C.E., Mysore, in which the physics and chemistry faculty members of the RCE participated. From the Department of Education in Science and Mathematics, Prof. A.N. Bose worked as a consultant to the course.

Two faculty members of the Department were deputed by the Government of India, Ministry of Education to Assam, to make an on-the-spot study of the problems of science and mathematics education in the North-Eastern States and Union Territories. They formed part of a bigger team. The report was submitted by the team to the Government of India after the on-the-spot study.

Consultancy was also provided to a number of States and educational organizations, some of them being :

<i>States/Organizations</i>	<i>Purpose of the Consultancy</i>
(1) Government of Sikkim Gangtok	Crash primary teachers programme and programmes of the educational technology cell
(2) Arunachal Pradesh	Orientation course-cum-workshop on teaching science through environment
(3) Kendriya Vidyalaya Sangathan	In-service education course for primary teachers of the Delhi region in mathematics and environmental studies
(4) SCERT, Meghalaya	Workshop for developing a model textbook in science
(5) Jammu & Kashmir	Seminar-cum-workshop to discuss problems of new science curriculum from classes III to VIII and meeting of planning group for training of resource persons.
(6) Open School (CBSE)	Curriculum development-writing and editing of lessons
(7) Central Tibetan School	Orientation course for primary school teachers

## WOMEN'S EDUCATION

During the year the following workshops were organized :

### Workshop on Home Economics

A national workshop on Home Economics was organized by the Women's Education Unit from 4 to 6 February 1982, to develop a syllabus in Home Economics for the school stage of education in the context of national development. The workshop was attended by the deans of the faculties of Home Science from Calcutta, Madras, Delhi, Baroda and Agra, besides other participants from various prestigious institutions of Home Science/Home Economics all over the country.

Three panels were constituted for developing the syllabus for the primary, middle, and lower secondary, and higher secondary stages.

These panels identified the core content of the undifferentiated integrated syllabus in Home Economics up to Class X. The content was developed within the framework of the NCERT's document "Ten Year of School Curriculum—A Framework" for classes up to the secondary stage, and for Home Economics as a separate subject for Classes XI and XII. The workshop also highlighted the need for development of teaching materials and teachers' guides in Home Economics on the lines of the syllabus frame thus developed.

### **Workshop on the Sociology of Change in India**

A workshop, in which twenty-one persons from outside NCERT and five faculty members from the Council participated, was organized. The participants, most of whom were Professors, were drawn from different regions of the country. The groups that were constituted recommended the need for bringing out a teachers' handbook on "Social Change in India" and material for the handbook was partly edited in the workshop; and the desirability of developing a comprehensive volume for "Social Change" in the form of a "Book of Readings" for the sociology teachers.

### **Workshop on Women and Law**

A workshop intended to consider the theoretical base and structure for a supplementary reader for the 14-18 year age-group was organized. It was attended by the deans of the faculties of Law from Delhi, Calcutta and Baroda. The participant's contribution has provided the outline of the infrastructure for the supplementary reader. The participants also highlighted the need for promoting "legal literacy" to be promoted through education. The Report is being duplicated and circulated for comments.

### **Workshop on Women's Movement in India**

This workshop has developed a format for a supplementary reader entitled "Women's Movement in India—From Social Welfare Towards Equality."

## **TEXTBOOK EVALUATION**

Consequent upon the recommendations of the National Integration Council and the Minority Commission, the Ministry of Education, Government of India, have initiated the process of evaluating textbooks from the standpoint of national integration. To begin with, evaluation is confined to the scrutiny of school textbooks in the subjects of history and languages. The programme has been decentralized and States and Union Territories have been requested to undertake the programme at their own level. The NCERT was asked to coordinate the programme and prepare guidelines and tools for evaluating the textbooks.

The NCERT prepared the first draft of the guidelines for evaluating textbooks in history and languages. These drafts were vetted by an expert committee nominated by the Union Minister of Education, and

were discussed in a conference of the Officers Incharge of the programme in various States and Union Territories, held at New Delhi in September 1981. The procedure for carrying out the programme was also finalized in the conference. The guidelines and tools for evaluating textbooks, and the suggested procedure, were sent to the agencies in the States and Union Territories which have been made responsible for the programme of evaluation of textbooks.

Twenty-one States agreed to undertake the programme. All the Union Territories, except those which use textbooks prepared by the NCERT or by their neighbouring States, have also agreed to take up the programme. The programme is at various stages of progress in the different States/Union Territories. The States/Union Territories of Punjab, Himachal Pradesh, Goa, Daman and Diu, and Delhi, completed the work during the period under report. The programme was partially completed in the States/Union Territories of Rajasthan, Gujarat and Andaman and Nicobar. The meetings of experts for the finalization of the evaluation reports were organized by the States of Haryana and Maharashtra and the Central Board of Secondary Education.

At the instance of the Ministry of Education, the NCERT also decided to undertake the evaluation of its own textbooks in history and languages. The relevant textbooks were sent to the evaluators for evaluation.

The Ministry of Education and Culture have set up a Steering Committee at the national level which would, among other things, consider the evaluation reports from the States/NCERT, review the progress of the programme and indicate policy guidelines for future action. The first meeting of the Committee was held on 20 March, 1982. The scope and the functions of the Committee were discussed and the progress of the programme of evaluation of textbooks in the various States was reviewed.

# 5

## **Universalization of Elementary Education**

**U**NIVERSALIZATION of elementary education is a task of the highest priority in educational development. While the provision of facilities is the primary responsibility of the States, the Government of India has been assisting the States' effort by extending financial

support for the organization of Non-formal Education as a major strategy for providing education to children who either cannot enter in the formal system or drop out of it prematurely.

The NCERT has been providing research and development support, primarily with the purpose of developing more situational strategies to reach the goal of universalization. The efforts of the Council are multi-directional : implementation of experimental projects with the collaboration of the State Governments, training of key personnel, preparation of relevant and meaningful instructional materials, consultancy services to the States, etc. The efforts made during the year in these and other directions are discussed in the paragraphs that follow.

The Council continued to receive financial assistance from the UNICEF for the implementation of the following experimental projects :

- (a) Comprehensive Access to Primary Education
- (b) Primary Education Curriculum Renewal
- (c) Developmental Activities in Community Education and Participation
- (d) Nutrition/Health Education and Environmental Sanitation
- (e) Early Childhood Education.

These projects are being implemented with the objective of developing approaches that will help in the early realization of the goal of universal elementary education.

#### COMPREHENSIVE ACCESS TO PRIMARY EDUCATION

“Comprehensive Access to Primary Education” (CAPE) is a part of the effort to meet the minimum educational needs of a large number of children hitherto unreached, and to achieve the target of enrolling out-of-school children in the age-group 9-14 in part-time non-formal education. The main objectives of the project are : to develop a non-formal approach to education and to increase the number of children, especially those belonging to the disadvantaged sections of the society, participating in non-formal education activities organized as an alternative to formal schooling, and to evolve flexible work-based decentralised curricula and learning materials (learning episodes) relevant to the needs and life

situations of diverse groups of children in the above-groups, not only for non-formal but also for formal channels of education.

The basic activities related to the project are being carried out in three **major phases**. The first phase of the project includes all activities leading to the development and production/publication of learning episodes in sufficient quantity and variety. The second phase includes activities related to the establishment and functioning of non-formal learning centres. The third phase includes activities leading to the establishment of evaluation centres and accreditation services.

Agreements for the implementation of the project were executed by all the States and Union Territories except the Union Territory of Arunachal Pradesh and Pondicherry. The States of Jammu & Kashmir, Tripura and West Bengal and the Union Territories of Dadra & Nagar Haveli and Lakshadweep are yet to commence project activities. In all the remaining States and Union Territories, the activities related to the first phase of the project have been in progress.

The major activities carried out under the project during the year 1981-82 include the following :

- (a) Training of RDRC (SIE/SCERT) team members in the methodology of developing and processing learning episodes.
- (b) Training of principals/teacher/educators of elementary teacher training institutes (TTIs)/in-service teacher training centres (ITTCs), and primary school teachers on the methodology of developing and processing learning episodes.
- (c) Training of district- and block-level Education Officers on the planning and management aspects of the project (CAPE).
- (d) Screening, selection and processing of learning episodes developed by teacher educators/teacher trainees of TTIs and teachers.
- (e) Development of syllabus frames and instructional materials for implementation of the new pattern of elementary teacher education.

About 984 elementary teacher training institutes (TTIs)/in-service teacher training centres (ITTCs) in the country are involved in the implementation of the project. Under the project, a series of **training programmes** and workshops for training the RDRC (SIE/SCERT) team

members, teacher educators and Education Officers were conducted during the year 1981-82. 443 principals of TTIs/ITTCs were oriented in the academic and administrative aspects of the project. 1,719 teacher educators and 525 teachers were trained in the methodology of developing learning episodes, while 1,165 teacher educators were trained on the methodology of processing of learning episodes.

Under the project, 14 States and 3 Union Territories have revised the elementary teacher education curriculum on the lines recommended by the National Council for Teacher Education (NCTE), and 13 States and 7 Union Territories have introduced the training-*cum*-production mode in TTIs for development and try-out of learning episodes, 1,049 district- and block-level Education Officers were oriented to the planning and management aspects of the project.

About 12,000 draft learning episodes (in the form of modules and capsules) were developed by teacher educators/teacher trainees of TTIs and teachers. Out of this, about 4,000 modules were screened and selected for further processing, and about 300 modules were processed for publication. In addition to the training of teacher educators and Education Officers, about 90 RDRC team members were trained in the methodology of developing and processing of learning episodes.

## PRIMARY EDUCATION CURRICULUM RENEWAL

Primary Education Curriculum Renewal (PECR), which was initiated in 1975-76, is being implemented in 30 States/Union Territories with UNICEF assistance. The project aims to develop such curricula that are relevant to the child's environment and to his life style. The long-term objective is to increase the meaningfulness of primary education through gradual infusion into the elementary school curriculum of innovative ideas tested in experimental educational programmes.

The above objectives of the project were formulated in the context of the effort to achieve the goal of universalization. It was felt that to achieve this goal it was imperative to arrest the high rate of drop-outs among children, particularly among girls and children in rural, tribal and urban poverty areas. For this purpose, expansion of educational facilities should be accompanied by qualitative adjustment of the curriculum to suit the life styles of the children and the socio-economic opportunities likely to be available, so as to make education more



interesting and meaningful. Some of the outstanding features of the project are :

- (a) evolving diversified and relevant curricula based on detailed surveys of the project areas;
- (b) using environment for meaningful learning;
- (c) identifying the special needs of children coming from the economically and socially disadvantaged sections of the society;
- (d) involvement of the local community in educational programmes;
- (e) use of local resources for organizing socially useful productive work; and
- (f) emphasis on competency-based learning at mastery level.

### **Operational Strategy**

At the national level, the NCERT, through its Primary Curriculum Development Cell (PCDC), monitors the project and provides help and guidance to the States/Union Territories. At the State level, the State Councils of Educational Research and Training (SCERTs)/State Institutes of Education (SIEs), through their State Primary Curriculum Development Cells (SPCDCs), are responsible for the implementation of the project. Thus, about 173 members of the SPCDC teams are involved in the implementation of the project at the level of the SCERTs/SIEs. To assist the SCERTs in the effective implementation of the project and ensure close supervision of the project schools, more than 180 teacher training institutions (TTIs) have also been selected to participate in the project. In some States, where TTIs are not available, higher secondary schools or some other agencies are involved. 2465 primary schools were participating in the project in 1981-82. More than 11,000 teachers were taking part in the experiment. The number of students in the project schools, where new curricula were being tried out, was about four lakhs.

### **Instructional Materials**

The participating States/Union Territories have adopted a phased programme of developing and trying out the instructional materials. During the period under report, 85 textbooks, 21 workbooks and 75 teachers' guides were developed in the respective regional languages. Most of these materials are meant for Class I. After try-out and necessary modifications, the instructional materials would be made available to the

State Governments for wider diffusion. Simultaneously, the States continued their work for the development of the instructional materials for Class II to be introduced in the project schools during the year 1982. The instructional materials are developed through the actual involvement of the project school teachers, teacher educators and selected authors. For this purpose, about 95 workshops were organized, involving approximately 900 personnel.

### **Orientation of Project Staff**

Training programmes were organized for orientation of the project staff at various levels. The NCERT (PCDC) organized seven orientation programmes for members of the SPCDCs. About 135 members of the SPCDCs attended these programmes.

In the States, the SPCDCs organized about 240 training programmes for the benefit of the staff of the TTIs, supervisors and school teachers. About 8,000 persons were given orientation through these programmes.

### **Guidance to the States**

Besides organizing orientation programmes, the NCERT (PCDC) provided guidance to the State teams in many ways. The various activities undertaken in this regard included :

- (a) evaluation of manuscripts of the instructional materials developed by the States ;
- (b) providing on-the-spot guidance through visits to the States and participation in the programmes of the SPCDCs ;
- (c) providing consultancy to the States/Union Territories, i.e. Sikkim, Nagaland and Meghalaya in view of such services ; and
- (d) inviting members of the SPCDC teams for short meetings at the NCERT for discussions on various aspects of the project.

### **Development of Guidance Materials**

The following materials were developed for the guidance of the State teams :

1. Training of Personnel Involved in the Project PEER—Some Guidelines

2. Teaching-Learning Strategies
3. Scheme of Try-out of Instructional Materials
4. Monitoring and Supervision
5. Evaluation of the Pupil's Development
6. Planning and Guiding Language Learning
7. Environmental Studies—Concepts and Methods
8. Brochure on Mathematics
9. Art and Aesthetic Activities in the Primary Schools
10. Brochure on Socially Useful Productive Work
11. Hindi Version of the Tools for Evaluation of Instructional Materials (Textbooks, Workbooks and Teachers' Guides).

### **Evaluation of the Printed Instructional Materials**

The NCERT (PCDC) had initiated during 1980-81, evaluation of the instructional materials developed by 15 States/Union Territories which had joined the project during its first phase. This work was completed in the subjects of mathematics, languages, SUPW, health education and creative expression. In 1981-82, the remaining 85 titles in environmental studies and the integrated series for Classes I & II (6 titles), developed by SPCDC, Delhi, were evaluated.

### **Wider Infusion of the Curricula into the Education System of the States**

The ultimate aim of the project PECR is to make the existing primary education more meaningful by infusing gradually into the elementary school curriculum innovative ideas tested in the project schools. The project schools have been selected in such a manner that they are representative of the major socio-economic, cultural and geographical variations in each of the participating States/Union Territories. As such, the curricula being developed and tested under the project PECR can be infused into the education system of the concerned States/Union Territories. Some of the States have initiated action in this direction. The Education Departments of Maharashtra and Rajasthan have adopted the "Minimum Learning Continuum" as the basis for the primary curriculum in the State. In Mizoram, the new instructional material being produced and tried out under the project PECR are being gradually adopted by the

Mizoram Board of School Education. The Tamil Nadu Education Department has adopted textbooks in mathematics for Classes I and II developed under the project PECR. In Orissa, Gujarat and Andhra Pradesh also, some of the instructional materials developed under the project PECR have been adopted for use at the State level. All the States/Union Territories have been advised to initiate the process of wider infusion through a phased programme.

## COMMUNITY EDUCATION AND PARTICIPATION

### Objectives of the Project

The specific objectives of the project "Development Activities in Community Education and Participation", being implemented with UNICEF assistance, are to develop and test new types of educational activities as feasible means of meeting the minimum educational needs of large groups that currently, partially or totally deprived of any form of education. This approach is based on the premise that children's education, to be meaningful, has to proceed concurrently with gradual changes and modifications of their socio-economic environment. This can be achieved through education and stimulation of the community at large, which implies effectively and efficiently meeting the educational needs, not only of pre-school and out-of-school children, but also of drop-outs and mothers.

A related objective is to test whether by removing the dichotomy between the school and the community, the former can extend its assistance to the latter so that the school may become a catalyst for social change in other sectors of the community.

The project, therefore, envisages the organization of programmes of Non-formal Education to cater to the needs of the age-groups 0—3 and mothers, 3—6, 6—14, and 15—35 and adults. The challenge of this project also lies in the effective utilization of the resources available in each of the selected communities through the programme already offered by the various departmental and welfare agencies.

The project is in line with the Government of India's comprehensive programme of Non-formal Education. The programme and the activities developed under the project meet the broad objectives of improving the "life and living" of people through their willing participation and provides

required competencies to satisfy the "package of minimum learning needs".

One of the important dimensions of the project is to develop in the community members the knowledge and skills required to actively participate in the various developmental programmes being offered by different agencies. The developmental activities are interwoven with the education programmes of the communities. The models of non-formal education strategies and materials for different age-groups, especially for 6—14 and 15—35, can be adopted/adapted by the respective States and Union Territories.

The project ensures the development of a positive attitude in the community members towards education. Children, who have either dropped out or never gone to school, are helped through non-formal education to re-enter the mainstream of education. Children are expected to acquire knowledge and skills in academic education and also to develop expertise with regard to socially useful productive work and their family occupations. The education programme for women includes training in pre-natal care and post-natal care, child-care, and nutrition, some economic activities, home management, etc. The educational programmes for the pre-school children help them to develop the proper attitude to and interest in schooling. Care is taken for an all-round development of pre-school children through play-way methods and creative activities.

The programme for the adults—both men and women—aims at providing knowledge and the skills of reading and writing and developing in them functional literacy and numeracy. An important dimension of the programme is to impart knowledge about various aspects of healthful living, agricultural and non-agricultural skills, and to develop in them proper attitudes towards the various welfare and developmental programmes. Thus the project provides an opportunity for the transformation of the society through community action.

The planning of programmes and activities for different target groups and the development of a variety of instructional materials are taken up on the basis of educational needs and the local environment, identified through a detailed survey of the communities.

## **Implementation of the Project**

The project was initially taken up in 15 States/Unions Territories in the year 1976 on an experimental basis. Two community centres in each State were opened for this purpose. These Centres were located in very poor, rural, tribal and hilly areas and urban poverty areas. Encouraged by the outcome of the project, the number of community centres was increased in the year 1981 from two to four or five in the 15 States/ Union Territories, and two community centres were opened in each of the remaining States/Union Territories except in Arunachal Pradesh which did not participate in the programme. The number of community centres was thus increased from 30 to 102 to provide for greater socio-economic and cultural variations and to develop suitable models of non-formal education for each community according to its needs.

A variety of patterns of non-formal education for different target groups covered under the project are being developed in all the States/ Union Territories. These patterns are based on the survey findings and the demands of the local situations. The methods and materials developed in the community centres are being modified on the basis of the feedback data.

Four orientation courses for curriculum teams of the participating States/Union Territories have so far been organized to focus attention on the various aspects of the development of programmes and activities for different target groups. In some of the States, the programmes are being adapted for State-wide use in non-formal educational programmes.

## **Monitoring of the Project**

The project is monitored by the Community Education Group of the NCERT at the national level and executed by a team of workers at the State Institutes of Education/State Councils of Educational Research and Training, teacher training institutions and local primary schools at the village level in the participating States. The grass-root workers, like teachers, community workers and community members, are involved in the planning and execution of the programmes and activities in the community centres.

## **NON-FORMAL EDUCATION**

The NCERT established, as an experimental project, Non-formal Educa-

tion Centres in the States. Each of the four Regional Colleges of Education and the Field Adviser's Offices, was asked to establish NFE Centres in the States, the main purpose being to gain experience of organizing available form of non-formal education. Such experience, it was hoped, would help the States to develop non-formal education as a major alternative strategy to universalize elementary education.

The NCERT has been running 228 Non-formal Education Centres in different States in the country. Two purposes were identified for imparting non-formal education to these children through these Centres. Firstly, children may be encouraged to join formal school after completing two years' education programme. Secondly, even if not interested in further education, children may at least appear in the Class IV or V examination conducted for the formal school children and thus obtain a certificate. The data collected through the survey of the Centres show that so far 292 children have joined the formal school, and 115 have passed the Class V examination (internal) conducted by the formal school. Besides, 96 children have passed the Class IV or V public examination.

### **Material Production**

The material produced during the year 1981-82 can be divided into two categories :

*Conceptual material* : This includes different brochures brought out by the NFE Group during the year 1981-82, which relate to the concept and different aspects of non-formal education. They are as follows :

- (a) Non-formal Education—Concept : Nature and Scope
- (b) A Model for NFE
- (c) Non-formal Education Programme (9-14 age-group)
- (d) Workable Model and Strategies
- (e) Revised Directory of NCERT's Centres
- (f) Job-oriented Model for Training of NFE Centre Teachers.

*Instructional material* : Ten manuscripts have been developed out of which one has been published and nine manuscripts are about to go for printing.

## **Collaboration with the States**

The State of Andhra Pradesh printed three primers prepared in Telugu by the NCERT for use in Non-formal Education Centres. While Assam has also printed one primer, '*Siku Aha*' with modifications, Bihar has agreed to the mass production of the instructional material prepared by the NCERT in Hindi.

## **Research Projects**

The report of the project entitled "Compilation and Linguistic Analysis of the Hindi Vocabulary of Primary School Children" was cyclostyled. The master list and some other categorized lists are being prepared.

The second project entitled "Survey of NFE Centres run by the NCERT" is near completion. The report will be ready in a few months. The third project entitled, "A Study of Strategies and Approaches in Non-formal Education Centres" was initiated.

The work done in other projects being assisted by the UNICEF is discussed elsewhere.

## **Monitoring and Evaluation of Educational Projects (Universalization of Elementary Education)**

The project "Monitoring and Evaluation of Educational Programmes", has been formulated with a view to developing procedures for optimising the outcomes of the programme of universalization of elementary education, by providing time remedial measures in a built-in system of evaluation in this field. The project aims at the monitoring and evaluation of the programme from the financial, administrative, physical and academic points of views.

In the process of monitoring, data of critical elements of all the above areas is being collected through appropriate tools, which were evolved for the purpose, in collaboration with the International Institute of Educational Planning, Paris, and the UNESCO Institute of Education, Hamburg, and in the subsequent discussions of these tools in Indian States.

The tools are being tried out in one district each, in three States, namely Andhra Pradesh, Gujarat and Uttar Pradesh. This try-out is being



**conducted in collaboration with the State Departments of Education and the State Institutes of Education of the three States.**

**The following districts and their blocks were selected for the purpose of the try-out of the tools, on the advice of the State authorities :**

- 1. Uttar Pradesh—Allahabad District (Sirathu and Kaudihar Blocks)**
- 2. Andhra Pradesh—Nalgonda District (Nalgonda, Ramannapet and Deverkonda Blocks)**
- 3. Gujarat—Sabarkantha District**

**A detailed schedule of planning, orientation and monthly meetings was developed in consultation with the respective States. During 1981-82, planning and orientation meetings of instructors and block-level officers associated with 130 Education Centres of Kaudihar and Sirathu Blocks of the Allahabad District, U.P., were held from 24 to 27 February 1982.**

# 6

## Education and Work

**O**NE of the major objectives of education is to help the students to make a smooth transition from the world of education to the world of work. This is done by providing information about the work situation by developing among students the skills required in

the employment market and by inculcating such attitudes among them as will enable them to function as socially useful productive citizens.

The NCERT keeping this objective in view, has undertaken a number of programmes with the purpose of assisting the States to develop meaningful educational programmes in the above directions. It has been particularly concerned with the implementation of the programme of socially useful productive work and vocationalization of higher secondary education.

Ishwarbhai Patel Committee (1977) envisaged Socially Useful Productive Work (SUPW) to be an integral part of the school curriculum. Accordingly, necessary steps were taken by different States to implement the programme in their schools. A research study was conducted by the NCERT to review the implementation of the SUPW programme in the country. The study entitled, *Socially Useful Productive Work in India—A Status Study*, has revealed a great deal of diversity in the nature and scope of SUPW as implemented in some States. It has also emphasized the need for more serious and concerted efforts on the part of the school system to make SUPW a meaningful programme.

The NCERT has prepared four volumes of a Source Book on SUPW, listing various activities for different age-groups of school-going children. These Source Books are written in simple language and are profusely illustrated so that teachers as well as students can undertake the activities without any difficulty. Volume I (for Classes I to V) and Volume III (for Classes IX and X) have been published and are being made available to teachers throughout the country. The volumes are also being translated for publication in Hindi.

Any educational programme, including SUPW, can make the anticipated headway only when the functionaries in charge of the various activities perceive it in its right perspective. Teachers, principals and officials of the education department are the persons charged with the responsibility to implement SUPW in schools. In order, therefore, to orient such key persons in SUPW, the NCERT conducted five orientation programmes at Ajmer (for the Northern region), Raha (for West Bengal), Imphal (for the North-East region), Delhi (for RCEs and DM Schools), and Madras (for Tamil Nadu). In these programmes, besides lectures and discussions, the participants were given opportunities to undertake several SUPW activities. These orientation programmes

have generated confidence and awareness about the SUPW programmes among the participants who are expected to implement them in their schools.

## VOCATIONALIZATION OF EDUCATION

A critical study of vocationalization of education at the higher secondary level, as implemented in Andhra Pradesh, was conducted by the NCERT during September 1981. The study covered 15 institutions along with some coordinating institutions. The study provided first-hand data and factual information about the state of implementation of the vocational programme in the State of Andhra Pradesh. The report also contained several recommendations based on objective observation and assessment of the vocational education scheme. The report has been mailed to the concerned State authorities and is expected to help the State authorities to further improve the implementation of the programme.

Vocational courses are basically different from those offered in the general academic stream. They are, therefore, to be considered in the right perspective by teachers who teach these courses so that students can have a meaningful vocational training. As things stand today, most of the teachers coaching vocational students are the products of the age-old system of education with hardly any distinct idea about the scheme of vocationalization of education. In order to up-date the knowledge of these teachers and orient them to the whole scheme, the NCERT conducted seven short-term teacher training programmes in the vocational areas of Technology (four programmes : Maharashtra—2, Tamil Nadu—1, Andhra Pradesh—1), Commerce (two programmes : Tamil Nadu—1, Karnataka—1) and Agriculture (Tamil Nadu).

These training programmes were designed for a duration of about one month and were conducted at suitable institutions of higher and specialized learning in the relevant vocational fields. Services of experts from the various fields of specialization were utilized to expose the trainees to all aspects of their respective vocational fields. Besides skill development, trainees were provided with ample opportunities to enrich their knowledge about the socio-economic scope of the various vocations through a series of guest lectures, by especially inviting knowledgeable persons. These short-term training programmes have, it is expected, helped teachers to become familiar with various aspects of the programme of vocationalization.

**A district vocational survey must precede the introduction of any vocational courses in schools because it is only through the former that actual needs of the community, in particular vocations, can be identified. Since Uttar Pradesh was planning to introduce the vocational stream in schools, the NCERT conducted a three-day orientation programme for District Vocational Education Officers of the State and Professors of the Central Pedagogical Institute, Allahabad. These officers have been entrusted with the task of conducting district vocational surveys in four districts. The orientation programme was aimed at equipping the survey officials for conducting the surveys, and thus identifying proper vocational courses for the districts.**

**Vocational courses have been offered in Karnataka since 1978. As a result of on-the-spot studies undertaken by the NCERT, and other feedback, it was felt essential to revise the syllabi of some of the vocational courses in the State so that the students can have suitable vocational education at the +2 stage. With this basic objective, the NCERT organized a three-day syllabus revision workshop at Bangalore where the syllabi prescribed in four vocational courses were revised. Implementation of these revised syllabi will certainly effect an improvement in the level of vocational competence of the students.**

**Suitable instruction materials are the dire need of vocational students as well as teachers throughout the States which have introduced the vocational stream at the +2 level. Such material can be developed in a better and planned way if corresponding guidelines for the same are available to authors. In order to evolve proper guidelines for the development of instructional materials for students enrolled in vocational courses, a five-day working group meeting organized by the NCERT at the NIE, enlisting the active cooperation of various specialists, practising teachers and professionals from different vocational areas. A set of guidelines for the development of instructional materials in five major vocational areas, along with relevant recommendations for their publication and dissemination, was crystallized in the meeting. These guidelines are expected to facilitate further development of instructional materials for the vocational courses.**

**The guidelines for the development of instructional materials for the students and teachers of vocational education, evolved at the above working group meeting, found their immediate application and utilization at two workshops (at Udaipur and Mysore) organized by the NCERT,**

where instructional-*cum*-practical manuals in the fields of agriculture and commerce have been developed. These *manuals* will be sent to the States in the next academic session. After receiving the feedback the volumes will be suitably revised for their wider dissemination among the students.

The NCERT has brought out a booklet entitled *Vocationalization of Post-Secondary Education—A Critical Study of Implementation in the States*. The booklet summarises the scheme of vocationalization of education as propounded in various national documents, and reviews critically its implementation in the States. The various problems faced by the States, while implementing the scheme, are analysed objectively in the booklet, and practical solutions, indicated. The booklet is expected to help the States in taking the required corrective action for improvement of the programme. It will be equally useful to those States planning to introduce the vocational stream as there is much to learn from the experiences of their counterparts which have already implemented the vocational stream in their schools.

Vocational courses at the post-secondary stage are already in vogue in six States and three Union Territories. Some other States are seriously planning to introduce them in the near future. In order to take stock of the situation obtaining in the States and to resolve various problems concerning the vocationalization programme, a three-day national seminar was organized by the NCERT which was attended by representatives from 21 States and Union Territories. The deliberations and recommendations of the seminar have been crystallized in a report which is expected to stimulate the implementation of the programme in the States.

The principals, vocational education teachers and the education officials, are the key persons directly involved in the actual implementation of the vocationalization programme. The success or failure of the programmes depends mainly on the extent of the preception that they have of the programme. With a view to acquainting the key persons with the philosophy and with all possible aspects of vocationalization of education, the NCERT conducted two orientation programmes in Andhra Pradesh and Gujarat.

The NCERT actively collaborated with various agencies, like the NIEPA, the RCEs, schools, different units of the NIE, the National Productivity Council, the ICAR, the Association of Indian Engineering

Industries, etc., in the furtherance of the cause of vocationalization of education in India by extending its expertise and assistance in the conduct of different orientation programmes, workshops, seminars, etc.

The Unit for Vocationlization of Education received a number of educationists, State officials, foreign delegates and other persons interested in the vocationalization of education. Meetings with State officials of Bihar, Uttar Pradesh, Haryana, and Chandigarh, both at Delhi and at the respective State headquarters, were of particular significance as they have paved the way for a phased introduction of the vocational stream in those States. Similarly, meetings with the senior officials of the States already implementing the programme, like Maharashtra, Andhra Pradesh and Delhi, have resulted in the revitalization of the scheme, as evidenced by various steps taken by these States/Union Territories to strengthen the vocational programme.

# 7

## Education of the Disadvantaged

**T**HE NCERT has been concerned with the development of approaches which help in the accelerated promotion of education among children belonging to the disadvantaged groups, particularly the Scheduled Castes and the Scheduled Tribes. Research,



support for research undertaken outside the NCERT, preparation of instructional and supplementary reading materials, and training of key persons of the States, help the Council to develop meaningful experiences which it places at the disposal of the States for the development of suitable programmes.

### **Preparation of Textbooks in Tribal Dialect**

Under its programme of preparation of textbooks for tribal children of different States enrolled at the primary school stage, the NCERT took up, in collaboration with the Government of Orissa, the preparation of a primer for Class I for Saora children of Koraput and Ganjam districts of Orissa. The draft manuscript was prepared during 1981-82 in meetings of the working group held at Bhubaneswar, New Delhi and Berhampur (Orissa), in which a total of 21 participants took part, besides the faculty members of the NCERT. The primer was written in Saora language, using the regional (Oriya) script.

### **Analysis and Development of the Curriculum for Tribal Students**

Another programme that the NCERT had undertaken, related to the analysis of the existing curriculum at the primary stage with a view to finding out its suitability for tribal children. After analysis it was found that the curriculum was not suitable for tribal children ; consequently, a modified version of the same, keeping in mind the social and cultural background of the tribal population, was developed. The Governments of Madhya Pradesh and Andhra Pradesh have shown interest in the project and the NCERT has supplied more details to these States to enable them to take an appropriate decision. The State of Andhra Pradesh has now agreed to the NCERT taking up the analysis of the curriculum with a view to developing a modified version of the curriculum.

### **Preparation of Instructional Material for Non-formal Education Centres Located in Tribal Areas**

The programme of preparation of instructional material for the Non-formal Education Centres, located in the tribal areas in different States, was circulated to the State Government with a request that, in case they needed instructional material for Non-formal Education Centres, the

NCERT could help them in the matter. Meghalaya, Sikkim and West Bengal showed interest in the project. The Government of West Bengal has finally decided to seek the assistance of the NCERT in developing instructional material for Non-formal Education Centres located in the areas inhabited by the Santal tribe. The proposal to develop instructional material, following the bilingual approach, was accepted by the State Government, and work on the preparation of instructional material for this State was taken up.

### **Development of the Course Content for inclusion in the Syllabus of Teacher Training at Elementary and Secondary Levels for Proper Understanding of Tribal Culture and the Educational Problems of Tribes**

A large number of teachers posted in primary and secondary schools in tribal areas are non-tribals and therefore do not have an intimate knowledge of tribal life and culture which would be of help to them in tackling the various problems that they face in classroom situations. It was, therefore, considered desirable to incorporate some elements relating to tribal life and the problems of tribal education in the existing syllabi of the elementary and the secondary teacher training programmes. To this end the NCERT developed the course content on proper understanding of tribal life and culture and problems of tribal education, for inclusion in the syllabus of elementary and secondary teacher training. In the working group meetings held at New Delhi and Madras, in which 11 and 13 participants, respectively, took part, the course content for both the stages of teacher training programmes was prepared.

### **Preparation of Supplementary Reading Material for Tribal Students**

Two supplementary readers, entitled *Folk Songs and Folk Tales of the Gond*, and *Life and Culture of the Abujhmaria Gond*, prepared earlier, were reviewed and finalized in a working group meeting organized during 1981-82 at the College of Education, Bilaspur (M.P.).

A research project, entitled *A Study of the Methods, Processes and Practices of Non-formal Education Programmes for Tribal Students*, initiated during the year 1980-81, was continued in 1981-82. Field work was undertaken in the remaining States of Rajasthan and

West Bengal. The data were tabulated and the writing of the report was undertaken.

A research project entitled "A Comparative Study of the Physical Facilities between Tribal and Non-formal Primary Schools", was undertaken during the year. The research design for the same was prepared. Preparation of tools for the collection of data was also undertaken.

Another research project entitled, "Determination of Causes of Low Enrolment of Tribal Girls with a View to Suggesting Remedial Measures", was also approved, and work on the preparation of the research design and the tools for collection of data was undertaken during the year.

#### **A Study of the Factors Impeding Universalization of Elementary Education in Tribal Areas of Rajasthan**

The final report of this study, completed during 1980-81, was submitted during the year under report, i.e., 1981-82. The study was undertaken in the tribal areas of the Barmer District of Rajasthan State.

#### **A Study of the Nature and Extent of Community Participation and its Effectiveness in the Educational Development of Scheduled Tribes in Nagaland**

This research study was undertaken during the year 1981-82. The research proposal, research design and information schedules of the study were prepared during the year.

The NCERT also invited research proposals in the area of tribal education from the University Departments of Education and Anthropology and the Tribal Research Institutes in the country. During the year, the following research proposals were received and are at various stages of processing :

1. A Study of the Special Programmes and Their Impact on Educational Attitude, Educational Development and Enrolment Patterns of Scheduled Tribes (Boys and Girls)
2. Education and Development Problems of Gujars in District Baramulla, Jammu and Kashmir.

### **Training Courses for District Education Officers**

During the year, two orientation courses for District Education Officers in tribal life and culture and problems of tribal education, were organized. These courses were organized at Ahmedabad and New Delhi, respectively. Fourteen District Education Officers from Maharashtra, Tamil Nadu, Himachal Pradesh, Rajasthan, Kerala, Orissa, Andhra Pradesh, and Madhya Pradesh, participated.

### **Training Courses for Key Personnel of the Non-Formal Education Programmes in the Tribal Areas**

Two training courses for the key personnel in charge of Non-formal Education programmes in tribal areas were organized to orient them in tribal life and culture, problems of tribal education and organization of Non-formal Education Centres. These courses were organized at Udaipur and Allahabad, and attended by 37 key personnel from Karnataka, Meghalaya, Nagaland, Assam, Himachal Pradesh, Rajasthan, Kerala, Madhya Pradesh, West Bengal, Andhra Pradesh and Maharashtra.

### **Finalization of Syllabus for Training of Teacher Educators**

After finalizing a syllabus for teacher educators on tribal life and culture and problems of tribal education, a handbook for the training course of teacher educators was drafted in a working group meeting held at Nagarjunsagar from 4 to 8 February 1982. Fourteen participants took part in the meeting.

The second meeting of the Sub-Committee on Curriculum Development for Scheduled Castes and Scheduled Tribes was held at the NIE on 6 January 1982, to formulate strategies for development of the curriculum, preparation of textbooks, etc., for Scheduled Castes and Scheduled Tribes.

# 8

## **Training of Teachers and Other Personnel**

**T**HE school curriculum is undergoing a change in most of the States and Union Territories. Effective curriculum transaction, among other things, depends to a great measure on the programmes of in-service and pre-service teacher training. The quality of teacher training

programmes, in turn, depends upon the quality of teacher educators and other educational personnel associated with the training of teachers. The quality of training also depends upon suitable instructional materials and adequate research support. The NCERT directs its efforts towards these ends through a cohesive programme of research, development and training. In addition, the NCERT also serves as the academic secretariat of the National Council for Teacher Education (NCTE).

## **Research**

### *Effect of Classroom Behaviour Training (CBT) on the Classroom Questioning Behaviour of Teachers*

Classroom questioning occupies a pivotal position in teaching since time immemorial. The study purported to investigate the effectiveness of the CBT designed to develop effective classroom questioning behaviour in teachers, right from the structuring of questions through delivery and distribution behaviours to pupil response management. Employing the pre-test-post-test-control group design, the study has revealed that it is possible to modify the classroom questioning behaviour of teachers, using the CBT-employing interaction analysis and micro-teaching approaches.

The study has been utilized for developing questioning skills in the handbook, *Core Teaching Skills—Microteaching Approach*, for the colleges of education preparing teachers for secondary/higher secondary schools. To that extent, the project has found immediate use in developing material and training strategy.

### *Development of a Model for Forecasting Teacher Manpower Requirements in a State*

The study was conducted in the State of Haryana with a view to developing a model for forecasting teacher manpower requirements at the secondary level. The study involved identification of enrolment trends during 1971-75, and other factors affecting the demand for teachers. The model for forecasting the demand has been developed, and projections for 1980 and 1985 have been worked out.

The following studies are in progress :

1. Status of Teachers in India : A Study

2. **Developing Tools for Admission to Secondary Teacher Education Institutions**
3. **A Study of the Relationship of Self-concept, Attitude and Adjustment with Achievement of Scheduled Caste/Tribe and Non-Scheduled Caste/Tribe Student Teachers**
4. **A Comparative Study of Teachers' Profiles in Rural and Urban Settings in the Elementary School System**
5. **Development of Measuring Tools for Evaluating Working with the Community.**

### **Development**

The NCERT has taken up the implementation of the NCTE curriculum framework as a major programme. The work is being accomplished through a two-pronged strategy. On the one hand, the NCERT is preparing instructional material for facilitating curriculum development and curriculum transaction through the development of instructional material; on the other, the States and the Universities are being assisted in the revision of teacher education curricula.

### **Development of Instructional Material**

The NCERT is engaged in preparing textbooks and handbooks for both elementary and secondary teacher education. A handbook on *Teaching of Science*, following the content-cum-methodology approach according to the NCTE curriculum framework, has been released. The following books and handbooks at the secondary teacher education level are in press :

1. **Core Teaching Skills—Microteaching Approach**  
(A handbook for secondary teacher education institutions)
2. **Teacher and Education in the Emerging Indian Society**
3. **Education Psychology**
4. **Curriculum and Evaluation**
5. **Handbooks on Socially Useful Productive Work**

A textbook on 'Teaching of Mathematics' is under preparation.

At the elementary teacher education level, manuscripts of the following are being finalized for press :

1. Teacher and Education in the Emerging Indian Society
2. Child Psychology
3. Working with Community
4. Teaching of Mathematics
5. Teaching of Social Studies
6. Core Teaching Skills—Microteaching Approach

### **Intensive Teacher Education Programme (ITEP)**

The programme envisages working with the States and university departments of education for improving teacher education curricula and curriculum transaction. The programmes are being utilized for implementing the NCTE curriculum framework on teacher education. The Universities of Gorakhpur, Kanpur, Bundelkhand, Garhwal, Kumaon, Udaipur and Calcutta were assisted in the revision of B.Ed. syllabus.

### **Training**

The NCERT organized two orientation programmes in microteaching, one each at the elementary and secondary level. Sixty elementary teacher educators, and 23 secondary teacher educators from the Northern Zone attended the courses. Two courses were organized for orienting elementary teacher educators for effective transaction of course in child psychology. Thirty-three and 34 teacher educators respectively, attended the courses at Coimbatore and Madras. Twenty-four key persons and teacher educators were oriented in Socially Useful Productive Work and working with the community. Thirty-five teacher educators were oriented to the new curriculum area : "Teacher and Education in the Emerging Indian Society."

### **Conferences and Seminars**

The Annual Conference of the Directors of SIEs/SCERTs was held in December 1981, to review the programmes and to determine the focus of work for the ensuing year. The discussions focussed on the strengthening of the Extension Services Centres, improving evaluation and examinations, non-formal education, implementation of the NCTE curriculum for teacher education at elementary level, and improving the



functioning of the Centres for Continuing Education for teachers. A number of practical suggestions were made.

The NCERT organized seminar reading programmes for elementary and secondary school teacher educators for promoting innovativeness. Twenty-three papers from elementary, and 28 papers from secondary teacher educators were selected for award this year.

### **Centres of Continuing Education Scheme**

The scheme was launched in the year 1978-79, with a view to updating of the professional competence of secondary school teachers and primary school teacher educators, on a continuous basis. It was decided to establish 100 Centres initially, with the active collaboration of the State Governments/Union Territory Administrations with their commitment to share 50 per cent of the recurring expenditure of the Centres established in their jurisdiction. Each Centre is expected to cater to the professional needs of the teachers/teacher educators of three to four districts.

In the year 1981-82, the NCERT approved the establishment of 50 more Centres in addition to the 100 Centres already approved. This was based on requests received from various States/Union Territories. In all, 150 Centres will have been approved for establishment by the end of Sixth Plan Period, i.e., the year 1984-85. The scheme has already made its impact in the States and activities and programmes undertaken by the various CCEs have proved useful in in-service education of teachers and teacher educators.

Ninety-seven Centres were established initially, out of which approximately 70 Centres have conducted their programmes. During 1981-82, the NCERT approved the establishment of new CCEs—2 in Gujarat, 1 in Karnataka and 4 in West Bengal (by replacing the 5 existing Centres). At the moment the States/Union Territories where Centres have been approved are : Andhra Pradesh, Assam, Arunachal Pradesh, A & N Islands, Bihar, Chandigarh, Gujarat, Delhi, Haryana, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Meghalaya, Manipur, Mizoram, Nagaland, Pondicherry, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, and West Bengal.

## DOCUMENTATION ON TEACHER EDUCATION

### *Studies and Investigations on Teacher Education in India, 1976-80*

A survey of research on teacher education undertaken at M.Ed. and Ph.D. levels, carried out in different universities during 1976-80, was undertaken. About 600 titles have been classified, and significant findings of 280 studies have been presented under the following heads :

- (a) Effectiveness of Teaching
- (b) Status of Studies and Problems of Teacher Education
- (c) Methods of Teaching and Problems Involved
- (d) Syllabi and Teacher Education Programmes
- (e) Audio-Visual Aids
- (f) Evaluation
- (g) In-service Education
- (h) Administration and Supervision

The draft report for publication has been prepared.

### *Innovative Practices in Secondary Teacher Education in India (1975-78)*

The NCERT collects innovative practices in use in colleges of education and University Departments of Education. A volume, covering innovations, has been prepared.

### *Publications*

The following documents were prepared :

1. Effect of Classroom Behaviour Training (CBT) on the Classroom Questioning Behaviour of Teachers
2. Studies and Investigations on Teacher Education in India, 1973-75
3. Report of the Workshop for Revision of B.Ed. Curriculum in the Universities of Garhwal and Kumaon

4. Report of the Workshop for Improvement of the B.Ed. Curriculum in the Universities of Kanpur, Bundelkhand and the L.T. Course of the U.P. Education Department
5. A Study of Reasons for Non-enforcement of Conditions of Affiliation in Colleges of Education
6. Teaching of Science in Secondary Schools : A Book on Content-cum-Methodology.

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

The Regional College of Education, Ajmer, caters to the teacher training needs of the States of the Northern Region, i.e., Rajasthan, Haryana, Punjab, Himachal Pradesh, Jammu & Kashmir and Uttar Pradesh and the Union Territories of Chandigarh and Delhi.

#### *Enrolment*

The College enrolled 358 students for the regular B.Ed., M.Ed. and 1st year B.Sc. (Hons./Pass) B.Ed. courses, in the following streams :

<i>Course</i>	<i>Enrolment</i>
1. M.Ed.	33
2. B.Ed. Science	74
3. B.Ed. Agriculture	37
4. B.Ed. Commerce	32
5. B.Ed. English	32
6. B.Ed. Hindi	44
7. B.Ed. Urdu	31
8. 1st Year B.Sc. (Hons./Pass) B.Ed.	75
	358

The enrolment in B.Ed. SSCC 1st year, which was started in May 1981, was 239.

**Results**

223 untrained teachers of the Northern Region appeared in July 1981, at the B.Ed. Summer School-cum-Correspondence Course Examination after getting four months' practical teaching and 10 months' correspondence lessons.

STATEMENT OF EXAMINATION RESULTS FOR THE COURSES RUN IN THE REGIONAL COLLEGE OF EDUCATION, AJMER FOR THE YEAR 1981

Sl. No.	Name of the Course	No. of Students Appeared	PASSED						DIVISION					Fail	Total
			II (I)	II (I)	III (II)	I (II)	II (II)	III	III (I)	III (II)	III (III)	R.W.IRL			
1.	B.Ed. (Science)	98	21	8	—	17	45	—	1	5	—	1	—	98	
2.	B.Ed. (Agriculture)	33	—	1	—	8	20	—	1	3	—	—	—	33	
3.	B.Ed. (Commerce)	40	1	3	1	5	26	4	—	—	—	—	—	40	
4.	B.Ed. (English)	52	5	1	—	7	35	2	1	1	—	—	2	52	
5.	B.Ed. (Hindi)	65	2	2	—	22	36	—	1	2	—	—	—	65	
6.	B.Ed. (Urdu)	38	2	—	—	8	19	—	1	7	—	—	1	38	
7.	B.Ed. (SSCC)	223	32	2	—	92	60	—	6	26	—	4	1	223	
8.	M.Ed.	18	$\frac{1}{6}$	$\frac{11}{12}$										18	

## **Extension Services Department**

The Extension Services Department of the College organizes programmes suggested by the States in the Northern Region and proposed by the faculty of the College. On the basis of the needs of the States, during the session 1981-82, the following programmes were organized.

A workshop on **new methods of teaching science and mathematics** was organized at Government College of Education, Dharamshala, (H.P.), from 27 April to 2 May 1981. The objective of this workshop was to orient key persons in the new methods of teaching science and mathematics. Thirty-six school teachers and college lecturers attended the workshop.

A workshop on **research methodology and experimental designs** was organized in the College from 14 January to 23 January 1982. Key persons from colleges of education, engaged in research at Ph.D. level, were invited to attend this workshop. Fifty participants attended this workshop which included the members of the faculty of this College. The latest trends in educational research and priorities in researches were discussed in this workshop, besides review of the researches conducted in India in the field of education.

A workshop on developing strategies and **instructional material for teaching of typewriting** was organized in the College from 28 January to 2 February 1982. The objective of this workshop was to discuss modern developments in the teaching of typewriting. Developing of materials such as lessons, speed tests, practice tests, etc., with formulation of their applications to classroom settings, was also an objective of this workshop. This workshop was attended by 18 commerce teachers drawn as key persons from various schools in the region.

A workshop was organized for developing a **teachers' guide** and a source book in two areas of SUPW for secondary and higher secondary schools. The areas covered were vegetable production and poultry Production. This workshop was organized at this College from 24 February to 1 March 1982, and 17 agriculture teachers from the higher secondary schools in the region attended.

A conference on the preparation and use of practice sets in **book-keeping** was organized at Adarsh Vidya Mandir, College of Education,

Adarsh Nagar, Jaipur, from 15 to 20 March 1982. The conference aimed at developing and promoting the idea of practice sets in book-keeping. Linking theory with practical documents and vouchers used in book-keeping was also an objective of this work conference. Thirty-eight commerce teachers from various secondary and higher secondary schools of Rajasthan State attended this conference.

An orientation conference of Principals/Head Masters and teachers of cooperating schools was held at this College on 5 and 6 November 1981. The purpose of the conference was to introduce the student teachers of the College to the teachers and heads of the cooperating institutions where they were supposed to do their internship in teaching.

The Extension Services Department could bring out the following publications during the year 1981-82 :

1. The Mathematical Structures Underlying Adolescent Thought
2. The Piagetian Journey
3. Researches on Adolescent Thought : A Framework
4. The Nature and Development of Problem Solving Behaviour in School Science Through Environmental Education During Adolescence
5. Let Grammar Come to Them
6. Course Blue Prints of Programmes on "A" and "An", "The", "Some", "Any"
7. Use of "The"—A Programmed Instructional Material
8. Interaction Analysis : Theory and Research.

### *Research Project*

There has been substantial progress on the project : Determination and Development of Schemes of Thought in Science During Adolescence. The project fellow submitted her thesis on "The Exclusion of Variables During Adolescence" for the Ph.D. degree to the Rajasthan University. The entire work stands documented. Two papers, one on the growth of logical thinking in science during adolescence, and one on controlled experimentation during adolescence, are nearing completion. At the M.Ed. level, opportunity also became available to explore some Piagetian motives among delinquent pupils.

The demonstration and research trials were conducted on the instructional farm of the College for the benefit of the students and the farmers of the community. Noteworthy amongst them was the cultivation of oat during the winter season for green fodder, which proved to be quite successful for this area of arid zone.

### *Developmental Activities*

The B.Ed. (Agriculture) course was revised to make it more practical-oriented and need-based for the teachers of agriculture.

The Vocational Courses for four-year integrated science programme leading to B.Sc. (Hons.) B.Ed. degree, were re-cast from II<sup>nd</sup> year to IV<sup>th</sup> year for submission to the University of Rajasthan.

An orchard was developed on the instructional farm to meet the instructional requirements of IV<sup>th</sup> year science students.

A central nursery was developed on the College campus for disseminating the concept of SUPW activities in the area of potculture and ornamental gardening/kitchen gardening.

An intensive programme of beautification of the campus was conducted through the development of new lawns and flora and by effecting modifications in the existing lay-out of the gardens.

As part of extension activities, a regional workshop, of a week's duration, in the area of SUPW (vegetable and poultry production), in which the Agriculture teachers of Northern India actively participated was organized by the Department of Agriculture, to prepare the teachers' guide in the above mentioned area. This programme proved to be quite successful.

Guest lectures by agriculture scientists were organized for the professional growth of the staff and students.

Periodic seminars were arranged for the staff and student.

A new programme of extension to adopt selected local schools for strengthening SUPW activities in agriculture and horticulture, was undertaken. The response was very encouraging.

The staff of the Department of Agriculture also cooperated with the local Krishi Gyan Kendra, which is the part of the Agriculture University, Udaipur, to organize an exhibition for the benefit of the farmers.

One issue of the *Journal of Work Experience and Vocational Education in Agriculture* of the National Association of Agriculture Teacher (NAAT) was edited, published and distributed to the members, as a part of extension activities of the Department.

### Regional College of Education, Bhopal

The Regional College of Education, Bhopal, caters to the educational needs of aspiring teachers to-be from the States of Gujarat, Maharashtra, Madhya Pradesh and Goa.

#### *Pre-Service Courses*

The courses offered, and the enrolment during the year are indicated below :

<i>Course offered</i>	<i>Enrolment</i>
B.A. B.Ed. (Four-year Integrated Course with English as special subject)	28
B.Sc. B.Ed. (Four-year Integrated Course)	52
B.Ed. (One-year in Languages, Science & Commerce)	169
B.Ed. (Elementary Education)	44
M.Ed. (With specialization in Science Education, Teacher Education, Educational Administration and Guidance)	10
M.Ed. (Elementary Education)	7
B.Ed. (Summer School-cum-Correspondence Course)	238



### *Extension Programmes*

Besides these regular courses, the College organized the following in-service programmes :

<i>Sl. No.</i>	<i>Title</i>	<i>Duration</i>	<i>Venue</i>	<i>No. of participants</i>
1	2	3	4	5
1.	Workshop of Commerce Teachers of the Inter Colleges of Education of Maharashtra for Evolving Procedures for Tryout of the Workbook in Book-Keeping for Class XII	6-8 July 1981	Pune	18
2.	Workshop on Activity Methods in Teaching at the Elementary Stage	6-11 July 1981	Bhopal	20
3.	Training Programme in Micro-Teaching	3-12 August 1981	Bhopal	34
4.	Workshop on Orientation of Resource Persons of Continuing Education Centres in Instructional Techniques for the Development of the Skills of Teaching	20-24 August 1981	Bhopal	25
5.	Seminar-cum-Workshop for Method Masters of Secondary Colleges of Education in Science at the +2 Level	17-20 August 1981	Vallabh Vidya Nagar	16
6.	In-service Programme for Use and Maintenance of Hardwares for Higher Secondary Schools for Madhya Pradesh	—	—	33

1	2	3	4	6
7.	Orientation Programme for Hindi Secondary Teacher Educators and Teachers of Higher Secondary Schools for Gujarat	4-13 September 1981	Alliabada	20
8.	Working in Creative Teaching in Mathematics for Elementary Teacher Educators of Science Subjects	7-12 September 1981	Bhopal	17
9.	Seminar-cum-Workshop for Method Masters of Secondary Colleges of Education in Science at the +2 Level	7-10 September 1981	Bhopal	19
10.	Orientation Programme in Hindi for the Teacher Educators of Gujarat	30-10-1981 to 5-11-1981	Bhopal	28
11.	Workshop on Graphic Techniques	15-24 December 1981	Bhopal	18
12.	Six-day Refresher Course in Geography for Teacher and Teacher Educators of Gujarat	4-9 January 1981	Bhopal	16
13.	Workshop of Primary Teachers to Discuss Various Aspects of the Environmental Approach	18-20 January 1982	Bhopal	23
14.	Workshop for the Preparation of Workbook of Biology Practicals for Class IX and X for Maharashtra State	15-19 February 1982	Bhopal	28

1	2	3	4	5
15.	Orientation Programme of Teacher Educators for Teaching the Disabled Children	15-20 February 1982	Bhopal	14
16.	Workshop in Creative Teaching Methods for Elementary Teacher Educators	2-6 March 1982	Bhopal	37
17.	Annual Conference of the Hony. Directors and Co-ordinators of Extension Services Department	15-17 March 1982	Bhopal	26
18.	Workshop for Finalization of Test Items for Non-Formal Education Centres	16-22 March 1982	Bhopal	17
19.	Workshop on Identification of Instructional Skills for the Field Teachers of NFE Centres	16-22 March 1982	Bhopal	14
				423

In collaboration with other agencies, a number of other programmes were organized by the College during the year. The table below gives the details :

<i>Sl. No.</i>	<i>Title</i>	<i>Duration</i>
1.	Training Programme in Population Education	14-23 October 1981
2.	Seminar on Educational Journalism	11-12 November 1981
3.	Orientation Programme for Hindi Teachers	22-31 December 1981
4.	Orientation Programme for Hindi Teachers of Kendriya Vidyalayas	22-31 December 1981

The State-wise break up of the in-service training programmes organized during the year is indicated below :

<i>Sl. No.</i>	<i>Details</i>	<i>Madhya Pradesh</i>	<i>Goa</i>	<i>Gujarat</i>	<i>Regional</i>	<i>Specific</i>	<i>Total</i>
1.	Number of Programmes	3	3	5	6	2	19
2.	Number of Persons Invited	106	82	150	201	65	604
3.	Number of Persons Attended	84	65	94	136	44	423
4.	Man Days						
	(i) Target	765	340	920	1454	342	3821
	(ii) Achieved	595	270	597	983	258	2703

### **Non-formal Education**

As in the previous year, the College continued to run 32 Centres of Non-formal Education in Madhya Pradesh, Gujarat and Maharashtra. The total enrolment in these Centres was 1176. Eighty-five children have passed the Primary School Certificate Examination (Class IV/V) during 1981-82. Apart from these Centres, the College is implementing the following projects concerning Non-formal Education :

1. Identification of instructional skills and developing of related instructional material for Centres of Non-formal Education
2. Development of tools and techniques to find out equivalence between the achievement of the students in Non-formal Education Centres and Formal Schools.

Besides the above projects, the College is also preparing Reader II for the children of Non-formal Education Centres in the urban areas.

The project on "Seasonal Variation of Algal and Fungal Flora of the Lakes of Bhopal" was completed.

### *Research Projects*

The College has undertaken the following two research projects :

1. Identification of Teaching Skills and Training Strategy for Implementing Environmental Approach at Primary Education Level.
2. Development of Instructional Material for the Promotion of Creative Thinking and to Determine its Effectiveness.

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

During the period under report, the Regional College of Education, Bhubaneswar, made a significant contribution towards qualitative improvement of school education and universalization of elementary education in the region that it caters to. The College trained 884 pupil teachers and teachers in service through regular teacher training programmes; oriented 208 teachers and teacher educators; and offered non-formal education to 1073 school children of the Eastern Region. Besides, the Demonstration Multipurpose School attached to the College provided quality education to 937 students from the primary to the +2 stage.

### **Programmes**

The following innovative programmes were conducted by the College to achieve the goal stated above.

#### *Pre-service Training Programmes*

To prepare quality teachers who might introduce desired changes in our school education, the College offered the following regular courses which are approved by the Utkal University :

1. A four-year integrated course leading to the B. Sc. (Hons.) B.Ed. and B.A. (Hons.) B. Ed. degree for the +2 level students.
2. A one-year course leading to the B. Ed. (Secondary) degree for graduates and post-graduates in the Arts, Science and Commerce.
3. A one-year course leading to B. Ed. (Elementary) degree for graduates and post-graduates in the Arts and Science.
4. A one-year course leading to the M.Ed. degree for those possessing a Bachelor's Degree in Education.

5. A two-year course leading to the M.Sc. (Life Science)Ed. degree for science graduates.

The table below indicates the course-wise enrolment :

<i>Name of the course</i>	<i>Enrolment</i>
B.Sc. (Hons.) B.Ed.	76
B.A. (Hons.) B.Ed.	49
One-year B.Ed. Science (Secondary)	100
One-year B.Ed. Science (Elementary)	10
One-year B.Ed. Arts (Secondary)	63
One-year B.Ed. Arts (Elementary)	10
One-Year B.Ed. Commerce	20
M.Ed.	32
M.Sc. (Life Science) Ed. Ist year	21
M.Sc. (Life Science) Ed. IInd year	20
	<b>402</b>

The year witnessed substantial improvement in the performance of students at the University examinations as illustrated in the table below.

<i>Sl. No.</i>	<i>Name of the course</i>	<i>No. of students enrolled</i>	<i>Results of University Examination</i>					<i>Percentage Passed</i>	
			<i>No. of students appeared</i>	<i>1st Div.</i>	<i>2nd Div.</i>	<i>3rd Div.</i>	<i>Total</i>		
1.	B.Ed.	187	Reglr. 187 Ex. Coll. 20	207	62	102	—	164	81%
2.	M.Ed.	32	Reglr. 30 Ex. Coll. 6	36	10	14	1	25	73%
3.	M.Sc. (L.Sc.) Education	20		15	13 A	2 B	—	15	100%

## **In-service Training Programmes**

These programmes were offered with a view to improving the efficiency of teachers in service, and included : (a) Summer School-*cum*-Correspondence Course, and (b) Extension Programmes.

### *Summer School-cum-Correspondence Course*

This course, leading to the award of the B. Ed. degree of the Utkal University, is meant exclusively for untrained graduate and post-graduate teachers with at least five years' teaching experience in a recognized elementary/middle/high/higher secondary school in the Eastern Region. In the year 1980-81, out of the 460 students who appeared in the examination, 379 (or about 82 per cent) passed. The enrolment during 1981-82 in the course was 482.

### *Extension Programmes*

The College organized 11 seminars/workshops/training courses of 6-20 days' duration, to orient teachers and teacher educators in the latest developments in the content and methodology of education, so as to enable them to make classroom teaching interesting and effective. Two hundred and eight teachers and teacher educators of the Eastern Region were benefited by the programmes. A list of all such programmes is given in the pages that follow.

EXTENSION SERVICE PROGRAMMES ORGANIZED DURING THE YEAR 1981-1982

<i>Sl. No.</i>	<i>Title of the Programme</i>	<i>States Covered</i>	<i>Category of Participants</i>	<i>Venue</i>	<i>Date and Duration</i>	<i>Participants Attended</i>	<i>Remarks</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
1.	Content Enrichment Course for Key Persons in Mathematics	Orissa	Key Persons and Teachers	R.C.E. Bhubaneswar	17.9.81 to 24.9.81 (8 days)	13	
2.	Workshop on Commerce Education	Eastern Region	Key Persons Teaching Commerce in Higher Secondary +2 and Polytechnics	R.C.E. Bhubaneswar	21.9.81 to 26.9.81 (6 days)	7	
3.	Orientation Course on Micro-teaching and Teaching Skills	Orissa, West Bengal, Assam, Arunachal Pradesh	Teacher Educators of Training Colleges and Lecturers of Degree Colleges Teaching Education	—do—	9.11.81 to 16.11.81 (8 days)	20	
4.	Workshop in the Teaching of Stenography and Type-writing	Eastern Region	Key Persons Teaching Shorthand and Typewriting in Schools and Polytechnics	—do—	14.12.81 to 24.12.81 (6 days)	4	
5.	Content Enrichment Programme on Physical Science	A and N Islands	High School Teachers	T.T.I. Port Blair	16.12.81 to 24.12.81 (9 days)	25	



1	2	3	4	5	6	7	8
6.	Content Enrichment Course in Mathematics	A and N Islands	High School Teachers	T.T.I. Port Blair	18.12.81 to 24.12.81 (7 days)	30	
7.	Teaching English as a Second Language to Key Persons of Arunachal Pradesh	Arunachal Pradesh	High School Teachers and Higher Secondary Teachers	Govt. Higher Secondary School, New Itanagar	18.1.82 to 23.1.82 (6 days)	24	
8.	Teaching English as a Second Language (A & N Islands)	A and N Islands	School Teachers	T.T.I. Port Blair	16.2.82 to 22.2.82 (7 days)	33	
9.	Teaching English for Secondary Schools of Orissa	Southern Orissa	Secondary School Teachers	R.C.E. Bhubaneswar	26.2.82 to 4.3.82 (7 days)	10	
10.	Workshop on Education of Exceptional Children	Eastern Region	Primary/Secondary Teacher Educators	—do—	1.3.82 to 20.3.82 (20 days)	31	
11.	Orientation Course on Educational Technology and Low-cost Teaching Aids	Sikkim, Assam, West Bengal, Meghalaya, Arunachal Pradesh	Teacher Educators and Senior Headmasters of Secondary Schools	—do—	8.3.82 to 15.3.82 (8 days)	11	

## Non-formal Education

This programme was undertaken to establish centres which would help in the early realization of the goal of universalization of elementary education. Ten centres of non-formal education were set up in each of the States of Bihar, Orissa and West Bengal, and seven centres in Assam, to impart primary education to out-of-school children of 6-14 years. One instructor for each centre, and one supervisor for each State, were appointed on a part-time basis for the purpose. About 1073 children were enrolled in all the 37 centres.

The College prepared life-based instructional materials in Bengali to be used in the non-formal education centres located in West Bengal.

The academic achievement of the children enrolled in the centres was almost comparable to that of the children of Standard IV in formal schools. About 50 children from different State centres, have joined the formal system after receiving education in non-formal education centres.

## Vocational / SUPW Programmes

The College offered the following short-term training courses of 6 months' duration to matriculates in order to enable them to acquire skills in the trades, and to seek self-employment in public life.

### ENROLMENT IN DIFFERENT COURSES IN THE REGIONAL COLLEGE OF EDUCATION, BHUBANESWAR FOR THE YEAR 1981-82

<i>Sl. No.</i>	<i>Name of the Course (Short-term vocational course)</i>	<i>Enrolment</i>
1.	Welding and Fabrication	9
2.	Automobile Repair and Servicing	9
3.	Transistor Repair and Servicing	9
4.	Mechanist	7
5.	Electrical Repair and Maintenance of Domestic Installation of Gadget	10
6.	Wood-working and Furniture-making	2
		<hr/> 46

## Regional College of Education, Mysore

The Regional College of Education, Mysore, caters to the educational needs of the Southern States of Tamil Nadu, Kerala, Karnataka, Andhra Pradesh and the Union Territories of Pondicherry and Lakshdweep.

### Pre-Service Training Courses

During the year under report, the College admitted 296 students to the various under-graduate and post-graduate courses. There were in all 507 regular students and 229 SSCC candidates on the rolls of the College. The examination results of the College continued to show good performance on the part of the students. The results of 1981-82 examinations indicated more than 97 per cent as pass.

#### ENROLMENT IN DIFFERENT COURSES IN THE REGIONAL COLLEGE OF EDUCATION, MYSORE FOR THE YEAR 1981-82

<i>Name of the Course</i>		<i>Enrolment</i>	
1. Four-year B.Sc.Ed. Course	I B.Sc.Ed.	60	
	II B.Sc.Ed.	54	
	III B.Sc.Ed.	50	
	IV B.Sc.Ed.	52	
2. Four-year B.A.Ed. Course	I B.A.Ed.	22	
	Two-year M.Sc. Ed. Course 1 year	Physics	21
		Chemistry	20
		Mathematics	15
	II year	Physics	20
		Chemistry	19
		Mathematics	16
3. One-year B.Ed. Science	English and Social Science (History)	38	
	Elementary Teacher Education	21	
		3 candidates have left the course	
4. One-year M.Ed.		22	
		3 candidates have left the course	
5. B.Ed. (SSCC)		229	

## **Department of Science**

The Department of Science has been continuously working for the improvement of the course content of the B. Sc. Ed. and M.Sc. Ed. programmes.

The First Regional Training Course for upgrading of the basic sciences (physics and chemistry), related to technical and vocational education sponsored by the UNESCO, was organized from 14 December 1981 to 2 February 1982. Candidates from Afghanistan, Bhutan, Nepal, Bangladesh and Laos participated in this programme of enrichment.

## **Department of Technology**

The Department of Technology, apart from providing instructional programmes for the students, has also been providing facilities for fabrication and consultancy services for planning and design of teaching aids.

## **Department of Education**

Some of the highlights of the work of the Department during the year were :

- (a) The B. Ed. (secondary and elementary) curriculum was revised by the faculty on the lines of the recommendations made by the National Council of Teacher Education. The revised syllabi were introduced during the academic year.
- (b) *Working with the Community.* A three-day camp for the students was organized at Nanjangad to make them aware of the problems associated with the village life.
- (c) *Family Life Education.* A module has been prepared for participation in the national seminar. A regional seminar on this was organized during the year.
- (d) The NCC Wing has been conducting regular training programmes, both for boys and girls of the College. Because of the semester examinations, cadets, could not attend the annual training camp organized in October 1981. However, they did social service in Bhogadi, a village near by, where they cleared and prepared the approach roads for the village.

## **Department of Languages and General Education**

The Department has been continuing its work in improving the methodology of teaching languages as well as the social sciences. In this connection, a four-day workshop on "The Environmental Approach to Teaching and Learning at the Primary Level", was organized for the teacher educators of the Institutes of the States in the Southern region.

## **Department of Agriculture**

Apart from its regular involvement in the various pre-service training programmes of the College, the Department has been functioning as an agency to give financial assistance to poor students of the College, through the "Earn While You Learn" scheme. It has been helping students, through their Socially Useful Productive Work programme, by getting them to develop kitchen and ornamental gardens and by organizing plant propagation activities.

## **Department of Commerce**

Programmes have been conducted during the year under report under the Socially Useful Productive Work Scheme for the students of the one-year B. Ed. course which includes book-keeping, materials management and type-writing.

## **Department of English**

The year under report saw the revival of the four-year integrated arts course leading to the B.A. Ed. degree.

## **In-service and Extension Programmes of the College**

During the year, the College conducted not less than 18 in-service training programmes in the areas of teacher education, educational administration, secondary education and elementary education. These programmes covered topics and areas such as the environmental approach to elementary education, socially useful productive work, modern techniques of language training, improving and preparation of visual aids and improvisation of apparatus. Participants were all practising school teachers, teacher educators or key personnel of the State Departments of Education.

Extension work is one of the main activities of the College. It is gratifying to note that various extension programmes conducted by the College during the year involved more than 600 participants, drawn from the various parts of the Southern Region.

### **Summer School-cum-Correspondence Programme**

This Course continues to attract wide attention. Nine hundred and three applications were received for 250 seats. The number on rolls during the year was 229. Last year, 253 candidates had appeared for the examination, and 222 had passed.

### **Demonstration School**

The School, affiliated to the Central Board of Secondary Education, continued to make excellent progress. The results of the Board Examinations, conducted at the end of Classes X and XII, indicated the pass percentages to be as high as 98.4% and cent per cent, respectively.

The School had the following innovative features to its credit for the year under report :

- (a) Students Book Bank Scheme
- (b) School Calender, which is a Prospectus-cum-Diary
- (c) Class Manuscript Magazine.

As in the previous years, the School conducted inter-high school competitions in debates, drama, music, games and athletics. Students of the school participated in various sports and co-curricular competitions, conducted by various agencies in the city, and won the following prizes :

- (a) The Ever-Rolling Shield in the Inter-High School Kannada Drama Competition
- (b) The Ever-Rolling Trophy in the Girls Section in the Inter-High School Games Competition
- (c) The Ever-Rolling Cups in the Boys and Girls Sections in the Inter-High School Athletic Meet

- (d) The Runners' Prize in the Vivek Kumar Memorial Cricket Tournament
- (e) The Ever-Rolling Shield in the General Knowledge Competition conducted by the Old Students Association of the Bhagini Seva Samaj
- (f) The Ever-Rolling Cup in the Kannada Debate Competition sponsored by the Vidyodaya Junior College, T. Narsipur.

The Institution got the second prize in the General Knowledge Competition held by S.R.K.V.S., Mysore.

Fourteen cadets of the Junior Division of the NCC Wing of the School, attended the annual training camp at Yelwal. The year under review saw the revival of the Interact Club—a student wing of the Rotary Club.

A Guidance Committee has been constituted with the objective of helping students solve their problems, including choice of careers. The Parent-Teacher Association had two meetings of its Executive Committee and one of the General Body during the year.

Two teachers of the school, Smt. N.S. Saraswathi and Shri H.K. Ramanath, were the recipients of the National Awards instituted by the NCERT. Many others have participated in the in-service programmes, seminars and workshops, at both the State and the national levels.

The excellent work of the school received formal recognition on two occasions during the year. The school was adjudged as the best "All-Round Boys School" in a competition organized by the Inner-Wheel Club of Mysore. It also won the prize for the second best school in the Standard X examinations. The school has acquired one more new bus, during the year under report, and improved the transportation facility.

## EDUCATIONAL PSYCHOLOGY

### Research

*Improving Cognitive Functions and Classroom Behaviour of Elementary Students by Contingency Management*

Research in the area of contingency management is providing us with

some of the techniques of handling and improving cognitive functions and classroom behaviour of the students. The treatments utilized in the study have increased awareness about the utility of the behaviour-modification approach and techniques. The findings can help the teacher to motivate the students to achieve higher levels of cognitive functions and school achievement. The application of these techniques, on a wider scale, can result in higher school achievement, and also in the qualitative improvement of the school education in the country. Data collection is in the final stage.

*To Investigate the Effectiveness of the Vocational Exploration Programme at the Secondary School Level for Vocationalization*

Vocationalization of education demands not only the development of suitable courses but also promotion of certain attitudes, values and personality traits among the students. The project aims at studying the programme of vocational exploration in terms of occupations related to the courses provided in the senior secondary schools and occupations to be made available to the students in the district in particular and the State in general, and the ability, aptitude and interest of the students. The review of literature has been completed, the schedule of the programme to be followed has been drawn up, and the materials are under preparation.

*Diagnosing Major Learning Disabilities*

There are about a dozen areas of learning disabilities which are of importance to the administrators, the teachers, and the counsellors. The project is related to the universalization of the education programmes of the nation. The project has been approved and it will be taken up during the next year, 1982-83.

*A Study of Predictive Antecedents of Specific Reading Disability*

Specific Reading Disability (SRD) also refers to developmental dyslexia and educational handicap. The developmental delays in the initial primary school years, perhaps, have some relation with the delays in language integration in later years. No work has been done on the problem in India. The Study has a target group of Class I and II children, and most of the relevant physical, motor, visual, perceptual, visual-motor,



intelligence, somato-sensory and auditory and ear asymmetry as variables of predictiveness are to be explored in this study.

*Effect of Yogic Meditation on Anxiety, Convergent and Divergent Thinking, Attention/Concentration—An Experimental Study*

The purpose of this project is to determine the effect of yogic meditation, as embodied in Indian culture, on concentration/attention, anxiety, intelligence, creativity and scholastic achievements. The effectiveness of the yogic exercises may also be studied. The project design has been approved by the various committees concerned, and the project will start from April 1982.

### **Training Programmes**

The Educational Psychology Unit of the Council organized training programmes to develop key personnel with the following objectives :

1. to improve the quality of teacher educators and their knowledge of psychological principles underlying learning and development ;
2. to develop skills in understanding students; and
3. to develop skills in modifying learners' behaviour.

With these objectives in view, the following training programmes were organized.

*Training Course in Administration of Psychological Tests and Interpretation of Test Scores for Teacher Educators*

The short-term objective of the course is to train teacher educators in the skills of administration, scoring, interpretation, and communication of psychological test scores for correctly understanding the students' intelligence, interests and personality traits. The long-term objective is to extend skills through psychological practicum in the pre-service courses at the B. Ed. level. The course is highly practical and is of eight days' duration.

During the year 1981-82, the following three courses were organized.

<i>Name of the State</i>	<i>Venue</i>	<i>Date</i>	<i>No. of Participants</i>
(i) Maharashtra and Karnataka	Pune	20 to 26 September 1981	20
(ii) Gujarat and Andhra Pradesh	Porbandar	4 to 11 November 1981	13
(iii) West Bengal	Delhi	29 March to 5 April 1982	14

There is some information that the training colleges have introduced the psychological testing practicum in their B. Ed. courses.

*Enrichment Course on Learning and Development for Primary School Teacher Educators and SIE/SCERT Personnel Related with Primary Education*

The enrichment course aims at giving new information, and demonstrating and applying information so that teacher educators will be able to improve upon their existing methods of teaching and create teaching-learning situations appropriate to the level of development of children at the primary stages. So far, two courses have been organized for teacher educators and the SIE Personnel concerned with primary level education in the States of Rajasthan, Madhya Pradesh, a part of Uttar Pradesh and a part of Bihar. It is hoped that the content of the course will be incorporated in the syllabi of training institutions and these teacher educators will be able to impart information on these contents to their pupil teachers. The evaluation of the training course shows that the course has been very well received, and the course duration has been increased from six days to ten days.

*Enrichment Course of Learning and Development for Secondary School Teacher Educators and SIE/SCERT Personnel Related with Secondary Education*

The aim of this course is to give an overview of the development in various areas of behaviour during adolescence which may help the

secondary school teacher in framing teaching-learning situations according to the developmental study of the youngsters, in the various subjects of study. The course further gives the opportunity to expose teachers to some of the new trends in learning, demonstration of the information through experiment, and application of the learning principles in classroom situations. Two courses have been finished so far, covering the States of Gujarat and Maharashtra, Madhya Pradesh and Rajasthan. More than 40 participants have been involved so far in the course. An evaluation of the training course show that the course has been very well received and the course duration has been increased from six days to ten days.

#### *Regional Workshop on Application of Behaviour Modification Techniques in School Settings*

The purpose of the programme is to make available to the elementary teachers short-term training programmes in behaviour-modification techniques. One workshop was held at Prabhaspatan at the initiative of the State.

The NCERT undertook the following developmental projects :

1. to provide reference material in psychological training.
2. to improve instructional material for teaching psychology.
3. to provide guidance in adjustment in the school, in the home, and in general.

#### **National Test Development Library**

Ever since the realization that control on the quality of psychological tests needs to be exercised, and objective, reliable and valid information provided to the test users, a National Test Development Library was set up by the Council. The NTDL functions : (i) as reference test library; (ii) as an information centre for psychological tests; (iii) as an agency for critical reviews of all published tests; (iv) to identify gaps in the tests available; and (v) to suggest ways to fill in the gaps.

The NTDL has an Advisory Committee consisting of 14 top psychometricians of the country which meets once a year and gives direction to the work of the Test Library. During 1981-82, the Library obtained 43 tests, raising the number of tests available in the Library to 397. Two

hundred and thirty-one unpublished tests have also been collected from Education and Psychology Departments of the universities. All these tests have been screened by sub-committees of the Advisory Committee.

The NTDL publishes a bulletin which provides information about the tests. The *NTDL Bulletin* Nos. 7, 8 and 9 were published this year.

As high a number as 437 persons consulted the Test Library during the year.

### **Psychological Services Centre**

The Centre has been set up to cater to the needs of school-going children with regard to adjustment, learning, personality, selection of courses and other such areas of problems they may be confronting. The Centre is also to keep a record so as to develop reference data and ultimately to provide therapeutic and informational services to students, teachers, administrators and parents. The Centre has still to be set up properly as a permanent location has not so far been available. The required material, tests and other equipments are being currently collected. There have already been a few cases to whom consultancy services have been provided both through interviews as well as correspondence.

### **Development of Manual for Psychology Experiments and Practicum for Classes XI and XII**

The manual is being developed with the help of experts in the field of experimental psychology for the purpose of giving the students a direct first hand experience of understanding the scientific experimental approach to some of the content of psychology. As is obvious, it is a small manual so that the students may get relevant acquaintance with the method and manipulate some of the content studied in their textbooks of psychology.

## **EDUCATIONAL GUIDANCE**

### **Diploma Course in Educational and Vocational Guidance, 1981-82**

The NCERT offers a nine-month Post-graduate Diploma Course in Educational and Vocational Guidance. This Course is an on-going

programme, offered every year. During the year, 37 trainees from various States joined the Course, including seven belonging to the Scheduled Castes and three deputed by their organizations. The Course helps to provide the States with professional training in guidance which is required for the personnel who are to man their Guidance Services Colleges; non-official organizations are also enabled to get the required training for their guidance personnel.

### **Development of Guidance Laboratory including Occupational Information Corner**

The work pertaining to the Guidance Laboratory of the NCERT such as its maintenance, development and sending of guidance material to various institutions having a trained Guidance Worker, was continued during the year. The Laboratory also extended know-how for development to School Educational and Vocational Guidance Units as and when requested by some newly appointed Guidance Workers. The Guidance Laboratory also helped some schools in Delhi to organize careers conferences by way of supplying occupational informational materials.

### **Conference of Alumni of Diploma Course in Educational and Vocational Guidance**

The conference was organized during September 1981, for alumni currently working in guidance positions in Delhi. Twenty-eight educational and vocational guidance counsellors participated. Papers on various issues pertaining to educational and vocational guidance were presented and discussed. The need for evaluating the school guidance services in Delhi, and orienting educational administrators regarding guidance was highlighted. Suggestions were made for improving the guidance services, and also regarding topics in the NCERT's Diploma Course in Guidance.

### **Orientation Programmes in Guidance for District Education Officers**

During 1981-82, three orientation programmes in educational and vocational guidance were organized, one each at Bhubaneswar, Jaipur and Delhi. These were for orienting the District Education Officers of Orissa, Rajasthan and Delhi. The programmes developed an understanding in the DEOs regarding the nature and importance of various types of

educational and vocational guidance programmes, and of their own role in providing them. It is expected that with this type of understanding the work of educational and vocational guidance at the school level in these States is likely to get facilitated and expanded.

### **Conference of Heads of State Bureaus of Educational and Vocational Guidance**

An All-India Conference of Heads of State Bureaus of Educational and Vocational Guidance was organized by the NCERT at SIE, Kerala, from 24 to 26 March, 1982. The conference made several recommendations to facilitate the development of guidance services in the secondary schools, and for strengthening the State Bureaus of Guidance.

### **All India Seminar on Mental Health Problems of the Socially Disadvantaged**

The NCERT co-sponsored an All-India Seminar on Mental Health Problems of the Socially Disadvantaged, organized by the Department of Psychiatry, All India Institute of Medical Sciences. Members of the NCERT's academic staff participated in the seminar. Two research papers, entitled "Socio-economic Status, Mental Health, and Future Outlook", and "Guidance and Counselling Needs of First Generation Learners", were prepared and presented at this seminar.

# 9

## **Educational Technology and Aids**

**DURING** the year, the NCERT continued to organize training programmes and undertake research and development efforts in the area of educational technology. The main objective of these efforts was, to develop capabilities of the school system, to utilize for the

improvement of teaching-learning processes the technological resources that had become available. The effort was multi-directional—while on the one hand an effort was made to undertake programmes that would assist in the utilization of sophisticated technology like the television, on the other hand, the NCERT organized a variety of training programmes with the purpose of developing, among school teachers, the competencies to design teaching aids from locally available material and to use them effectively in classroom situations. Activities undertaken during the year are described below :

### **Educational Television**

The following training courses, workshops, and seminars were organized in various areas of educational television :

1. A one-day workshop on "Film Editing", in collaboration with the USICA was held on 10 April 1981. Mr. Richard Kaplan, a distinguished film and T.V. writer, producer, and director from the USA delivered a lecture on film editing, screened his films and demonstrated the editing of films using 16 mm footage. The workshop was attended by film and T.V. personnel from CET, DTA, Doordarshan, Films Division, USICA, etc.
2. A 15-day training course in portable video programme production was conducted from 11 to 25 May 1981. Twelve participants from various institutions in the country participated in the training programme.
3. A small film on "Science Activities" for in-service training of teachers in the hilly and tribal areas of Manipur, was shot at CET in collaboration with the State Institute of Educational Technology, Manipur, from 9 to 21 July 1981. The film has been completed and handed over to SIET, Manipur, Imphal.
4. A 6-day workshop for developing programme briefs for ETV programmes for INSAT was organized from 26 September to 1 October 1981.



5. One 15-day orientation workshop in ETV script-writing for candidates from Hyderabad, Bhubaneswar, and Sambalpur, was held from 26 December 1981 to 8 January 1982.
6. A TV prototype programme production workshop was held from 10 to 24 February, 1982, in which eight programmes were produced.
7. An orientation course-*cum*-workshop of officers from the Educational Technology Cells of various States, was organized at New Delhi from 15 to 19 March 1982. A total number of 27 participants, including four representatives from the Regional Colleges of Education, attended the workshop.

The workshop was organized with the following objectives :

- (i) to orient the Educational Technology Cell Officers to the concept of educational technology, system analysis, distance learning system and non-conventional modes of learning ;
- (ii) to identify the major problems of education in their States and to examine and discuss how educational technology can tackle some of the problems ;
- (iii) to assist the Educational Technology Cell Officers to prepare a plan of action for their respective Cells in their States ; and]
- (iv) to provide a forum where the Educational Technology Cell Officers and other experts in the field of educational technology can gain and learn from each other's experience and improve upon their working.

The first three days of the workshop were devoted to the orientation programme and the last two days to the formulation of future programmes of the Educational Technology Cells to meet educational problems in their respective States.

## **Educational Radio**

The project on teaching first language (Hindi) with the help of radio was taken up by the CET. The materials for school readiness as well as reading readiness was prepared and presented. These consisted of a manual of instruction for the teachers for familiarizing children with the school environment. Print materials in the form of pictures and flash cards were prepared and provided to 483 primary schools in the districts of Jaipur and Ajmer, where the project is being implemented. Simultaneously, a 15-minute broadcast was being made every day from the Akashwani Stations of Jaipur and Ajmer, for the entrants of Class I. The project was implemented in the field in July 1979.

During 1980-81, the project continued with the same group in Class II, as well as with a fresh batch of children which had joined Class I. Books for Class II were prepared. Broadcasts of 15 minutes duration were made daily for each of the Classes I and II.

During 1981-82, the project covered children studying in Classes II and III. The children of Class III studied the regular textbooks provided by the Department of Education, Rajasthan Government. They are still exposed to a daily broadcast of 15 minutes each. Their progress is being evaluated.

Fifty-one new programmes have been produced by this Centre up to September 1981. A total of 146 programmes have been broadcast up to this period. As a result, children have shown improvement in language development and listening skill.

## **Adult Education**

The Centre for Educational Technology participated in a workshop for the preparation of instructional material for the training of the instructors of non-formal education at Chandigarh from 25 to 30 May 1981 at the Haryana Resource Centre.

An orientation workshop in "Developing Procedures for Organizing Correspondence Education", was held at the CET from 28 May to 3 June 1981. The participants of the workshop were Directors, Deputy Registrars and Assistant Secretaries from the Institutes of Correspondence Education from the Northern States.

Resource persons from the CET participated in a training programme for District Adult Education Officers and Project Officers, sponsored by the Directorate of Adult Education, Government of U.P., at Lucknow during the month of June 1981.

### **Film Production**

The Centre has taken up production of the following films :

1. Presentation Techniques
2. Use of TV in the Classroom
3. Resources for TV  
(These films are at various stages of production.)
4. Innovation in Education, No. 3. (The film is at the script stage.)
5. Solar Eclipse. (The film is at the editing stage.)
6. Production of a series of 4 prototype films on birds for INSAT.  
(The initial work on preparing the line of approach and the scripts has been taken up by the Centre.)

Two pilot programme capsules of 45 minutes duration each, in Oriya and Telugu, have been completed and despatched to the Controller of Programme (INSAT), Doordarshan, along with 4 evaluation tools for teachers and students for pre-testing in Andhra Pradesh and Orissa.

### **Research and Evaluation**

The CET organized a training course in evaluation in educational technology for the personnel of the State Educational Technology Cells/ Educational Technology Units of the RCEs, SIEs, and SCERTs, concerned with the evaluation of programmes, media and system. Twenty-nine participants from different institutions, spread all over the country, participated in the two-week training course organized at the Centre from 5 to 21 November 1981. An evaluation of the course indicated that it was very well received by the participants.

A research study on correspondence education at the secondary level has been taken up. The correspondence courses, offered by the Secondary Boards of Education of Madhya Pradesh, Rajasthan and Orissa, are being studied with a view of finding out the factors contributing to the success or otherwise of these courses. Preliminary information has been collected and the study is in progress.

A study in educational innovation has been taken up with a view to surveying significant innovations in the field of educational technology and to make an in-depth study of some selected successful innovations. The questionnaire, to collect necessary information, has been prepared and is being sent to different institutions.

The Centre organized an orientation programme in correspondence lesson writing for the tutors/writers of the Boards of Secondary Education, Rajasthan, Madhya Pradesh and Orissa from 14 to 26 September 1981 in Bhopal. In all, twenty-eight participants were familiarized with the latest procedures and techniques in lesson writing. Towards the end of the programme, the participants developed one model lesson each. These lessons were tried out in a local school and revised accordingly.

### **Other Activities**

The personnel of the CET actively participated in the tripartite meeting for Phase II of the UNESCO/UNDP Project and helped in the preparation of budget estimates for equipment, building, staff, etc., for the CET and the Production Centres being set up in six State Institutes of Educational Technology for INSAT utilization.

### **Special Achievements**

One of the radio programmes entitled "Jal Chakra" (Water Cycle), produced in Hindi by the CET, has won the thirteenth Japan Prize Contest for the year 1981. The programme was produced under the project "Teaching First Language (Hindi) with the Help of Radio."

## EDUCATIONAL AIDS

### **Workshops/Training Courses/Seminars**

#### *Course in Educational Technology and its Application in the Preparation of A.V. Material*

The Department of Teaching Aids of the NCERT, organized a four-week training course in the preparation of audio-visual material from 20 April to 15 May 1981. This programme, the first of its kind in India, was organized in collaboration with the Unesco Regional Office for Education in Bangkok. The Regional office contributed part of the expenditure and also deputed one consultant for the above programme. The objectives of the programmes were : to familiarize the participants with the broad concept of the educational technology ; to show that educational technology has applications in planning, curriculum development, mass media, teacher education, preparation of audio-visual materials, and all aspects of education ; to provide training experiences to the participants to enable them to work on projects which require application of educational technology and utilization of teaching aids in the Indian context ; and to provide experience to the participants with a view to enable them to organize such training and/or material production in their States/Institutes, and to bring about a multiplier effect in the country.

The course content included : lectures on concepts in the educational technology ; presentation of case studies on the educational technology ; and writing of scripts and production of the audio-visual materials.

The course was attended by 21 teacher educators from most of the States in the country. During the four-week courses, the participants were able to complete seven projects such as videotapes, tape slides, charts, folios and self-learning materials. The report of the training course was finalized.

#### *Workshop on the Production of Science Charts for Classes IX and X*

A workshop for the production of charts related to science topics for Classes IX and X was conducted at the Regional College of Education, Mysore, from 23 June to 2 July 1981. Thirty-six participants, including some resource persons from the Delhi University, Karnataka schools, the R.C.E., Mysore, the SCERT, Hyderabad, and the faculty members of the

Department of Teaching Aids, participated in the above workshop. During the workshop, 90 charts were developed, in a draft form, in the subject areas of physics, chemistry, biology and zoology. Out of the 90 charts, a total of 35 charts have since been refined and finalized (22 biology charts and 13 physics charts).

#### *Workshop on Low Cost Teaching Aids*

A workshop on low-cost teaching aids was organized at Reasi, District Udhampur, for 29 teachers from rural middle schools of the Jammu and Kashmir State. The selected participants were sponsored by the respective District Institutes of Education with a view to disseminate these ideas further. The workshop conducted from 12 to 19 November 1981, aimed at involving teachers, children and the artisans in the preparation of the teaching aids ; helping teachers to prepare aids on difficult concepts out of the material easily available in the local environment and to make the aids out of the waste and inexpensive materials ; and involving the teachers, the children and the artisans in the preparation and the use of low-cost teaching aids in the schools.

After identifying difficult concepts, the teachers were divided into smaller groups and involved in the preparation of aids. Each teacher selected one item on which an aid, with the supporting chart, was developed by him. These aids were tested with the participation of the school children and the comments of the other participants were also sought.

An exhibition of the low-cost teaching aids developed by the participants was also organized in which the children, the teachers from the surrounding schools evinced keen interest.

#### *Course in Educational Technology in the Preparation of Audio-Visual Material in Collaboration with the RCE, Bhubaneswar*

As a follow up of the four-week course organized during April 1981, a short-term course on the preparation of audio-visual materials was organized from 25 November to 5 December 1981. This programme was conducted in collaboration with the RCE Bhubaneswar. Twenty-one participants from the Eastern States of India attended this course.

The course content included concepts in educational technology, presentation of the case studies, role of the audio-visual aids in education, and project work taken up by the participants. The participants concluded five projects comprising of a filmstrip/tape slide, charts and folios on various topics.

*Technical Training Course in the  
Operation Maintenance and Use of  
Audio-Visual Equipment*

A training course was organized in the operation, maintenance and use of audio-visual equipment from 21 to 30 December 1981 at New Delhi. Ten participants from local Kendriya Vidyalaya's, Department of Education, Delhi University, Traffic Police Department, Delhi, and the Gandhi Darshan, Delhi, attended the above courses.

The objective of the course was to develop skills and impart knowledge in handling equipment like slide/film projector, overhead projector, epidiascope and tape recorder, etc., for use in classroom teaching. The participants were trained in the operation and maintenance of the various audio-visual gadgets. During the course, theoretical discussions and practical demonstrations on the operation and use of equipment were arranged. The relevant films on the operation and use of the equipment were also shown to the participants. The participants prepared a diagram on films and developed an emergency tube light using the kit which was provided to them.

*Workshop on the Evaluation of DTA  
Products and Prototypes*

A workshop for the evaluation of charts prepared by the DTA in the subject areas of biology was organized at Delhi during 18-20 February 1982. The workshop was attended by 10 secondary school biology teachers from the public schools and government schools. During the workshop, 17 charts were evaluated.

*Workshop for the Production of Science Charts  
for Classes VI to VIII through Silk  
Screen Printing*

A workshop for the production of science charts for Classes VI to VIII through the silk screen printing process, was organized from 22 February to 3 March 1982 at Delhi. Twenty-two senior science teachers and officers, in charge of the Educational Technology Cells of the District Institutes of Education, J & K State, participated in the workshop. The objective of the workshop was to encourage teachers to develop low-cost teaching materials. During the workshop, the participants were exposed to various types of charts and their utilization in the teaching-learning process. The various methods of silk screen printing were also demonstrated to the participants. The participants produced 16 charts, of which they were able to multiply ten charts through the silk screen printing process. On the last two days of the workshop, the Principals of 11 District Institutes of Education, J & K, also attended this workshop, as it was felt that the development of teaching aids, specially low-cost-materials, can be promoted only by involving administrations. The Principals of District Institutes of Education were given orientation in organizing workshop to generate ideas and topics for the production of software for use at the elementary and secondary school levels.

*Workshop on the Development of A.V.  
Resources of Literacy Centres in Collaboration  
with Abner Memorial School, New Delhi*

As part of its training programme, the Department of Teaching Aids organized a workshop on the development of audio-visual resources for adult literacy. The workshop was held from 15 to 20 March 1982. Twenty participants attended the workshop. A very interesting feature of the workshop was that most of the participants were housewives, working people, as also students teaching in the literacy centres during their spare time. The workshop helped the participants in developing visual materials like charts, diagrams and flannelgraph packages in the areas of numeracy, language and social studies.

**Meetings of the Working Groups**

1. Three meetings of the working group in the subject areas of biology and physics were organized by the Department to finalize science



charts developed at Mysore in a workshop during June-July 1981. As a result of the working groups meetings, 35 charts have since been finalized (22 biology charts and 13 physics charts). The first series of the biology charts is ready for the mass production.

2. Two meetings of the working group were organized in the subject areas of physical geography for finalization of visual material developed at the earlier workshops which were organized by the Department during the year 1980 and in February 1981. The working group consisted of subject teachers from the University of Delhi and Central and Public Schools and a cartographer. They examined the above charts critically for the finalization of the material. As a result of the two meetings of the working group, 20 charts on physical geography have since been finalized for their final production for use in the teaching learning situations for secondary and higher secondary level.

#### INTERNATIONAL CONTACTS

1. The Department of Teaching Aids was entrusted with the training of UNESCO fellows from Bhutan and Afghanistan. Training was imparted to these fellows in various areas of audio-visual education and in the maintenance, operation and use of AV equipment. They were also imparted training in the preparation of filmstrips and other teaching aids.
2. Dr. Harmesh Lal, Research Associate, participated in a two-week programme arranged by the UNESCO in the area of educational technology during October 1981, in Malaysia, Kuala Lumpur. A report in this regard has been submitted to the UNESCO Office, Bangkok. During the study visit to Malaysia, a tape-slide programme on Kuala Lumpur was also developed by him.

#### PRODUCTION OF TAPE-SLIDES

- (a) *Tape-slides on Population Education*: Two workshops had been conducted earlier, one at Delhi in September 1979, and the other at Goa in January 1980 for the production of tape-slides

on population education. As a result of these two workshops, five scripts on the following topics have been evolved :

1. Meaning and Scope of Population Education
2. Dynamics of Population
3. Consequences of the Growth of Population
4. Family Life
5. Policies and Programmes.

The first four scripts were further refined by an internal group and the fifth topic was dropped as it was felt that only teaching notes will suffice for it. The work pertaining to the production of colour slides on the above four topics has been completed.

It is expected that the commentary for these four programmes will be recorded very shortly.

(b) *Tape-slides on Science Topics* : Two tape-slides on the following science topics, along with the teaching notes, have since been prepared :

1. Mass and its Measurement
2. Oxidation and Reduction.

## **Films**

The NCERT has produced a 16 mm film on Micro-teaching during the year 1981-82. Two 16 mm films on "Elasticity" and "Graphic Aids in Teaching" have since been got censored and dubbed in Hindi.

## **Sale of Films**

During the period under review, 16 mm prints of films, worth Rs. 56,000, have been sold to educational institutions all over the country for use in teaching-learning situations.

The film 'Understanding Animals,' produced by the NCERT, was telecast twice by the Delhi Doordarshan.

### **Central Film Library**

During the period under review, a number of previews of educational films for their possible acquisition for the Central Film Library were arranged. As a result of the preview committee meetings, 24 films were approved for acquisition. Out of these films the following were purchased during the year 1981-82 :

1. A 16 mm film series, 'On We Go', consisting of 30 episodes of 15 minutes' duration each on English language teaching for elementary classes produced by the BBC Radio and TV, London
2. Evolution and the Origin of Life
3. The Cell—A Functioning Structure, Part I
4. The Cell—A Functioning Structure, Part II
5. Development and Differentiation
6. Muscle
7. Nature of Matter
8. The Origin of Elements
9. Fruit Fly—A Look at Behavioural Biology

During the year 1981-82, 68 films were added to the stock of the Central Film Library. The total number of films thus rose to 8150. One hundred and sixty new members were enrolled upto 31.3.1982, and the total membership of the library stands at 3614. During the year, 8145 films were issued to the members of the Central Film Library.

## **Project on Indian Freedom Struggle**

*Study Visit to Bombay, Pune and Goa for the Selection and Acquisition of Relevant Visuals, Documents Concerning the Project on India's Freedom Struggle*

The NCERT is engaged in the development of a folio on India's Freedom Struggle for students studying at the secondary and the higher secondary levels. As a follow up of two workshops, conducted for the finalization of panels concerning the above project, the team visited Maharashtra Archives; University of Bombay, History Department, Bombay; *Kesari*, founded by Lokmanya Tilak; Itihas Sanshodhan Mandal; Gokhale Institute; Servant of India's Society, Pune; Goa Archives and Information Department, Panaji. The team members made a detailed study of the visuals/documents available in the above organizations and selected a good number of materials for use in the project.

*Exhibition of Panels Depicting Aspects of India's Freedom Struggle*

An exhibition of the panels entitled "India's Freedom Struggle" through visuals and documents, depicting various aspects of the freedom movement, was organized from 17 to 23 October 1981, at the request of the Committee on Value Orientation for Teachers, which the Ministry of Education has constituted. Members of the Committee examined the panels critically. The teachers and students of the neighbouring schools visited the exhibition. Suggestions received from the Committee members as also from the students and the teachers are being incorporated for the finalization of panels.

## **Orientation Programmes**

(a) A number of orientation programmes were arranged for foreign nationals from various countries like Mauritius, Fiji, Sri Lanka, Zimbabwe, Afghanistan, Thailand and Nepal. Besides foreign visitors, about 200 teachers and students from various educational and technical institutions from all over the country visited the Department during the year 1981-82.

(b) A three-day programme on mathematics teaching aids, developed by the Association for the Improvement of Mathematics Education,

in Vijayawada, Andhra Pradesh, was organized during March 1982. The objective was to have information on the latest innovations in the area of mathematics teaching aids. During this programme it was proposed that some of the innovative teaching aids, developed by the Association for the improvement of mathematics education, would be reflected in the proposed mathematics laboratory, which is to develop in the near future.

### **Educational Television**

A half-hour video cassette was produced on the methodology adopted by a teacher in a Delhi school in environmental studies. The topic of "Neighbourhood" was dealt with in the video tape which is now being used for teacher training at primary level.

### **SCIENCE KITS**

The Science Workshop of the NCERT is engaged in research and development of science equipment for schools, prototype and batch production, training, central storage, and distribution and maintenance activities. This time the major thrust has been on the development of low cost substitutes for costly equipment pertaining to middle school science curriculum.

### **Design and Development**

As part of its design and development activities, the Science Workshop undertook the following activities :

1. Prototypes of the Integrated Science Kit were produced for display and presentation at the national and state level science exhibitions and seminars. Innovative items like the electricity generator, kerosene burner, clock pendulum, trolley, laboratory stand, ray streak apparatus, solar still, etc., continue to be the focus of attention of the teachers who provide the feedback. The other items of the kit and their packing, handling, etc., are being continuously reviewed.
2. Economical and effective designs of miniature models, working on Solar energy, are being tried for use in schools.

3. Atomic and molecular models are being developed for higher classes.
4. A transistorized cathode ray oscilloscope is being developed. This is in continuation with the earlier model of the CRO and the development of electronic circuitry for teaching electronic at the +2 level.

### **Training**

An attachment programme was arranged for six technologists from Nepal. These technologists are expected to assist in the development of a centre in Nepal for the production of science equipments. As usual, the ITI apprentices were trained in the trades of electrician, fitter and sheet metal.

### **Production**

During the year 1981-82, the NCERT despatched 2164 primary science kits at the rate of Rs. 230 per kit, as given below :

<i>Name of the State/SIE</i>	<i>Number of Science Kits Supplied</i>
Jammu	812
Arunachal Pradesh	184
Madhya Pradesh	848
Kerala	296
Other Institutes	24
<b>Total</b>	<u>2164</u>

Earlier, production of a batch of 9,000 primary science kits, worth Rs. 20.7 lakhs, was taken up after consolidating the demands of various States, and the despatches have been made out of this batch.

# 10

## Population Education

**DURING** the year 1981-82, the National Population Education Project entered its second phase. In the first phase, nine States and one Union Territory, viz., Bihar, Chandigarh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan and Tamil Nadu

joined the Project on 1 April 1980. During the second phase, another seven States and one Union Territory, viz., Andhra Pradesh, Assam, Delhi, Himachal Pradesh, Kerala, Orissa, Uttar Pradesh and West Bengal followed suit. The remaining States/Union Territories are expected to be covered by the Project in its third phase, i.e., in 1982-83.

### **Training Programmes**

In accordance with the Project, schedule, the first intensive training programme-*cum*-workshop was organized for a period of ten days at the RCE, Bhopal, from 14 to 23 November 1981. The programme was specially designed for the full-time personnel identified by the States to man their Population Education Cells. The personnel of the States of Bihar, Delhi, Kerala, Orissa, Uttar Pradesh, Maharashtra, Haryana, participated in this programme. Resource persons from the host State of Madhya Pradesh and the local branch of Family Planning Association of India, were also invited to participate in the programme. In all, 23 participants were trained. Five persons from the NCERT and Dr. Leonardo de la Cruz, Regional Adviser, UNESCO Regional Office, Bangkok (Thailand), acted as Resource persons.

The major goal of the programme was to develop skills and competencies in the personnel of the Population Education Cells in the States. The participants worked individually and also in small groups to plan and prepare materials in population education for students and teachers. A second intensive training-*cum*-workshop was held at Banaras Hindu University, Varanasi, during 14 to 23 December 1981, on the same lines.

Whereas in the first intensive training programme the emphasis was on curriculum development and preparation of instructional materials, the second workshop-*cum*-training programme devoted itself to a discussion of the problems of orientation, training, monitoring, evaluation and research. The workshop was attended by 35 participants from the States, and resulted in the finalization of the drafts of the following brochures :

1. Strategies and Mechanism of Training the Trainers at the State Level
2. Face-to-Face Training of Teachers



3. Training at Grassroot Level Through the Use of Community Resources
4. Monitoring Population Education Programmes in the States
5. Distance Training Programme (through correspondence, radio and television)
6. Checklist of Learning Situations/Experiences, Leading to the Development of Values Related to Population Education
7. Training Programme for Secondary School Teachers.

**Three 8-Day Workshops for Textbook Lesson Writers on Population Education]**

The NCERT organized three workshops, each of eight days' duration at :

1. Technical Teachers' Training Institute  
Adyar, Madras (Tamil Nadu)
2. Central Pedagogical Institute  
Allahabad (U.P.)
3. College of Education, Osmania University  
Hyderabad (A.P.).

The textbook lesson writers participated in these workshops, the purpose of which was to develop stage-wise sample lessons in the areas of science, social sciences, and languages (Hindi, English and Urdu, etc.). The workshops were organized during the month of February and March 1982. The objectives of these workshops were :

- (a) to sensitize the authors with the concepts of manifold areas of population education; and
- (b) to develop the necessary insight and expertize for writing textbook lessons on population education in a few selected school subjects of specific school stages/grades.

The textbook lessons developed in these workshops were the outcome of the pooling of resources of different parts of our country, including a cross-section of agencies, eminent scholars from different disciplines, etc. These lessons would be made available to various educational functionaries, such as curriculum specialists, textbook writers, teacher educators, subject specialists, and practising school teachers.

### **National Steering Committee on Population Education**

The third meeting of the National Steering Committee on Population Education was held on 29 January 1982. The Committee reviewed the progress of the project and expressed satisfaction at the work done by the NCERT. The programmes to be taken up in the future were also discussed.

### **India Participates in International Programmes**

During the period under review, the Government of India was approached to depute two nominees to participate in a Regional Workshop for Development of Multi-Media In-service Teacher Training Package in Population Education for Formal System.

The programme was organized during 14-25 September 1981 in Bangkok. The services of Professor B.S. Parakh, Head, Population Education Unit, NCERT, and Coordinator, National Population Education Project, were made available for this programme.

### **Project Progress Review Meetings**

In August 1981, three project progress review meetings were held at Chandigarh, Madras and Delhi. These were attended by the representatives of the UNEPA and the Ministry of Education. The progress of the projects in these States were reviewed. These meetings were followed by the Tripartite Project Review (TPR) and Annual Country Review Meeting (ACR) which were held in Delhi. They helped to reschedule the activities included in the State projects. These meetings were necessitated particularly in view of the decision to extend the project activities over the entire plan period, i.e., up to March 1985.

One of the important landmarks in the development of the project was the decision taken by the Ministry of Education to extend the

programme to the remaining States/Union Territories. Accordingly, one workshop was held at the NCERT for the benefit of the States and Union Territories under phase three in order to help them to develop their project proposals. The Population Education Project is expected to cover the whole country by the next year.

### **Working with State Projects**

Monitoring of the programme at the national level is being done by the NCERT. In this connection the Population Education Unit assisted and worked in close collaboration with the States/Union Territories of Uttar Pradesh, Karnataka, Himachal Pradesh, Chandigarh, Punjab, Andhra Pradesh, Bihar, Haryana, Tamil Nadu, and Maharashtra in the formulation of their programmes of curriculum development and orientation and training of key persons in population education.

### **A State Level Seminar on Population Education in West Bengal**

A high level seminar on Population Education was organized at the SCERT, West Bengal, Calcutta on 9-10 November 1981. The programme was inaugurated by the Education Minister of the State. It helped to remove doubts about the programme and develop proper appreciation of the concept, scope and objectives of the population education.

### **State Projects**

With the assistance of the NCERT, the Population Education Cells of different States/Union Territories also organized the following programmes :

1. A workshop to review the curriculum for the elementary classes in Uttar Pradesh (Allahabad, 25-30 May 1981)
2. A workshop for preparing a training package for teachers of Haryana State
3. Orientation of key persons in Tamil Nadu, Bihar, and Maharashtra
4. Development of population education curriculum pre-service teacher education in Punjab

5. **Orientation of Adult Education Officers of Haryana in population education**
6. **A workshop for the curriculum development in population education at the secondary school level in Punjab**
7. **An orientation course for Education Officers and Administrators in population education in Andhra Pradesh**
8. **A workshop for curriculum development in population education at the middle school stage in Bihar and Himachal Pradesh**
9. **A workshop for the preparation of a handbook/guide for teacher educators of junior colleges of education in the State of Maharashtra.**

# 11

## Educational Evaluation

**E**VALUATION of teaching learning processes is essential to provide the feedback needed for bringing about desired changes in approaches and strategies. Evaluation has to be on a continuous basis and has to be conducted scientifically. While some school systems have

adopted or are in the process of adopting more modern techniques of evaluating pupil performance, the one-time external public examination continues to hold the undisputed survey.

Considering that the possibility of doing away with the public examination in the near future is rather remote, the Council has been working with the Boards to improve the existing practices of organizing and conducting examinations. Further, it has been undertaking research studies, the findings from which are expected to be useful to persons concerned with evaluation in one form or the other.

### **Developmental Programmes**

The two-day Planning Meet for the Project "A Monograph on Assessment of Practical Work in Science Subjects" was held on 14 and 15 January 1982, at the NIE Campus, and was attended by 11 participants. A sample question paper along with the marking scheme, objectives, design, and the blueprint were prepared, which will be used for improving practical examinations in science.

For the improvement of classroom learning in civics, a meeting of the Working Group was held to finalize the teaching learning units, including unit tests, for Class VIII. This material was produced as a result of the Classroom Learning Improvement Project undertaken in collaboration with the Kendriya Vidyalaya Sangathan. As there were some changes in civics syllabus, the units were to be modified. The meeting of this group was held from 29 March to 3 April 1982, in which nine participants joined, who were drawn from teacher training colleges, schools and SCERTs. The resource persons have gone through the material and modified and developed units. These units, after being edited, will be cyclostyled and sent for wider circulation for the use of teachers.

### **Research Studies**

*Position of Boards of Secondary and Higher Secondary Education Regarding First Divisioners at the End of Class X in 1978*

The NCERT had earlier circulated a brochure, entitled "Percentage of First Divisioners in Boards in 1978 and 1979", to stimulate thinking on examination results in the country. Since this brochure contains mere

statistics, some reactions to it were received indicating the need to make an interpretation of the data. A revised document, containing the analysis and interpretation of data, has been prepared. The document also indicates directions in which some efforts need to be made to produce comparable results.

### *Open-Book Examination System*

A report based on the reactions received in response to a note circulated among different educational agencies has been prepared. It also contains a few papers presented at the Hyderabad seminar on the subject. Some basic issues have been highlighted in the report. It is proposed to obtain views from academicians to clarify the structural and conceptual aspects of the problem as its operational aspects are not very clear.

### **Training/Extension Programmes**

The NCERT conducted a ten-day workshop on the training of resource persons and developing Question Bank at the +2 stage in collaboration with the SCERT of Tamil Nadu. It was held at PSC College of Arts and Science, Coimbatore, from 3 to 13 June 1981. The subjects included were history, economics, political science, commerce and accountancy.

Sixty-three senior teachers were trained in the area of educational evaluation and about 2500 items in the subjects have been prepared which are being scrutinized by the NCERT.

The NCERT organized a 10-day workshop at Ahmedabad from 27.8.1981 to 5.9.1981 in collaboration with the Board of Secondary Education, Gujarat. The main purpose of this workshop was to develop balanced question papers in the subjects of languages, mathematics, biology and social reconstructions. It is expected to bring out a small brochure on sample question papers in these subjects, which would include other relevant material also, for the guidance of perspective paper-setters and teachers.

The second workshop of paper-setters of Hindi, Gujarati, Sanskrit, mathematics, science, geography, social reconstruction and English for the Gujarat Board of Secondary Education, was held at Rajasthan

Hindi High School, Shahi Bagh, Ahmedabad, from 27.8.81 to 5.9.81. In all, 60 participants from different schools of Gujarat took part in it.

A workshop for improvement of practical examination in physics, chemistry and biology was organized by the Department in collaboration with the U.P. Board of Intermediate Education from 8 to 11 September 1981, at Central Pedagogical Institute, Allahabad. In this workshop, 20 paper setters/examiners participated. The main purpose of the workshop was to improve the quality of question papers on practical examinations as also the marking scheme.

A training course for resource persons in mathematics and biology was held at the NIE Campus, New Delhi, with effect from 14-21 October, 1981. It was attended by 28 participants (14 in mathematics and 14 in biology) from different States and Union Territories of the country.

A six-day training course in educational evaluation for paper setting in economics was organized by the Department at the NIE Campus from 23-28 November 1981. Eighteen participants as nominees of the States of Maharashtra, Haryana, Delhi, Andhra Pradesh and Bihar were trained in theoretical and practical aspects of paper setting in the subject. These nominees are expected to act as resource persons in their States. The special feature of the course was the panel discussion on Open-Book Examination System which was held on 28 November 1981.

The NCERT conducted three training programmes in the area of educational evaluation in social sciences (history, geography and political science) for the +2 stage. Participants to these programmes were the nominees of the various Boards of Secondary Education. They were given an intensive training for a period of ten days from 22 to 31 December 1981 in the theoretical as well as practical aspects of educational evaluation, particularly how to set better question papers for the examinations conducted by these Boards. The number of participants was 43, in history (17), geography (13), and political science (13). It is expected that after having undergone this training, they may be able to influence the technology of setting question papers more scientifically.

A 8-day workshop, for training resource persons in educational evaluation, was organized in collaboration with the Bihar School Examination Board, Barauni, at Barauni Thermal Power Station High School,



Begu Sarai, Barauni, from 3 to 10 February 1982. In all, 59 participants attended the workshop. Teaching Units in English, Hindi, mathematics, physical and biological sciences, history and geography were developed during the course. They were also given training for conducting workshop at their own level. A mock workshop was organized during the course for that purpose.

The NCERT provided technical help to the SCERT, Bihar, for introducing examination reform at the elementary stage so that the teaching-learning process gets a boost from the early stage of school education. For this purpose, a six-day training programme for the resource persons of Bihar was organized at Bokaro Steel City from 15 to 20 February 1982, in which 60 participants took part. They were drawn from Junior Teachers' Training Colleges, senior teachers teaching at secondary and elementary levels, and from among the headmasters of elementary schools. The programme had two components: (i) the theoretical aspects, and (ii) the practical assignments. Under the theoretical aspects of educational evaluations, talks were arranged to clarify the concepts of educational evaluation, the role of instructional objectives in the teaching-learning process and specification of the objectives, framing different forms of objective-based questions and planning, conducting and evaluating a workshop. The participants were also provided practical training in developing the teaching units and the unit tests. As a result of the deliberations of this training programme, a report has been brought out for circulation.

A combined training course in educational evaluation in biological and physical sciences was conducted at the NIE Campus from 16 to 23 March 1982. The purpose was to train teachers in educational evaluation so that they can act as resource persons. About 32 participants attended this eight-day training course from different States and Union Territories of India. A thorough knowledge and understanding of the concept of educational evaluation and improving objective-based questions, including the techniques of judging questions, was imparted through talks, discussions and group work. Participants also developed the skills in identifying and stating objectives, analysing the course content in terms of content elements and constructing objective-based questions of various forms.

### ***Special Training Course***

A 21-day programme for Mr. Badrauddin Bin Yusof, Examination Specialist, Malaysia, was started in the Department from 15 September 1981, which continued upto 5 October 1981 for his internship in the field of educational evaluation. He was deputed by the UNESCO for the programme. His training included knowledge sessions, providing theoretical knowledge in educational evaluation, preparation of unit tests, balanced question papers and test items in economics. The programme also included the visits to the Central Board of Secondary Education, New Delhi, the SIE, Chandigarh, the Punjab School Education Board, Mohali, and the Board of Secondary Education, Rajasthan, Ajmer.

The NCERT organized a programme regarding preparation of a 'Book of Readings in Evaluation at Elementary Stage' from 4 to 6 March 1982, at the NIE Campus. About 25 articles/papers were edited by a high level Editorial Committee consisting of five experts. These articles are being compiled in the form of a 'Book of Readings' for wider circulation.

### **Publications**

1. Open Book Examination System
2. Madhyamik Kakshaon Mein Itihas (Class VIII)-(Hindi)
3. Unit Tests in History for Class XII-Vol. II
4. Position of Boards of Secondary and Higher Secondary Education regarding First Divisioners at the End of Class X in 1978
5. In-service Primary Teacher Education in India—A Study under the Joint Innovative Project on In-service Primary Teacher Education
6. In-service Primary Teacher Education—Asian Experiences Report of the APEID Finalization Meeting on the Joint Innovative Project
7. Seminar on Examinations—Introduction and Recommendations
8. Unit Tests Khand I (Bihar School Examination Committee, Patna)

9. Report of the First Workshop in Evaluation (Improving Unit Tests in 8 Subjects)—Gujarat Secondary Education Board (Research Section), Gandhi Nagar
10. Report of the Second Workshop in Evaluation (Improving Question Paper in 8 Subjects)—Gujarat Secondary Education Board (Research Section), Gandhi Nagar
11. Evaluation at the Elementary Stage—A Report of the Training Programme for Resource Persons of Bihar held at Bokaro Steel City from 15 to 20 February 1982
12. An Introduction to the Evaluation in Socially Useful Productive Work.

# 12

## Survey, Data Processing and Documentation

**T**HE data generated through surveys and studies substantially helps in planning educational development. The NCERT has, therefore, been making efforts to periodically determine the status of education. The All-India Education Surveys are illustrative of this,

During the year, steps were initiated to generate information which would be of particular significance of an early realization of the goal of Universal Elementary Education.

### **Study of Educational Backwardness of Girls in Eight Selected States**

Considering that girls constitute, along with children belonging to Scheduled Castes/Scheduled Tribes communities, the bulk of the non-enrolled children, the Survey and Data Processing Unit initiated a survey with a view to determining the factors which hampered the enrolment of girls and contributed to their premature withdrawal from schools. For this purpose eight States, viz., Andhra Pradesh, Bihar, Haryana, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh, which had less than 50% enrolment amongst girls in the age-group 6-14, were selected.

Nine information schedules to be canvassed at the district, block, village, household, school levels, and interview schedule for sarpanchs, parents, drop-outs and teachers, were prepared and tried out in early May 1981, in some rural areas of Gurgaon in Haryana. On the basis of the try-out, these schedules were finalized in a meeting held on 11-12 June 1981, where the officers incharge of this programme in Haryana, Bihar, Rajasthan and Uttar Pradesh, were present. The finalized forms were sent to the States of Andhra Pradesh, Orissa and Jammu and Kashmir where they were translated into regional language/English before they were printed. The questionnaires were translated into Hindi and got printed by September/October 1981. They were then supplied to the five Hindi-speaking States involved in the study.

Training programmes of 3 to 4 days' duration, were organized in all the States for the Investigators/other officials involved in this study. In this training programme, the participants were acquainted with the various operations involved in the study, such as filling up of forms, scrutiny of schedules, selection of parents and drop-outs for interview, and interview of their parents.

A plan for analysis of data was developed which included drawing up of various tables and working sheets for analysis of data collected through different forms. Detailed guidelines for this purpose were also

prepared for the use of the investigators and other officers working on this project in the eight States.

Another round of training was organized in the States of Bihar, Orissa and Uttar Pradesh, for these officials to orient them in the analysis of data. Similar training courses will be organized in other States also as soon as the data collection work is over. The work on this project will continue during 1982-83.

#### *Impact of Midday Meal Programme on Enrolment and Retention Rates at the Primary Stage*

On a request from the USAID, the Ministry of Education and Culture, requested the Council to study the impact of the CARE-supported Midday Meal Programme on Enrolment and Retention Rates at the Primary Stage. The study covered 13 States of the country where the programme is being implemented with the assistance of the CARE. The study is based on the analysis of retrospective district-level data for the last 16 to 20 years on various educational, socio-economic and demographic variables. In two States, it is proposed to collect and use retrospective block-level data also.

The work on the project started in the middle of December 1981. Necessary proforma were developed for data collection after identifying the variables to be used in the study. The data collection work started in the month of January 1982, with the help of 10 investigators temporarily appointed for this purpose. The work of data collection has been completed, except for the block-level study. The study is expected to be completed by September 1982.

#### **Secondary Analysis of the Fourth Survey Data**

For the secondary analysis of some of the data collected in the Fourth All-India Educational Survey, samples of school information forms were selected from the districts of the different States. The main purpose was to study the availability of school facilities in terms of number of students. All the districts had to send Sampled School Information Forms to the NCERT so that the data could be transferred to punched cards for further analysis on computer. The major problem encountered in this study was that a large number of districts did not send the required School Information Forms and others sent them after several reminders,

A plan of analysis has now been drawn up to analyse the data that have been received from various districts. The work of data analysis is in progress and the results will be reported soon after the analysis is over.

### **Pilot Project on Collection of Educational Statistics on a Sample Basis**

This pilot project has been taken up in collaboration with the Planning, Monitoring and Statistics Division of the Ministry of Education and Culture. It aims at showing how sample survey methodology can be used fruitfully for providing educational data for planning and other purposes. In the four States of Haryana, Bihar, Tamil Nadu and Maharashtra, where the pilot survey is being conducted, the design for sampling schools was finalized and questionnaires (school questionnaires, teacher questionnaires and student data sheets) were provided to State authorities for data collection. The tabulation of data will be computerised. The NCERT is particularly responsible for providing guidance and other assistance for survey in Haryana and Tamil Nadu. The project is likely to be completed by September 1982.

### **Monitoring of School Attendance**

The programme of monitoring average daily attendance in primary and middle schools on a quarterly basis, which started with the Fourth All-India Educational Survey, continued this year also. As in the previous year, the National Informatics Centre processed the data on computer and supplied the results to the Ministry of Education and Culture. The response rate from many States has, however, declined considerably making meaningful interpretation difficult.

### **Publication of Survey Reports**

Based upon the information culled in the Third All-India Educational Survey, the following publications which were in press were brought out during 1981-82.

1. Hostel Facilities for Scheduled Tribes
2. Pre-Primary Teacher Education
3. Pre-Primary Schools

**Some Special Features of Schools (School Community Relationship ; Incentive Programmes, Ancillary Services ; Games and Sports Materials)**

**4. Institutions for Physically Handicapped Children.**

In addition, a report on Private Coaching Institutions based on the data made available by the Third All-India Educational Survey was brought out in mimeographed form,

A report on "Stagnation and Drop-out at the Primary Stage" based on a sample study was also published. Reports of the Seminar on the Role of Sample Surveys in Education (held in October 1980) and of a Training Course on Sample Survey Methods in Education organized in October/November 1980 were brought out in mimeographed form.

**Consultancy and Training**

The NCERT continued to provide help and consultancy to research workers from other institutions on research designs and statistical analysis of data. Also, resource persons were provided for various training programmes organized by the National Institute of Educational Planning and Administration.

A six-week training programme was organized for five statisticians from the Research Centre for Educational Innovation and Development, Tribhuvan University, Nepal, on 'Computer Programming and Regression Analysis'.

An internship training programme was also organized under the sponsorship of the APEID of the UNESCO Regional Office in Bangkok for the Officer Incharge of Educational Statistics in Bangladesh. The main objective of the training was to orient him in the collection and dissemination of educational information.

The NCERT was also associated with the High Level Committee on Educational Statistics set up by the Ministry of Education, and was actively involved in the deliberations of the Committee, visits to different States for studying the educational data collection systems, and in finalizing the recommendations of the Committee.



## **Training Course on Sample Survey Methods**

A training course on sample survey methods in education was organized by the Survey and Data Processing Unit, in collaboration with the Indian Statistical Institute, Calcutta, from 9 to 20 February 1982. The venue of the training programme was ISI, Calcutta. Twenty-three participants from 15 States and 2 Union Territories, and representatives from the Ministry of Education and Culture and the National Institute of Educational Planning and Administration, attended the course.

## **Compilation of Information about the Educational System in the States and Union Territories of India**

This project was launched in the month of March 1980. The main purpose of the project was to compile selected information on the educational system in the States and Union Territories of India and to bring this out in the form of a brochure. The work was undertaken with the assistance of the Council's Field Advisers. So far information has been collected from 23 States and Union Territories. The work of compilation of information and report writing is in the final stage.

## **Work Report of the Data Processing Wing**

One of the responsibilities of the NCERT is to undertake the work of data preparation (i.e., transferring the data on punch cards or magnetic tapes), designing of data systems, development of computer programmes and processing of data on computer. The entire statistical analysis of the major research projects of the different Departments/Units of the NCERT was carried out. One of the major projects was scoring of answer-sheets of the National Talent Search Examination for Classes XI and XII (1981). Besides this, the data processing facilities were provided to a number of Ph. D. scholars of the NCERT academic staff and also to the Research Centre for Educational Innovations and Development, Tribhuvan University, Nepal, for the regression analysis of data of a pilot study conducted by them.

## **Planning of Facilities for Elementary Education at Block Level**

An effort was made to assist the States to prepare development plans

for educational facilities in rural areas using the Fourth All-India Survey Data. The NCERT developed guidelines and proforma for the preparation of these plans at the block level. Workshops were organized in collaboration with the State Education Departments for the district and block level officers in the preparation of such plans, which gave details of habitations in which new primary schools should be opened and in which the existing primary schools should be upgraded to the middle level. In Gujarat, Uttar Pradesh, Andhra Pradesh, West Bengal, Haryana, Karnataka, Rajasthan, Madhya Pradesh, Maharashtra, Orissa, Assam, Meghalaya, Bihar and Goa, Daman and Diu, such workshops have already been conducted. Most of these States have completed the training of block level officers and are in the process of finalizing the plans for facilities for elementary education for all the blocks.

### LIBRARY AND DOCUMENTATION

The Library and Documentation Unit continued to provide library and documentation services as detailed below.

#### Significant Statistics for 1981-82

1. Total number of books purchased	1254
2. Number of books received as gratis	160
3. Total Number of books added	1414
4. Number of members	1924
5. Number of books bound	2025
6. Number of research scholars who availed themselves of the consultation facilities of the Library	213
7. Total number of books in the Library	about 116500

It may also be added that the Library also purchased a sizable number of books costing about Rs. 30,000 from the Fifth World Book Fair, held at Pragati Maidan, New Delhi, in February 1982.

## **Documentation Services**

The effort during the year comprised :

1. Current Contents : 4 issues
2. A selected and annotated bibliography on in-service training of teachers was compiled
3. 900 press clippings on education and other related disciplines were prepared.

## **Reprographic Services**

The Library continued to provide reprographic services, and 5718 number of photo copies were made till 31 March 1982.

## **Journals**

The Library and Documentation Unit has been getting journals on subscription, on an exchange basis, and gratis, as under :

	<i>Number</i>
1. Journals subscribed	309
2. Journals received on exchange	17
3. Journals received as gratis	150
4. Newspapers received	17
5. Number of journals bound	800

## **Stock Verification**

The stock verification of the entire Library was completed on the basis of the shelf-list method. This was the first ever comprehensive stock verification of the entire Library. Due to preoccupation with the stock verification work for a large part of the year under review, some of the documentation services had to be kept in abeyance.

## **Training Courses**

At the invitation of the Directorate of Education, Delhi, the Head, LDU, participated as a resource person training in the programme organized by the Directorate for School Librarians.

# 13

## Research and Innovations

**R**ESearch and support for research are important activities of the Council. Apart from the Departments/Units and the Regional Colleges of the Council undertaking research, the NCERT supports educational research by providing financial assistance to outside organiza-

tions. It also provides junior research fellowships so that educational problems are investigated and a band of competent research workers is created in different parts of the country. Most of the research undertaken or supported by the NCERT is in identified areas of priority.

The Educational Research and Innovations Committee, 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 the SCERTs comprise the Committee, along with all the Heads of Departments/Units at the NIE and the RCEs; Professors of the NIE Departments and RCEs, and permanent invitees.

The main functions of the ERIC are :

1. to support research and innovative projects on education and allied sciences.
2. to give publication grants for Ph.D. theses, monographs, etc.
3. to disseminate research findings from time to time.
4. to organize research conferences.

The research proposals that the NCERT receives from its departments/units are first evaluated by a Screening Committee of external and internal members under the Chairmanship of the Joint Director. Evaluation of the proposals is generally made on the criteria of worthwhileness, adequacy of design, etc.

Research proposals received from other institutions and requests for publication grants are evaluated by eminent experts in the particular field of specialization. Research at the doctoral level on educational problems is supported through Junior Research Fellowships, both at the NIE and the RCEs. At present eight Junior Research Fellows at the NIE and a similar number in the RCEs, are working for their doctoral degrees.

### **Conferences/Seminars/Lecturers**

Under the NIE Lecture Series, eight 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>SJ. No.</i>	<i>Topic</i>	<i>Speaker</i>	<i>Date</i>
1.	Education and Research in Africa	Ayotunde Yoloye Institute of Education University of Ibadan Nigeria	August 1981
2.	Linguistic in Language Teaching	F.R. Palmer University of Reading United Kingdom	November 1981
3.	Educational Research and Development in Pakistan	I. Hassan National Institute of Psychology Pakistan	November 1981
4.	Cross Cultural Studies in Cognition	Pierre R. Dasen University of Geneva Switzerland	January 1982
5.	Need for Stimulation in Early Years	Bettye Caldwell University of Little Rock, U.S.A.	January 1982
6.	Role of Social and Biological Factors on the Development of the Pre-School Child	Henry Ricciuti U.S.A.	January 1982
7.	(i) Determinants of School Achievement  (ii) Policy Research in Education	Charles S. Benson University of California Berkeley, U.S.A.	March 1982
8.	Juche Philosophy and Education	Pak Chong Con North Korea	March 1982

### Third Survey of Research in Education

At the first meeting of the Editorial Board, comprising fourteen eminent specialists in the field, eighteen major themes were identified on which trend reports, followed by research abstracts, will be written. Educational research in India, educational technology, non-formal education, educational administration and management, are some of the themes. Seven hundred abstracts of doctoral theses and of institutional and individual research, have already been prepared.

### Completed Projects

The research projects completed during the year are listed below along with their main findings :

<i>Sl. No.</i>	<i>Title of the Project</i>	<i>Name and Address of the Principal Investigator</i>
1	2	3
1.	Policy of Non-detention in Andhra Pradesh : An Evaluative Research	Dr. Ramesh Chander Sharma Administrative Staff College of India, Hyderabad
2.	A Psychological Study of Work Adjustment and Teaching Success—Primary School Teachers	Prof. S. Narayana Rao S.V. University Tirupati (A.P.)
3.	A Study of Patterns of Parental Preferences in Relation to Adolescents Personality Achievement and Adjustment	Dr. A.K. Gupta Model Institute of Education and Research, Jammu
4.	A Study of the Effectiveness of Some Important Measures Adopted for Increasing Enrolment and Attendance of Pupils in Elementary Schools of Udaipur District	Shri B.L. Vyas and Shri V.S. Sharma State Institute of Education Research and Training Udaipur
5.	Identity Formation of Scheduled Caste Students	Dr. (Smt.) Suma Chitnis and Km. Usha Naidu Tata Institute of Social Sciences Bombay



1	2	3
6.	Development of an Orientation Course in Sexism for Urban Middle-Higher Secondary School Teachers of Delhi and Bombay (Pilot Study)	Smt. K. Nischol South Extension New Delhi
7.	Case Study of Sikshaniketan : A Work Oriented Rural Institution in the District of Burdwan	Prof. N.B. Majumdar and Dr. N.P. Banerjee Vidya Bhavan, Visva-Bharti Shantiniketan (W.B.)
8.	Achievement of Tribal Student in Relation to Their Intelligence, Motivation and Personality	Dr. Tribhuwan Singh Benaras Hindu University Varanasi
9.	Differential Ability Patterns of High School Pupils of Grades VIII to X in Different Areas of Gujarat	Prof. K.G. Desai University School of Psychology Gujarat University Ahmedabad
10.	A Study of Adjustment Problems of the Scheduled Caste Students in Residential Schools of Rajasthan	Dr. R.R. Singh Vidya Bhawan G.S. Teacher's College Udaipur
11.	The Survey of KAVAL Towns with Regard to the Availability and Use of Teaching-Aids in School	Shri L.P. Bhardwaj B-339, Mahanagar Lucknow
12.	School Children and Their Reading Habits	Prof. P.C. Datta Eastern India Centre for Mass Communication Studies Calcutta
13.	Establishing Norms for Speed and Comprehension in Reading Telugu in Standards III to VIII	Prof. R. Srinivasa Rao Department of Education Sri Venkateswara University Tirupati
14.	A Study of Educational Backwardness of the Scheduled Caste Students and a Need Oriented Plan for Their Development	Dr. R.P. Singh Department of Education Patna
15.	Vocationalization at the Higher Secondary Stage of the 10+2+3 Pattern of Education	Dr. (Smt.) J. Kothai Pillai Madurai University Madurai

The main features of the above research projects, including their findings, are briefly given below.

1. POLICY OF NON-DETENTION IN ANDHRA PRADESH:  
AN EVALUATIVE RESEARCH

Principal Investigator :

*Dr. R.C. Sharma*

The Government of Andhra Pradesh abolished in 1971 the detention of students in all classes except Class VII and Class X. It was only at the end of Classes VII and X that state-wise public examinations were introduced. The scheme of continuous evaluation as an integral part of the education process, was introduced as parents had complained of victimization of pupils, if the teachers were not appointed for tuition. The present study was undertaken a decade later to find out the impact of this steps on drop-out rates, average period of students' stay at school, and students' school performance.

A stratified random sample of 995 students from 50 high schools of Hyderabad and Ranga Reddy districts, was selected. Besides, head of schools, teachers, parents and students, a few educational administrators, academicians and leaders of teachers' associations, concerned with the implementations of non-detention policy were contacted.

Some of the significant findings of the study were :

1. Twenty-seven per cent students managed to complete Class VII and 17 per cent Class IX while the corresponding percentages in the previous period were 25 and 10 per cent, respectively.
2. The wastage rates for primary and secondary school stages dropped to 69 per cent and 80 per cent in the non-detention period from 81 per cent and 88 per cent. Wastage among girls at these stages dropped from 90 per cent and 95 per cent to 78 per cent, and 87 per cent, respectively during the non-detention period.
3. Scholastic achievement at the primary school stage increased from Classes I to II but started decreasing from Class III to VI.

As regards high schools, the mean at the annual examination increased from Classes VI to VII but decreased upto Class IX. The mean was, however, higher for Class IX than for Class VIII.

## 2. A PSYCHOLOGICAL STUDY OF WORK ADJUSTMENT AND TEACHING SUCCESS—PRIMARY SCHOOL TEACHERS

Principal Investigator :

*Prof. S. Narayana Rao*

The study aimed at investigating the relationship of job-satisfaction to several intrinsic and extrinsic factors of a teaching job. The relationship between work adjustment and job satisfaction of primary school teachers was studied. Several questionnaires were administered in three sessions to the sample for obtaining the required data. A 2x2x2 factorial design with two sexes, two levels of service and two type of management was employed. The study was conducted in respect of primary school teachers of the districts of Nellore and Chittoor in Andhra Pradesh.

The most important findings of the study is that work-identification, organizational identification, work-involvement and organizational involvement of the teachers, was distressingly disappointing and that job satisfaction of the teachers leaves much to be desired.

Other significant findings of the study were :

1. There is no difference between women and men teachers with regard to job satisfaction.
2. Male teachers were found to be more intrinsically motivated than female teachers, although there were no significant differences between them with regard to job-involvement, work-identification, and organizational identification.
3. There was significant relationship between intrinsic motivation and job-satisfaction.
4. The length of services was not found to be related to job-satisfaction, organizational identification and job-involvement. Generally, teachers with a long-tenure showed higher intrinsic motivation than those with short tenure.

5. Urban and rural teachers did not differ significantly with regard to job-satisfaction, work-identification and organizational identification, but differed with regard to intrinsic motivation.
6. The external locus of control of teachers was found to be significantly related to job satisfaction, work-identification and organizational identification but not related to job participation, job-involvement and intrinsic motivation.
7. With regard to work-values, job-satisfaction was related to job-involvement and upward striving. Job-satisfaction was also found to be significantly related to work identification and organizational identification.

### 3. STUDY OF THE PATTERNS OF PARENTAL PREFERENCE IN RELATION TO ADOLESCENTS' PERSONALITY ADJUSTMENT AND ACHIEVEMENT

Principal Investigator :

*Dr. A.K. Gupta*

School authorities must be aware of the aspirations, biases and prejudices of parents as their support is vital in bringing about any educational or social change. Standards set by parents are reflected in the child-rearing educational practices.

The study aimed at developing a Parental Preference Inventory related to educational, emotional, social, moral, physical and vocational preferences, and analysing the relationship of parental preferences with adolescent adjustment, personality, achievement and children's education at home and school. The Hindi version of Junior-Senior High School Personality Questionnaire of Kapoor and Mehrotra was used along with Singh's Adolescent Personality Inventory and Saxena's Adjustment Inventory.

The study indicated that :

1. As a group, parents tended to show varying parental preferences in different spheres. Some tended to exist as core preferences, being primarily focussed on higher academic achievement followed by performance in physical and social areas.
2. Although achievement was a function of socio-economic status,

it was independent of family size and type. An inverse relationship existed between desirability of parental preferences and achievement of adolescents.

3. While no single effect was found to be strong enough to cause delinquency, this tendency was more manifest among adolescents of extreme achievement groups. Low desirability of parental preferences resulted in significantly higher delinquency among average achievers. Those with low levels of achievement and adjustment were significantly more delinquent even with parents of high and average desirability of parental preferences.
4. Creativity was manifest more significantly among those with poor and average achievement. Those with high and average adjustment were significantly more creative.
5. Obedience as a personality trait was related to high desirability of parental preferences while assertiveness was connected with low level of desirability of parental preferences. Low desirability of parental preferences was found to result in expedience, evasion of rules, lesser ego integration, etc.

#### 4. ENROLMENT AND ATTENDENCE OF PUPILS IN ELEMENTARY SCHOOLS OF UDAIPUR DISTRICT

Principal Investigators :

*Shri B.L. Vyas*  
*Shri V.S. Sharma*

The objective of the investigation was to analyse the impact of enrolment drives in increasing the enrolment of pupils at the primary school stage, the relative effectiveness of ungraded unit system of teaching in Classes I and II, the effect of incentives and play centres on enrolment and attendance; and the effect of appointing lady teachers in co-educational schools on enrolment of girls.

Data were collected from a sample of 395 primary and 45 upper primary schools. The main findings are :

1. Although there was a significant increase in enrolment in each session from 1970-71 to 1975-76, it was not entirely due to

enrolment drives. In schools in the tribal areas these drives did not lead to increase in enrolment.

2. Attendance of those who received incentives was not significantly different from those who did not receive incentives.
3. The establishment of play centres also had no impact on enrolment.
4. The index of wastage in Class I fell from 22.07 per cent in 1970-71 to 9.04 per cent in 1975-76 along with a gradual fall in the rest of the classes. However, index of wastage remained almost constant at about one per cent after the introduction of the ungraded unit system in Classes I and II. The index of stagnation remained constant at approximately 7.5 per cent before and after the introduction of the ungraded system in Classes I and II, while in Classes III to V it fell from 9.78 per cent in 1970-71 to 7.91 per cent in 1975-76.
5. Attendance of girls in schools without lady teachers showed an increasing trend against the difference in attendance of girls in schools with lady teachers.

#### 5. IDENTITY FORMATION OF SCHEDULED CASTE STUDENTS

Principal Investigators :

*Dr. Suma Chitnis*

*Km. Usha Naidu*

The research had the objective of studying identity of Scheduled Caste versus Caste Hindu school students, its relationship with SES, impact of school management by different organizations on identity and sex differences and relationship of identity level of education. The study includes three dimensions : perception of significant events, caste consciousness and identity in relation to level of aspirations.

186 students from 13 secondary schools representing five different managements constituted the sample. Out of the 186 students, 125 were drawn from Scheduled Castes and 61 from Caste Hindus,

It was quite clear in the course of the study that the caste factor does play a part in the inter-actions of students; the cosmopolitan atmosphere was only skin-deep. The Scheduled Caste students from lower SES were not really concerned about their low caste status. The students from schools run by Caste Hindu organizations and Missionaries are more caste conscious than Municipal and Central Schools' students. Boys are more sensitive to their low caste status than girls. The conflict related to the identity of Scheduled Caste and adolescence increases with the amount of education they are exposed to.

6. DEVELOPING AN ORIENTATION COURSE IN SEXISM FOR  
URBAN MIDDLE SCHOOL AND HIGHER SECONDARY  
SCHOOL TEACHERS—DELHI AND BOMBAY

Principal Investigator :

*Smt. K. Nischol*

A wide gap of inequality exists amongst the sexes. Control is exercised through the socialization process; and the denial of individuality is attributable to barriers conditioning the viewing of adult sex roles by members of society. It is an accepted fact that children faithfully reflect attitudes of elders. Individual values and beliefs of teachers, ideal pupil expectations and interpretation of textbook content condition future behaviour.

Three hundred teachers were drawn from private/public and government/government aided/corporation schools of Bombay and Delhi, maintaining school as the sampling unit.

The investigation was limited to general attitudes, age-wise and sex-wise, attitudes in the classroom by nature/type of schools they worked in. Teachers' attitudes towards role and status of women and behaviour and personality expectations of pupils were also investigated.

Among other things the findings indicated that overall attitudes of male and female teachers differed in the perception of adult sex roles. Although 80 per cent female teachers gave evidence of liberalization of existing constraints on female role behaviour expectations, 33 and 66 per cent of male teachers in Delhi and Bombay, respectively, were opposed to the idea of female equality.

The attitudes of the three age-groups, viz. 25-35 years, 36-45, 46 and above, were similar in Bombay while in Delhi those in the youngest age-group had the most positive attitude.

The responses of teachers towards pupils in classroom indicated that more than 66 per cent desired to move away from the existing traditional atmosphere. An equal number of female teachers had revealed a non-sexist attitude towards pupils in the classroom and those towards life were noticeably different. All strongly favoured the indiscriminatory participation of boys and girls in work situations in the classroom.

Teachers of public/private schools favoured greater equality within the class, moving towards egalitarian values both in Delhi and Bombay while those from Delhi were significantly less traditional in their outlook.

#### 7. SHIKSHANIKETAN—A LIFE CENTRED SCHOOL

Principal Investigators :

*Prof. H. P. Majumdar*

*Dr. N. P. Banerjee*

The main purpose of the study was to identify the inherent working model of the institution and to explore its effectiveness in regard to universalization of primary education, its qualitative improvement and the impact on the communities in respect of certain aspects of social change. A follow-up of the erstwhile students has also been attempted to see whether they have been able to act as potential change agents.

Besides tracing the origin and development of the institution, an attempt has been made to critically examine the process of curriculum development with special reference to its productive work component. A general profile of the institutions, its development, organizational and operational styles, curricular inputs, etc., have also been brought out. The possibility of adopting the working model of Shikshaniketan in similar situations as a strategy for universalization of primary education has also been examined.



**8. ACHIEVEMENT OF TRIBAL STUDENTS IN RELATION TO THEIR INTELLIGENCE, MOTIVATION AND PERSONALITY**

**Principal Investigator :**

*Dr. T. Singh*

The objectives of the study were to analyse the academic achievement of tribal students in relation to their intelligence, level of motivation, and personality pattern. Suggestions to improve their academic achievement were sought along with a study of psychological problems faced by tribal students.

A sample of 500 tribal boys of Class IX and 400 tribal boys of Class XI from the schools of Mirzapur District were selected. Kapoor and Singh's Hindi adaptation of Catell's Motivation Analysis Test was used to measure interest drives and strengths of their sentiment and value system. This objective device measures 10 dynamic structures covering adult motivation. Catell's Culture Fair Intelligence Test was used as it considerably reduces the influence of verbal fluency, cultural climate and educational level.

Among tribal students, the findings indicated that while low achievers were more warm-hearted, easy going and participative in comparison to high achievers, the latter tended to be more sober, prudent and serious as well as more practical, careful, conventional and regulated by external realities. Though the low achievers were more calculating, polished, worldly and shrewd, there were no difference as regards intelligence and ego strength between the two. Tribal student tended to be sober, prudent, serious and dependable, and also more shrewd, worldly and socially aware, when compared to other students.

**9. DIFFERENTIAL ABILITY PATTERNS OF HIGH SCHOOL PUPILS OF GRADES VIII TO X IN DIFFERENT AREAS OF GUJARAT**

**Principal Investigator :**

*Dr. K. G. Desai*

Performance in a high school examination has been consistently higher in the urban areas than in the semi-urban and rural areas. This difference cannot be completely explained away by stating that the intellectual capacity of urban students is better than that of the other two groups of students. The study aimed at analysing differences in

school achievement and finding out the ability patterns of school pupils in different areas of Gujarat in the different school subjects.

Besides, the Desai Bhatt Group Tests of Intelligence for measuring verbal intelligence, special tests for assessing non-verbal intelligence and verbal ability during the first session in Grades, VIII, IX and X and also achievement tests in science and on environment to Grades VIII and IX.

Ten areas were selected to represent different levels of urban/rural and industrial/agricultural nature. From them, a school, representative of normal institutions, was selected and one section of Grades VIII, IX and X, was selected from within that school.

The findings were :

1. There were no sex differences in verbal and non-verbal intelligence, verbal attitude, achievement in science and knowledge of the environment. However, in adjacent areas (e.g., urban, semi-urban and semi-urban-rural) significant differences were observed in the abilities tested.
2. In the two tribal areas tested, the mean scores of the tribal groups were not considerably different from the rural group and in fact were higher in a few cases. The type of awakening in a particular area appeared to be influencing the achievement of pupils.

10. A STUDY OF THE ADJUSTMENT PROBLEMS OF THE SCHEDULED  
CASTES AND THE SCHEDULED TRIBES STUDENTS IN  
RESIDENTIAL SCHOOLS OF RAJASTHAN

Principal Investigator :

*Dr. R.R. Singh*

The objective was to study the academic achievement of Scheduled Castes and Scheduled Tribes students in institutions of high repute, including public schools, along with their study habits, thinking and observational capacity, inter-personel values, fluency and flexibility traits, and adjustment in general, the problems encountered in school, and their socio-economic background.

The Scheduled Caste and Scheduled Tribe students of six special residential schools were selected. The study was restricted to students from Standards V to IX. The data were collected with the help of : (i) personal bio-data blank; (ii) interest record; (iii) study habit inventory; (iv) Creative Ability Test; (v) Ravens Standard Progressive Matrices; (vi) Gordon's Survey of Interpersonal Values; (vii) Rotter's Incomplete Sentence Blank; (viii) Problems checklist; (ix) Commulative records; and (x) Interview schedules. Heads, teachers and wardens of the selected institutions, parents, and the community were also interviewed.

The findings were :

1. Three cumulative record cards of the students over a three-year period indicated an improvement in performance. Sixty-four per cent of these students had been in residential schools for over 3 years.

Responses on the Study Habit Inventory revealed the presence of good study habits. The Creative Verbal Ability Test revealed a complete lack of originality, while fluency and flexibility scores were 50.5 and 40.3, respectively.

2. Responses on the Seven interest areas indicated a lack of crystallization of interests among the students. As regards their interpersonal values, a large proportion were conformists while few possessed leadership qualities. The sample was of average intellectual ability on the Progressive Matrices Test, and was well adjusted on Rotter's Incomplete Sentence Blank.
3. The majority of the students suffered from fear, anxiety and lack of self-confidence and had positive attitudes towards mother and school while towards society, elite group and the opposite sex they were negative; examinations and scholarships also caused worry and anxiety.
4. The majority of the students had academic problems like poor handwriting, difficulties in English and mathematics; lack of books and food. They suffered from uncertainty about future, inferiority and indecision particularly in regard to vocations and higher education. Some listed partiality and biased attitude on the part of teachers along with lack of recreational facilities as problems.

**11. SURVEY OF KAVAL TOWNS WITH REGARD TO THE  
AVAILABILITY AND USE OF TEACHING AIDS IN  
SCHOOLS**

**Principal Investigator :**

*Shri L.P. Bhardwaj*

This study was an attempt to find out the position of audio-visual teaching aids. Two hundred private and government boys' and girls' schools comprising pre-primary, primary, junior, high, and higher secondary schools, were sampled from Kanpur, Agra, Varanasi, Allahabad, and Lucknow.

The position of audio-visual aids with respect to availability and use of teaching aids, along with difficulties encountered in procuring appropriate aids, was studied; and use of these aids in respect of existing facilities of trained persons as also the administrative difficulties encountered in procuring them, was also assessed.

**12. SCHOOL CHILDREN AND THEIR READING HABITS**

**Principal Investigator :**

*Prof. P.D. Datta*

The study aimed at proving some basic ideas about the taste, need and attitude of children in selecting reading material in the context of their socio-economic background.

The exposure to books prescribed in the school syllabus, habit of reading books beyond the school syllabus, and the source of getting such books, exposure to magazines and topics of interest, and different media of mass communication, viz., newspaper, radio, and television, were studied.

**The study has revealed :**

1. The English medium schools cover a wider syllabus than any other category.
2. The English was the least liked subject among primary and sponsored school students in urban and rural areas.

3. The incidence of reading books other than those prescribed by the school, was almost nil in the lower classes. This, however, gradually increased in the higher classes. Stories, fables, adventures, and detective stories, are the areas of higher interest beyond the school subjects; sports and movies also attract a significant number of students of higher classes. Comics cover the most attractive reading material outside the school subjects.
4. Reading the newspaper was most widespread in urban areas. The children's page, comic series, stories, sports and quiz were the most popular interest-generating subjects in newspapers as well as in magazines.
5. The parents/guardians play the most active role in deciding the reading materials for their wards, while most of the rural primary school students decide these themselves.

#### 13. ESTABLISHING NORMS FOR SPEED AND COMPREHENSION IN READING TELUGU IN STANDARDS III TO VIII

Principal Investigator :

*Prof. R. Srinivasa Rao*

Besides establishing norms for reading speed and comprehension, the study aimed at comparing the performance of boys and girls, and children from different areas and categories of schools and varied home backgrounds.

The study was confined to vocabulary and paragraph comprehension of students of Standards III to VIII in some selected primary, upper primary and secondary schools of Andhra Pradesh. One thousand students from each grade were selected by stratified random sampling from all over the State.

Norms were established in terms of percentile ranks, grade equivalents and total reading scores, as well as the reading speed for Classes III to VIII. Information regarding school factors and home background was collected through questionnaires and interviews.

**The findings were :**

1. The scores on vocabulary, paragraph comprehension and reading speed were normally distributed in each of the Standards III to VIII. There was high correlation among each of these components of reading skill.
2. Students living in urban areas performed better on reading tests than their counterparts in rural areas, probably because of better reading facilities; those from schools in deprived areas did not perform as well as those from the other areas. On the whole, there was no difference in the reading attainment of boys and girls.
3. School conditions, like provision of reading facilities and availability of books in the school library, contributed to their reading attainment; similarly those with a good home background, in the form of educational level of parent and provision of reading activities of children, achieved better.

#### 14. EDUCATIONAL BACKWARDNESS OF SCHEDULED CASTE STUDENTS AND A NEED ORIENTED PLAN FOR THEIR DEVELOPMENT

Principal Investigator :

*Dr. R.P. Singh*

The objectives of the study were :

1. Assessment of educational backwardness of the Scheduled Castes in terms of :
  - (a) their enrolment ratio at the various levels of education as compared to the general population ;
  - (b) their development rate at various educational levels; and
  - (c) their performance at various educational levels as compared to the general educational standard.
2. Identification of their social, economic, educational and political needs.

3. Preparation of a plan for their educational development so as to satisfy their needs.

Multistage stratified sampling was resorted to select the samples from the primary, middle, and secondary levels of education. A total of 343 respondents were selected.

The findings were :

1. At the lower level of education, 41.5 per cent had nuclear families as compared to 10.2 per cent at the higher levels.
  2. Nearly 50 per cent of rural respondents were casual labourers while 10 per cent were regular labourers. Twenty-three per cent respondents were engaged in service occupations. Only 27 heads of households were engaged in traditional caste professions.
  3. The average monthly income of families from the higher level of education, was Rs. 552 at current prices, more than twice the monthly average for those at the lower level.
  4. Four per cent of guardians of higher level students and teachers were illiterate, implying speedy educational transmission from generation to generation.
  5. More than half of the non-Scheduled Castes were unwilling to mix and live together with the Scheduled Castes. More literate persons than illiterate ones justified the relevance of the caste system.
15. VOCATIONALIZATION AT THE HIGHER SECONDARY STAGE OF THE 10+2+3 PATTERN OF EDUCATION

Principal Investigator :

*Dr. Smt. J.K. Pillai*

In Tamil Nadu, 20 per cent students are enrolled in vocational courses. In Madurai district, in the 100 odd higher secondary schools offering vocational courses, only about 20 vocational courses are offered.

The objectives of the study were to identify and select need based vocations in which there are opportunities for employment or self-employment either at present or immediate future in Madurai district.

Information was collected on locality-based, development-oriented, resource-based, self-employment-oriented, employment-oriented traditional/family-based vocations.

A Vocation Identification Questionnaire II was constructed to collect information on job-openings for school leavers, jobs in which there are shortage of suitably trained persons, job-training facilities, developmental schemes/activities, and expected job openings, and suitable vocations which could be introduced at the +2 stage.

Forty vocations were identified and categorized into : (i) paper technology, (ii) plastic technology, (iii) ceramic technology, (iv) food technology, (v) leather technology, (vi) mechanical engineering, (vii) chemical engineering, and (viii) miscellaneous. On the basis of 29 vocations, the Vocational Choice Inventory (VCI) was developed.

Curriculum development was undertaken for five vocations. To assess the effectiveness of vocationalization, an opinion checklist was developed and administered to 100 vocational stream students who had just completed the course, 60 teachers handling the courses, and 100 parents, industrialist and business people. The findings indicated that while 15 per cent students intended to set up their own workshops/factories/industries, 60 per cent expressed finances as a reason for not doing so. Twenty-five per cent desired to seek employment in private/public enterprises and as many as 40 per cent intended to apply to Arts/Science or professional colleges for higher education. Only 65 per cent were desirous of pursuing an advanced course in their area of specialization. As regards teachers and the community, only 20 per cent felt that students were adequately trained to start, independently or jointly, a private/public enterprise; 65 per cent considered the vocational stream suitable for less able students, while 55 per cent felt that vocational stream could be extended to college, as well.



## Publications

Under the scheme of publication grants for doctoral theses and monographs, six publications and a workshop were supported by the ERIC.

### LIST OF PUBLICATIONS COMPLETED IN RESPECT OF OUTSIDE AGENCIES IN 1981-82

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<i>S. No.</i>	<i>Title of the Project</i>	<i>Name and Address of the Principal Investigator</i>
<i>Ph. D. Theses/Monographs</i>		
1.	Education and Politicization (published under the title <i>Education and Political Culture in India</i> )	Dr. E. Haq Centre for the Study of Social Systems J.N.U., New Delhi
2.	School Complex	Prof. Jai B.P. Sinha ANS Institute of Social Studies Patna
3.	Some Non-intellectual Characteristics of Over and Under-Achieving Engineering Students	Dr. R.N. Nagpal L-16, Green Park New Delhi
4.	Evolution of the Concept and Practice of Inspection and Supervision of Secondary Schools in Maharashtra— 1854 Onwards	Shri A.V. Gadgil Indian Institute of Education Pune
5.	A Study of Values and Voca- tional Preferences of Inter- mediate Class Students in U.P.	Dr. P.C. Katiyar Indore University Indore
6.	A Critical Assessment of Teaching Punjabi in the Punjab State at the School Stage	Dr. Inderpal Singh Punjab School Education Board Chandigarh
7.	Workshop on Introducing Social, Moral and Spiritual Values in School Curriculum	Shri S.K. Sanyal Sri Aurobindo Centre Adhchini, New Delhi

Eight projects were completed in the NIE/Units of the NCERT. They are indicated below :

<i>S. No.</i>	<i>Title</i>	<i>Principal Investigator</i>
1	2	3
<i>Scheduled Caste and Scheduled Tribe Education Unit</i>		
1.	A Study of the Factors Impeding Universalization of Elementary Education in Tribal Areas of Rajasthan	Dr. B.P. Awasthi
<i>Department of Teacher Education</i>		
2.	Effect of Classroom Behaviour Training (CBT) on the Classroom Questioning Behaviour of Teacher	Dr. N.K. Jangira
3.	Effectiveness of Different Strategies of Integration of Teaching Skills in Developing General Teaching Competence of Student Teachers	Dr. R.C. Das Dr. B.K. Passi Dr. N.K. Jangira Dr. Ajit Singh
<i>Department of Teaching Aids</i>		
4.	Development of Learning Materials for the Non-formal Education of Girls in the Age Group II—14 Years in Rural Areas	Dr. S.P. Mullick
<i>Primary Curriculum Development Cell</i>		
5.	A Study of Evaluation of Text-books and its Role in Formal Education in the Context of Changing Society from Ancient to Modern Period	Dr. B.S. Goel and J.D. Sharma

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*Women's Education Unit*

6. Undifferentiated Curricula in States and Union Territories :  
A Status Study
- Smt. Janak Duggal

*Educational and Vocational Guidance Unit*

7. Research on First Generation Learners
- Dr. (Smt.) Perin H. Mehta  
Dr. (Smt.) C. Dhar

*Non-Formal Education Unit*

8. Compilation and Linguistic Analysis of Hindi Vocabulary of Children of Primary Classes
- Dr. K.G. Rastogi
- 

The main features of the above research projects, including their findings, are briefly given below.

1. A STUDY OF FACTORS IMPEDING UNIVERSALIZATION OF ELEMENTARY EDUCATION IN TRIBAL AREAS OF RAJASTHAN

Principal Investigator : *Dr. B.P. Awasthi*

The objectives of the study were to find out :

- (a) what educational facilities were available to tribal students ;
- (b) the factors impeding universalization of elementary education in tribal areas; and
- (c) the measures necessary for eliminating these impeding factors.

Rajasthan has the largest tribal population and a low enrolment ratio among Scheduled Tribes children. The study was limited to Sheo tehsil in Barmer district.

**The findings revealed :**

1. That the average distance of the school from the village ranged between 2 to 60 kilometres. Approximately 71 per cent teachers, education officers, and community teachers felt that the distance that children had to cover is too long.
2. Most of the existing schools were single teacher schools and the problem of enrolment was worse in these. 77.8 per cent of the officials considered the non-existence of such schools to be an obstacle in promoting enrolments. They suggested that norms regarding the ratio of children per school should not be strictly adhered to further. They suggested that mobile teachers/schools should be set up to cater to scattered tribal habitations.
3. Not a single girl was enrolled in school from any of the 5 villages studied.
4. There was a general lack of the awareness of the available facilities for education. Thirteen of the 15 community leaders interviewed did not show any concern about the need for education. Over 50 per cent parents had not been approached by either the teacher, community leaders or education officers to send all their children to school. All the teachers, however, claimed that they had approached the parents. On the whole, the teachers found it easier to persuade the non-tribal students to send their children to school.
5. Interviews and the investigator's personal visits to the location revealed that although tribal children were on the rolls, they did not really attend. Sometimes the teacher just locked the school and stayed away without any intimation to the community.
6. Over 99 per cent parents felt that their children were being deprived of education since they were engaged in domestic occupations. Besides domestic work resulting from poverty and lack of school or distance to school, caste and sex discrimination were some of the other reasons.
7. About 97 per cent parents stated that if they did not have to incur

expenditure on children's education, such as on uniforms and stationery, they would send all their children to school.

## 2. EFFECT OF CLASSROOM BEHAVIOUR TRAINING (CBT) ON THE CLASSROOM QUESTIONING BEHAVIOUR OF TEACHERS

Principal Investigator :

*Dr. N.K. Jangira*

The study was primarily concerned with the development of effective classroom questioning behaviours in the teachers. The CBT was designed to improve teacher behaviours relating to classroom questioning right from structuring through delivery and distribution to pupil-response management. The training used paper-pencil exercises followed by practice of the questioning behaviour in simulated teaching situations. Pre-test-post-test control group design was employed to assess effectiveness of the CBT. The two groups had 10 teachers, each matched on qualifications, grade levels and subjects they taught. The Classroom Questioning Behaviour Observation System (CQBOS) was used for pre-and-post-training observation. Observation schedules, comprising of teacher behaviours under different questioning dimensions, were used for providing feedback during practice. The gain scores of the two groups on each of the dimensions of classroom questioning, as well as teacher behaviours comprising the dimensions, were tested for significance between means employing test.

The study purported to test six hypotheses relating to change in the classroom questioning behaviour of teachers. The findings emerging of the study were that as compared to teachers without the CBT, teachers with the CBT used significantly more questions at the end of the experimental treatment, used significantly less lower order questions, and more middle and higher order questions showed significantly higher improvement in the structural characteristics of relevance, grammatical correctness, precision and clarity of questions used in the classroom, and showed significantly higher improvement on the question delivery component behaviours of voice and pause. The results on the component of speed were not significant as the teachers in both the groups had high scores right from the beginning, designated more non-volunteers for response, and improved their pupil-response management behaviours (accepting and prompting). The results were, however, not found to be significant on seeking further information (pretraining scores being high) and structuring

which was absent from the control groups. The teachers with the CBT used this behaviour. The study has shown that it is possible to improve the classroom questioning behaviour of teachers using the CBT.

### 3. EFFECTIVENESS OF DIFFERENT STRATEGIES OF INTEGRATION OF TEACHING SKILLS IN DEVELOPING GENERAL TEACHING COMPETENCE OF STUDENT TEACHERS

Principal Investigators : *Prof. R.C. Das, Shri B.K. Passi  
Dr. N.K. Jangira, Dr. Ajit Singh*

The rationale for requiring student-teachers to observe lessons given by their teachers is that they would imitate their teaching behaviour, implying that the master teacher is the master craftsman and student-teachers would through observation, imitation and practice, acquire his teaching behaviour. Usually the student-teacher is not confident whether he would be able to control the pupils, communicate with them effectively and follow the planned sequence of activities. Micro-teaching is effectively able to improve the quality of present day teaching practice programme. In this approach, student-teachers are provided a simplified and controlled situation in which they undertake practice for acquiring teaching skills, one at a time.

The objectives of the study were :

1. to determine the effectiveness of 'no integration strategy', and 'summative model' of integration of teaching skills in developing general teaching competence in student-teachers ;
2. to study the relative efficacy of 'no integration strategy', and 'additive model' of integration of teaching skill in developing general teaching competence in student-teachers ;
3. to determine the comparative effectiveness of 'no integration strategy' and 'diode strategy' of integration of teaching skills in developing general teaching competence in student-teachers ;
4. to study the relative effectiveness of 'no integration strategy' and 'summative model' of integration of teaching skills upon integrating the selected teaching skills ;

5. to determine the relative efficacy of 'no integration strategy' and 'additive model' of integration of teaching skills upon integrating the selected teaching skills ;
6. to determine the relative efficacy of 'no integration strategy' and 'additive model' of integration of teaching skills upon integrating the selected teaching skills; and
7. to study the relative efficacy of 'no integration strategy' and 'diode strategy' of integration of teaching skills upon integrating the selected teaching skills.

The study was undertaken with 264 students, teachers, and M. A. (Education) students from 13 colleges of education. The General Teaching Competence Scale, and the Indore Teaching Assessment Scale, were used to measure general teaching competence and competence to integrate learnt skills. An Evaluation Proforma for Teaching Skills was used to observe acquisition of skills along with the Ahluwalia's Teacher Attitude Inventory. Effectiveness of the integration strategies was studied between a group of student-teachers proceeding to block student teaching immediately after practising the teaching skills using micro-teaching (no integration strategy group or vicarious integration group), and a group with the intervention strategies on Summative Model, Diode Model or Additive Model.

The main findings revealed that summative integration strategy tends to improve teaching competence as well as the quality of intervention of teaching skills, the additive strategy of integration of teaching skills does not improve general teaching competence of student-teachers but tends to improve the quality of integration of teaching skills; the diode strategy of integration tends to improve the general teaching competence of the student-teacher as well as the quality of intervention of teaching skills but the latter is not significant.

#### 4. DEVELOPMENT OF LEARNING MATERIALS FOR NON-FORMAL EDUCATION OF GIRLS IN THE AGE-GROUP 11-14 YEARS IN RURAL AREAS

Principal Investigator :

*Dr. S. P. Mullick*

The main objective was to develop learning materials on principles of programmed learning for non-formal education of girls in rural areas

in the age-group 11-14, on health education. The study was divided into two phases : (i) the effectiveness of tape-slide presentation for teaching illiterate children, and (ii) attitude of teachers towards the use of tape-slide learning materials in non-formal education.

A try-out of the tape-slide programme on 11-14 year old girls outside school revealed that the tape-slide presentation is a viable means of teaching illiterates without the assistance of a teacher. Teacher trainees felt that the tape-slide materials were useful for non-formal education, making the lesson interesting and more useful in large classes; that the materials can be used to teach illiterate persons but did not think that was possible, without a trained teacher and that it reduced the teachers' work load and was better than the lecture method.

6. A STUDY OF THE EVOLUTION OF THE TEXTBOOK AND ITS ROLE  
IN FORMAL EDUCATION IN THE CONTEXT OF CHANGING  
SOCIETY FROM ANCIENT TO MODERN PERIOD (WITH  
SPECIAL EMPHASIS ON THE MODERN PERIOD)

Principal Investigators : *Dr. B. S. Goel, Shri J. D. Sharma*

The major objectives were to have a record of the place of the textbook in school education in the past in the context of society and to understand its position as an aid in the teaching-learning process.

The role of textbook was traced right from the Vedic period to the post-Independence period. A significant revelation as regards the post-Independence period was that textbooks had to meet several challenges such as the great demand for education and its concomitant expansion, deteriorating quality of secondary education, and caste and communal turmoil, and divisive tendencies in the country.

6. UNDIFFERENTIATED CURRICULA IN STATES AND  
UNION TERRITORIES : A STATUS STUDY

Principal Investigator : *Smt. Janak Duggal*

The main objectives were to find out which of the States had common curricula for both the sexes till the end of Class X, which States had differentiated curricula for girls, and which subjects had a sex bias in the curricula. The study of syllabi of 19 States and Union Terri-



tories revealed that 10 States, viz., Assam, Bihar, Goa, Daman & Diu, Gujarat, Himachal Pradesh, Karnataka, Maharashtra, Madhya Pradesh, Rajasthan and Tamil Nadu; and eight Boards, viz., Delhi, Haryana, Manipur, Nagaland, Orissa, Punjab, Tripura and West Bengal, prescribed different curricula for boys and girls at the secondary stage.

Mathematics, science, home science and physical education were the subjects which had sex bias. Where mathematics was a compulsory subject in Classes IX and X, girls had the option to offer domestic science instead. In all the syllabi, home science was either an optional subject or provided a separate stream. Physical education activities were listed separately for the boys and girls.

Because of the choice between home science and mathematics, girls tended to opt for the former. Had they been taught mathematics and science just like the boys, they would have been in a position to compete with men later on.

## 7. RESEARCH ON FIRST GENERATION LEARNERS

Principal Investigators : *Dr. (Smt.) P.H. Mehta, Dr. (Smt.) C. Dhar*

The study aimed at investigating the psychological and educational characteristics of first generation learners and identifying areas in which they were deficient in comparison to non-first generation learners, so as to plan suited intervention programmes. The study, conducted at two levels, viz., Class I and Class X, focused on differences in the two categories of students with regard to cognitive abilities, school achievement and attendance, personal-social characteristics, home background variables like caste, father's occupation and income, parents' involvement in the child's education, physical resources of the family and educational and occupational aspirations, choices and plans. Children whose parents had not studied beyond Class II were categorized as FGL while those children in whose case even if one parent had studied upto Class V were categorized as NFGL.

The study indicated that :

1. The FGL were lower on each of the three sets of variables—in home background, cognitive abilities and teachers' perception.

Even in the urban, semi-rural and rural areas, the FGL group was lower on several variables from the sets of variables under study. In the urban area, however, there was no difference in academic achievement and teacher perceptions and attitudes probably, as a result of which, in the semi-rural and rural areas unfavourable marks and personality ratings were assigned to the FGL. The analysis of covariance revealed that some of the differences were associated with parental educational level while others were related to 15 covariates—father's income and cognitive ability.

2. The comparison of Class X FGL and NFGL indicated that the latter were significantly superior on verbal and numerical ability and in achievement in Hindi, mathematics, science and social studies.
3. The differences in social and real self-concept and anxiety were not significant. The occupational aspirations of NFGL groups were higher. As regards work values, education was ranked higher by the NFGL in the semi-urban area whereas no difference was noted in the Delhi sample.

#### 8. COMPILATION AND LINGUISTIC ANALYSIS OF HINDI VOCABULARY OF CHILDREN OF PRIMARY CLASSES

Principal Investigator :

*Prof. K.G. Rastogi*

The aim was to compile verbal, written and reading vocabulary of Hindi-speaking children of Classes I to V. This study also included structural, grammatical and semantic analysis of vocabulary, the purpose being to prepare different types of tables on the basis of number and frequency of words and to prepare lists of words on the basis of structure, grammar, and meaning.

In order to prepare different lists and tables, a questionnaire was prepared to collect the verbal vocabulary of children of primary schools. Answers were obtained from children in response to the questionnaire and other supplementary questions were also asked. Children wrote essays on different topics and small paragraphs and completed sentences. Reading vocabulary was collected from the textbooks of different subjects presented for Classes I to V. Data were collected from the schools

of Bihar, Haryana, Madhya Pradesh, Rajasthan, Uttar Pradesh, Chandigarh, and Delhi.

### On-going Projects

In the year 1981-82, 24 projects were sanctioned to individuals and institutions. These included publication grants for doctoral thesis and research monographs. They are listed below :

<i>S. No.</i>	<i>Title of the Project</i>	<i>Name and Address of the Principal Investigator</i>
1	2	3
1.	A Study of Creativity in School Teachers as Measured by Mehdi's Test in Relation to their Self-Concept, Attitude towards Teaching and Classroom Verbal Interaction	Dr. Ajit Singh Department of Teacher Education NCERT
2.	Achievement of Norm Study of Elementary School Children of Tamil Nadu with Special Reference to Certain School Factors and Student Composition (Ph.D. Thesis)	Shri M. Duraiswamy, SITU Council of Educational Research Madras
3.	An Investigation into the Problems of Adjustment of Blind Students Reading in Secondary Schools of West Bengal	Dr. N. Banerjee Shantiniketan
4.	An Investigation into the Faculty Participation in the Administration of Institutions Offering Professional Courses of Study	Dr. R.C. Srivastava Department of Education University of Delhi
5.	An Exploratory Study of Certain Aspects of Classroom Behaviour of Science Teachers in Macro- and Micro-Teaching Situations Using Interaction Analysis (Ph.D. Thesis)	Dr. Brij Kishore Sharma MMPG College Kalakankar, Partapgarh

1	2	3
6.	An Inquiry into the Relative Effectiveness of Linear Style Book Format and Multi-media Programmes (Ph.D. Thesis)	Dr. S.P. Mullick Department of Teaching Aids NCERT
7.	Some Psychology and Social Factors Related to Vocational Aspirations of Rural and Urban High School Children (Ph.D. Thesis)	Dr. S.S. Chaddha Kothi No. 2082 Sector 15-C Chandigarh
8.	A Study of the Educational Ideas of Rabindranath Tagore and their Relevance (Ph.D. Thesis)	Dr. S.S. Roy Deptt. of Education Vishwa Bharati Shantiniketan
9.	A Study of Dimensions of Administration Leadership in Relation to Group Acceptance and Some other Educational Aspects in the Colleges of Meerut University (Ph.D. Thesis)	Dr. S.P. Kaushik Deptt. of Education NAS College, Meerut
10.	Case Studies of Scheduled Tribe Failure Students at the Middle and Matriculation Level in Himachal Pradesh	Dr. Lokesh Kaul School of Education H.P. University Simla
11.	Preparation of Improvised Educational Teaching Aids with the Help of Waste Materials	Sri N.K. Srivastava Govt. STC School Garhi Banswara
12.	Fostering Cognitive Development in First Standard Pupil (Ph.D. Thesis)	Dr. T. Padmini Deptt. of Education Mysore University Mysore
13.	A Study of the Scheduled Caste Awareness of the Schemes for Their Educational Progress (Ph.D. Thesis)	Dr. S.K. Yadav NCERT

1	2	3
14.	Gujars—Their Attitude Towards Social Change, Education and Modernization	Dr. M.L. Lidhoo Deptt. of Education University of Kashmir Srinagar
15.	Rorschach Indicators in Normal and Clinical Groups in Military Population	Dr. B.L. Dubey Deptt. of Business Management Panjab University Chandigarh
16.	A Study of the Feasibility of Involvement of Female Health Personnel in Women Education Programmes in Rural Community	Prof. (Smt.) Purnima Mathur Deptt. of Humanities and Social Sciences I.I.T., New Delhi
17.	Relation of Diet and Growth in Intellectual Growth Among School Children in Orissa	Dr. Shrishia Patel H.O.D., Anthropology BJB College Bhubaneswar
18.	An Evaluation of the Non-detention System From Different Angles	Dr. A.V.R. Reddy Deptt. of Education S.V. University College Tirupati
19.	Locational Study of Educational Institutions of Udaipur District Act : A Study Based on the Inter-Disciplinary Approach	Dr. M. Makhija Lokmanya Tilak Teachers College Dabok, Udaipur
20.	Disabled Children in Normal Schools	Dr. R.S. Shukla Vidya Bhawan Govindram Seksaria Teachers College Udaipur

1	2	3
21.	A Study of the Relationship Among Attitude, Job Satisfaction, Adjustment and Professional Interests of Teacher Educators in India	Dr. J.C. Goyal Department of Teacher Education, NCERT
22.	An Experimental Study of the Differential Effects of Varying Accounts of Information in Perception (Ph.D. Thesis)	Dr. Parkash Chander Verma D.A.V. College Gorakhpur
23.	Cognitive Style and Cognitive Ability of Tribal and Non-Tribal High School Pupils— A Comparative Study of Inter-Relationship	Dr. B. De Deptt. of Psychology Patna
24.	Identification of Local Regional Need Based Vocations for Girls and Women and Location of These Schools in Medak District	Dr. (Km.) Dollie Shoney Women's Education A.P. State Council Hyderabad

The following projects were sanctioned to the faculty members of the Departments/Units at the NIE, RCEs and Field Units.

<i>S. No.</i>	<i>Title</i>	<i>Principal Investigator</i>
1	2	3

*Child Study Unit*

1.	A Comparative Study of Child Reading Practices of High and Low Achievers in Socio-economically Disadvantaged Groups	Dr. V. Kaul and Smt. C. Ramachandran
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1	2	3
2.	An Evaluative Study of the Different Models of Pre-School Teacher Training Programmes of Tamil Nadu From the Point of View of Their Impact on Children	Dr (Smt.) R. Murlidharan
	<i>Curriculum Group</i>	
3.	A Study of Implementation of the New Curriculum Under the 10+2 Pattern of Education	Dr. G.L. Arora
	<i>Department of Education in Science and Mathematics</i>	
4.	Try-out of an Innovative Individualized System of Instruction in Physics	Dr. R.N. Mathur
5.	Try-out of an Innovative Individualized System of Instruction in the Class XI Mathematics Course	Dr. R.N. Mathur
	<i>Department of Teacher Education</i>	
6.	A Comparative Study of Teachers' Profiles in their Rural and Urban Settings in the Elementary School System	Dr. J.C. Goyal
7.	Status of Teachers in India	Dr. J.C. Goyal and Smt. R.K. Chopra
	<i>Educational Vocational Guidance Unit</i>	
8.	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	Prof. (Smt.) P.H. Mehta

1	2	3
9.	Behavioural Effects of Yoga Exercises on Students Under Central Schools Organization	Dr. K. Kumar
10.	Evaluation of the Effectiveness of Guidance Programmes in the Secondary Schools of Delhi	Dr. J. S. Gaur
<i>Primary Curriculum Development Cell</i>		
11.	A Study of the Effect of Psycho-Social Factors on the Comprehensibility of Language Used in the Text-books at Primary Level	Dr. I. S. Sharma
<i>Women Education Unit</i>		
12.	Identification of Local Regional Need-based Vocations for Girls and Women for Vocationalization of Education	Dr. (Km.) S. Bisaria
13.	Determinants of Under Achievement of Girls in Mathematics (including Socially Handicapped Girls)	Dr. (Smt.) Surja Kumari
14.	Undifferentiated Curricula in the States and Union Territories : A Status Study	Smt. Janak Duggal
<i>Regional College of Education, Bhopal</i>		
15.	A Research Study for Identification of Teaching Skills and Training Strategy for Implementing Environmental Approach at Primary Level	Prof. J.S. Rajpur



1	2	3
16.	Identification of Instructional Skills and Development of Related Instructional Materials of the Centres of Non-formal Education	Dr. J. S. Grewal
<i>Regional College of Education, Bhubaneswar</i>		
17.	Conservation of Aquatic Ecosystem in Orissa	Dr. P.K. Durani
<i>Regional College of Education, Mysore</i>		
18.	Designing of Prototype Physics Laboratory for Higher Secondary School/Junior Colleges on the Basis of Indigenously Available Components, Expertise and Know-how	Prof. A.N. Maheshwari
19.	Physics Resources Material, Volume III	Prof. A.N. Maheshwari

# 14

## Extension And Working With The States

**T**HE extension work of the Council involves closely working with the States, the State-level institutions, and other professional organizations of teachers as well as teacher educators. The sixteen functioning Field Offices of the Council undertake such

programmes which meet certain needs of the States, and communicate to the National Institute of Education and the Regional Colleges the type of programmes which the States feel would meet some of their requirements.

### **National Integration Project**

Organization of national integration camps for school children and teachers is one of the major activities of the National Integration Project. These camps bring together students and teachers from different States and by providing the opportunity to live together to help students and teachers to understand and appreciate their diverse cultural heritage. Seven inter-State camps for students and three camps for teachers were organized during 1981-82. About 525 students and 400 teachers, drawn from all the States and Union Territories, participated in these camps.

### **Teachers' Camp On Educational Use Of Puppetry**

The camps being organized for teachers have been given a new dimension by introducing training in the art of puppetry which is one of the most powerful medium of mass education. The first camp of its kind which was entirely devoted to the educational use of puppetry was organized in Delhi in October 1979. Since then five camps have been organized in different parts of the country. Teachers, who have attended these camps, have found puppetry as the most potential media for their effective classroom teaching. A teacher who is found to be interested in puppetry is given one month's total training and orientation by enabling him to attend two such camps, each of 15 days' duration. This enables him to translate the experiences gained in the camp into concrete classroom activities and also to give an idea about this useful art to his fellow teachers of his District/State.

During the year, the National Integration Project brought out another book on puppet plays entitled *Indradhanush* under its scheme "Production of Supplementary Reading Material for School Children and Teachers".

### **Working with the States**

The NCERT has 16 Field Offices in different States. These Offices maintain a close liaison with the States, informing them of the activities

of the Council. The emphasis during the year was on taking up activities which would contribute to the improvement of the quality of instruction in schools of the States. For this purpose, the Field Offices conducted a number of programmes of their own and also collaborated with the States. Some outstanding programmes organized by the different Field Offices during the year are described below.

The **Ahmedabad** Field Office continued to look after the ten Non-formal Education Centres, eight in rural/slum areas of Ahmedabad, one in Tilakwada, District Baroda, and another in Kavi, District Broch. A non-formal education teachers' guide book was developed in Gujarati and teachers were provided with training. The centres were provided with charts, pictures, and other library materials. Special instructional material was developed in the Gujarati language. Special attention was given to the irregular and below average students. Monthly evaluation was recorded as per detailed proforma developed. Efforts were made to get these children admitted in regular schools in the area. More than 300 students have benefitted from the Non-formal Education Centres so far.

The **Allahabad** Field Office was associated with the orientation and development of programmes on non-formal education of U.P. Education Department. It supervised the functioning of the non-formal education project in Jakhani (Varanasi) area. The Office also organized training of key persons about experimental project in elementary teacher education. Some 45 persons were orientated. Sample experimental and innovative projects were got designed.

The **Bangalore** Field Office continued the experimental programme of universalization of elementary education through the non-formal system in a cluster of ten villages in the Sathanur Hobli of Kanakpura Taluk, Bangalore District. The enrolment in these Centres was around 450 and the daily attendance was over 80. During the year, the progress made by children was assessed by conducting suitable tests and those who had attained sufficient proficiency were promoted to the next higher standard. With a view to imparting selected vocational skills to children enrolled in these Centres along with literacy, the Field Offices made efforts to tap local resources. Workshops were set up in two villages and training in wirebending, welding and plumbing was imparted. Energy food supplied under midday meals programme helped

in improving the attendance in these centres and enabled children from the economically weaker sections to attend without any difficulty.

The Bhopal Field Office received 78 experimental projects from the extension services centres of the different colleges of education. An amount of Rs. 7000/- was sanctioned for 58 experimental projects. A review-cum-orientation programme was organized from 4 to 8 December 1981, for resource persons for developing experimental projects in schools in Madhya Pradesh. Fourteen participants joined this course.

The Non-formal Education Centres at Multai, started in January 1979, made good progress. Fifty-nine students appeared at Class V examination out of which 41 passed. The Office also concentrated on training of field teachers, preparation of instructional materials, improvement of methodology and encouraging cultural and vocational activities.

The Bhubaneswar Field Office continued the ten Centres of Non-formal Education. These Centres have been opened in a cluster of ten villages, one in each village, with a large percentage of Scheduled Caste and Scheduled Tribe population and situated in a hilly area of the Danagadi Block in Cuttack District. Children enrolled in these Centres made satisfactory progress in literacy, numeracy and health education. Some of these have been regularly transferred to formal schools.

Twenty-seven experimental project proposals were received from primary and pre-primary school teachers of Orissa State. After scrutiny, financial assistance was granted to 14 proposals. Grant-in-aid of Rs. 2920 was released to them. The Oriya version of the booklet entitled "A Scheme of Assistance for Experimental Project" was distributed amongst extension services centres and schools in order to supply detailed information about the scheme.

The Calcutta Field Office organized a three-day workshop for teachers and headmasters of West Bengal from 21.3.82 to 23.3.82 in Siliguri on experimental projects. The main purpose of the workshop was to encourage schools to undertake innovative projects directed towards the improvement of classroom practice and related activities and to encourage them to adopt scientific approaches to the solution of their problems.

An orientation-cum-production workshop for field supervisors and

field workers of the Non-formal Education Centre was organized in Kharagpur from 26 to 31 October 1981.

The **Chandigarh** Field Office organized a three-day workshop on planning experimental projects from 15 to 17 March 1982. During the workshop, each of the participating teachers developed experimental project proposal.

The **Gauhati** Field Office participated in a vocational guidance seminar organized by the Directorate of Public Instruction, Assam in an orientation course for supervisors for non-formal education programme organized by the Directorate of Elementary Education, Assam; in an adult education symposium organized by the State Social Education Department, Assam; and in a conference on universalization of elementary education of Janata Bhavan, Dispur, Gauhati, etc.

The **Hyderabad** Field Office conducted non-formal education programme in a cluster of village at Tripparthy.

The **Jaipur** Field Office organized a workshop from 15.2.82 to 20.2.82 at Bassi to develop model lessons for non-formal education. Ten teachers from primary and secondary schools and non-formal education centres participated in the workshop. Twenty-four lessons in the form of poetry, story, dialogue, auto-biography and letters were developed. These lessons were later edited.

Another workshop was organized from 22 to 27 March 1982 to prepare teaching aids for non-formal education. field workers of the Non-formal Education Centres participated in the programme. About 25 teaching aids were prepared; these can be used in teaching number system, language, and science.

A workshop of ten days' duration was organized to write a second book on mathematics for non-formal education. Participants visited the villages and prepared questions to solve their mathematical problems. The book was later edited.

The **Madras** Field Office arranged special lectures on teaching language for non-formal education students. Two hundred and fifty slates were distributed to the non-formal education students. Non-formal education field workers were addressed about how to attract

children to the Centres. Practical training in vocational subject of ink-making was provided.

The Patna Field Office conducted an orientation seminar on experimental projects for co-ordinators and headmasters, at Motihari during 26-24 December 1981. The main focus was on improvement of quality of classroom teaching and the personal academic growth of the teachers through their involvement in experimented projects.

The Office continued its nine Non-formal Education Centres in Sadar Block of Samastipur District established in December 1979. Materials used in the Centre included primers published by the NCERT, children's magazines, co-curricular activities, SUPW activities, etc.

Forty-eight experimental project proposals were received from different schools of Bihar through the extension services centres. The proposals were scrutinized by a Screening Committee on 2 March 1982 and 14 proposals were considered worthy of financial assistance. However, only nine schools signed the papers in time and received the grant.

The Pune Field Office organized a training programme in education of rural gifted children in Maharashtra in collaboration with the State Institute of Education. A workshop in vocationalized commerce course for +2 stage was organized in collaboration with the Directorate of Technical Education, Bombay, and the Board of Secondary and Higher Secondary Education, Pune. An orientation course in sciences for +2 stage teachers was organized in collaboration with the Marathwada Board of Secondary and Higher Secondary Education, Aurangabad.

The Shillong Field Office, like others, helped in the organization of State-level toy-making competition, National Talent Search Examination, review of the UNICEF assisted projects, universalization of elementary education in the State; organization of the vocational courses at +2 stage, and in non-formal education programmes.

The Srinagar Field Office organized a 4-day workshop at District Institute of Education, Rajouri, Jammu Division, in January 1982, for explaining the Council's scheme of Assistance for Experimental Projects in Schools to a group of 20 teachers from secondary schools. As many as 17 projects were developed by the participants in different school subjects. A meeting of the Screening Committee was arranged at

Jammu on 6 March 1982 for scrutinizing and consideration of the project proposals. The Committee accepted 4 projects straightaway. In regard to others the Committee either suggested modifications or did not find them worth pursuing.

The Trivandrum Field Office organized a five-day programme in experimental projects for the teachers of Lakshadweep at Agathi. Necessary academic support was provided.

Two orientation programmes of five-days' duration were organized for training field workers and supervisors of the Non-formal Education Centres run by the Unit. They were trained in productive activities and developing curriculum and instructional materials relevant to non-formal education.



# 15

## Search for Talent

**A**S in the past, the Council conducted the National Talent Search Scholarship examination. The examination was held in 1981. The number of students who took the test at various stages are indicated in the table that follows.

<i>Class</i>	<i>No. of Students Appeared</i>
X	48,000
XI	7,000
XII	28,000
	Total
	83,000

As a result of interview, 548 students were awarded the scholarship. Of these, 48 scholarships were awarded to students belonging to Scheduled Castes/Scheduled Tribes. The details about the number of scholarships awarded are given below :

<i>Class</i>	<i>Number of Scholarships Awarded (General)</i>	<i>Reserved for SC/ST</i>
X	250	25
XI	100	10
XII	150	15
	Total	50

### **Studies on Scholarship Holders**

The National Talent Search Unit has been conducting a number of studies during the year. Among others, the following need particular mention.

**(i) *An Intensive Study of Accomplishment of National Science Talent Scholars***

The tools (Part I of the Questionnaire) have been printed. The responses received will be analysed for background variables of the talented scholars. Part II of the questionnaire will be mailed when Part I is received back. Meanwhile, studies on the accomplishments of the talented are being reviewed.

**(ii) *Indepth Study of the Government of India Merit Scholarship Holders Placed in Approved Residential Schools***

After obtaining basic data from 67 residential schools, questionnaires were developed to obtain detailed information on various aspects of the Scheme, from the scholars now studying in the residential schools, and from those who have dropped out from this Scheme, and from the parents of scholars, and from the principals of the institutions. 1500 questionnaires have been sent. Some institutions have sent back the questionnaires duly filled in by the scholars. The questionnaires to be filled in by parents are being sent to them. The tabulation of the data is also going on simultaneously.

**(iii) *A Study of the Socio-Economic Background of the National Talent Search Scholars***

Analyses have been made of the various background factors of those who were selected, called for interview, and rejected on the basis of the NTS examinations held at Classes X, XI and XII, respectively. The writing of the report based on these analyses will be taken up shortly.

## **Publications**

The monograph entitled "Studies on National Talent Search", was brought out by the Council. It presents some theoretical and research papers. The monograph is likely to help in understanding the weaknesses and strengths of talent search programme. It can be of use to those who are involved in taking policy decisions about identifying and encouraging exceptional talents.

### *Creativity Research International Prospective*

The volume brought out by the Council, presents an understanding of the processes of innovations in creativity and its application in different areas of human behaviour in different countries of the world. The contributors have documented various issues that have arisen in creativity research.

### **Research and Development in Talent Search**

The Report on the use of creativity tests under the "Research and Development in Talent Search Project" has been completed. As regards Part II of the Study, the data have been analysed. The report is under preparation.

### **Talent Search Examination**

During the financial year 1981-82, the NCERT conducted NTS examination at three different stages i.e., Class X, XI and XII all over India at 430 centres, and a total number of 83,000 candidates appeared in the said examination for all the three classes. Details regarding the number and value of each scholarship awarded are given below.

<i>S. No.</i>	<i>Class</i>	<i>No. of Scholarship</i>	<i>Reserved for SC ST</i>	<i>No. of Candidates Appeared</i>	<i>Rate of Scholarship</i>
1	2	3	4	5	6
1.	X	250	25	48,000	(a) Rs. 150 per month for 2 years+Rs. 200 per annum as book grant.  (b) Rs. 200 per month up to the second degree in Basic and Social Sciences and first degree in Engineering and Medicine+Rs. 300 per annum as book grant.

1	2	3	4	5	6
2.	XI	100	10	7,000	(a) Rs. 150 per month for one year + Rs. 300 per annum as book grant ; thereafter  (b) Rs. 200 per month up to the second degree in Basic and Social Sciences and first degree in Engineering and Medicine+ Rs. 300 per annum as book grant.
3.	XII	150	15	28,000	Rs. 200 per month up to the second degree in Basic and Social Sciences and first degree in Engineering and Medicine+ Rs. 300 per annum as book grant.
<b>Total</b>		<b>500</b>	<b>50</b>	<b>83,000</b>	

### **Scholars Placement Programmes**

It may also be stated that the Summer Schools and Summer Placement Programmes were organized by the Council for the under-graduate and post-graduate NTS Scholars at 26 different places in the country during May and June 1981; 264 scholars participated in these programmes.

# 16

## **International Assistance and International Relations**

**A**S an institution of national importance, the Council maintains contacts with the UNESCO and other international organizations working in the field of education. For its efforts at improving the quality of education at school stage, the Council has received

assistance from international agencies like the UNICEF, the UNDP and the UNFPA. The Council also acts as a major agency for implementing the provisions of the bilateral cultural exchange programmes that are signed by the Government of India with different countries, as far as school education is concerned. The Council also functions as the secretariat of the National Development Group for the Asian Centre for Educational Innovations and Development (APEID). The functions of the Secretariat include, among other things, the establishment of line of communication with the Directors of Education and the Directors of SCERTs/SIEs and other associated centres of the APEID, providing of information/documentation services, the development and evaluation of various programmes as sponsored under the APEID, and facilitating the implementation of innovative programmes assisted or sponsored by the APEID.

In a meeting of the National Development Group held on 19 March 1981, the criteria for identification and selection of other institutions involved in the APEID activities were laid down. These have been circulated to the State Governments to enable them to identify institutions which could be designated as associated centres of the APEID. The meeting also finalized comments on the UNESCO's next plan of action. These comments were finalized on the basis of the reactions received from various associated centres.

### **UNESCO/APEID**

The Council participates in UNESCO's activities through direct participation in UNESCO programmes; by participating in UNESCO activities through APEID (Asian Programmes for Educational Innovations and Development); and by undertaking studies in various educational fields. Direct participation includes sponsoring the Council's officers for participating in international conferences/seminars/workshops/symposia, etc., as well as receiving foreign nationals for training in various fields of education. During the year, the following officers of the Council participated in the UNESCO sponsored activities.

#### *Deputation of Council Officers*

Shri Sachidananda Ray, Lecturer in Technology, Regional College of Education, Mysore, was deputed for the training programme on 'Design and Development of Equipment for Science and Technology

**Education' under the UNESCO's APEID Attachment Programme held at Tokyo during 9-28 November 1981.**

**Shri K.C.S. Jain, Field Adviser, Chandigarh, and Shri S.B. Maheshwari, Reader in Commerce, RCE, Ajmer, were deputed to participate in the 'APEID Technical Working Group Meeting on Vocational and Technical Education with Focus on Business and Commerce Subjects', held at Bangkok from 26 October to 5 November 1981.**

**Shri N. B. Badrinarayan, Lecturer in Mathematics, RCE, Mysore, participated in the symposium on 'Soroban Education' held in Japan from 28 March 1982 for a period of seven days.**

**Smt. Geetha Thopal, Chief Accounts Officer, NCERT, visited as a member of the Government of India delegation, Philippines and Bangkok to study the 'UNICEF-assisted Projects in the Education Sector' in these countries from 9 to 17 May 1981.**

**Dr. (Smt.) Shakuntala Bhattacharya, Reader, Department of Education in Science and Mathematics, participated in the Sub-Regional workshop on 'Biology Education in Asia for Preparing Training Material' held at Bangkok during 3-12 August 1981.**

**Shri K. L. Luthra, Head, Library and Documentation Unit, attended 'UNESCO-attachment Programme in Population Education Documentation and Information Services,' at Bangkok from 2 to 27 November 1981.**

**Dr. S. N. Tripathy, Professor in Education, Regional College of Education, Bhopal, attended the regional seminar for 'Training of Young Educational Researchers', organized by NIER, Tokyo, from 22 October to 5 November 1981.**

**Dr. A. N. Maheshwari, Professor in Physics, Regional College of Education, Mysore, attended the regional workshop for 'Compilation of an Inventory of Appropriate Aids for Science Teaching' held at Tokyo from 11 November to 1 December 1981.**

**Prof. A. K. Jalaluddin of the Department of Education in Science and Mathematics of the Council attended the Study Group Meeting**



on 'Science Curriculum and Instructional Material Development, held at Bangkok from 10-18 November 1981.

Prof. H. S. Srivastava, Head, Planning, Coordination and Evaluation Unit of the Council, attended the Review and Planning Meeting of the UNESCO/APEID-NIER Regional Programmes held at Tokyo during 9-18 March 1982.

Shri H. L. Sharma, Lecturer, Non-formal Education Group of the Council attended the Study Group Meeting on 'Alternative Educational Delivery System for the Rural Poor with Focus on Science and Technology Education for Development', held at Quezon City, Philippines, from 19 to 28 January 1982.

Shri R. K. Gupta, Reader, and Shri Rameshwar Dayal, Research Associate, participated in the inter-country study visit in connection with APEID Joint Innovative Project on 'Meeting the Educational Needs of Young People without Schooling or with Incomplete Schooling' held at Bangladesh (Dacca) from 3-9 November 1981.

These two officers also attended Finalization Meeting of the APEID Joint Innovative Project on 'Meeting the Educational Needs of Young People without Schooling or with Incomplete Schooling' held at Bangkok (Thailand) during 9-15 December 1981.

Shri Harmesh Lal, Research Associate, Department of Teaching Aids, was deputed to Malaysia for the APEID Special Technical Co-operation Programme held at the Educational Media Service, Malaysia, in the field of 'Educational Technology' for a period of four weeks from 14 October 1981.

Prof. (Smt.) Adarsh Khanna, Head, PCDC, and Shri C. Guru, Assistant Coordinator, DESM, visited Japan during 16-19 October and the Republic of Korea during 21-23 October 1981 for inter-country study visit under the Joint Innovative Project on 'Integrating Subject Areas in Primary Education Curriculum.'

Prof. (Smt.) Adarsh Khanna, Head, PCDC, and Shri K. Ramachandaran, Lecturer, CAPE Group, participated in the Finalization

Meeting on Joint Innovative Project on 'Integrating Subject Areas in Primary Education Curriculum' held at Bangkok from 9 to 15 December 1981.

#### *Assistance from the UNESCO*

Under the participation programme of the UNESCO for 1981-82 the Council's project 'Monitoring and Evaluation of Educational Projects (Universalization of Elementary Education)' has been approved by the UNESCO.

A sum of US \$ 10,000 has been received by the NCERT as the UNESCO contribution.

#### *Foreign Visitors to the Council*

Mr. B. H. Kawonga, Principal Secretary, Department of Education, Government of Malawi, visited the NCERT on 8 April 1981 and discussed the various programmes of the Council, particularly the preparation of textbooks.

Mr. Shin'i Chire Horie of Japan, Expert in Vocational and Technical Education of the Asian Centre of Educational Innovations for Development (ACEID), Bangkok, visited the Council during 24-27 June 1981.

A four-member team from Afghanistan visited the Council from 23 November to 26 December 1981 to study the audio-visual education programme under the sponsorship of the UNICEF, Afghanistan.

A group of six UNESCO fellowship holders from Indonesia visited the Council from 6 to 11 December 1981. The purpose of their visit to India was to make a comparative study of structures, functions and working relationships among various centres for educational planning, research, and development.

Mr. Richard Neill, UNESCO Consultant in Educational Equipment Design, visited the NCERT on 11 and 12 May 1981.

A group of 14 Norwegian nationals visited the Council on 28 June 1981 to study the Indian school systems, and another group of five visited the Regional College of Education, Bhubaneswar, from 28 to 30 June 1981.

Shri R.C. Vohra, Programme Specialist, Division of Science Technical and Vocational Education, UNESCO, Paris, visited the Council on 16 June 1981.

Mr. Tharatchai Chanakanon from the Institute for the Promotion of Teaching Science and Technology (IPST), underwent training in the Workshop Department of the NCERT from 2 to 22 November 1981 under a UNESCO programme.

Three UNESCO fellows, viz., Messrs. Muhammad Bin Haji Muhammad Taib, Abdullah Sani Bin Haji Abbul Ghani, and Ibrahim Bin Othman from Malaysia visited the Council from 29 November to 5 December 1981 for a study tour on Resource and Teachers' Centres in India under the UNESCO programme.

Mr. Mohammad Latif, Under Secretary, Ministry of Education and Mr. Waheed, Deputy Director, Education Development Centre, Government of Maldives, visited the NCERT on 17 August 1981 and discussed issues of mutual interest.

UNESCO fellows, Messrs. Nabibad Aziz, Mohamad Massum Yousufzai and Abdul Ghayoor, all from Afghanistan, visited the NCERT for training in the field of science teaching for a period of three months from December 1981. During the period of their study they attended an orientation training programme on environmental studies for key persons organized by the Council for States/U.Ts. They also visited Regional Colleges of Education, Ajmer and Mysore.

Shri S. Natesan, Deputy Director (Education and Training), Ministry of Agricultural Development and Research, Government of Sri Lanka visited the Council on 19 August 1981.

Shri Fazlur Rahman Khan, District Inspector of Schools from Bangladesh, visited the Council on 6 October 1981. He acquainted

himself with the various programmes of the Council, particularly those relating to socially useful productive work, curriculum development and preparation of teaching aids.

Mr. Peter Van Rijn, Expert in Educational Documentation and an associate of the UNESCO Regional Office, Bangkok, visited the Council on 15 August 1981 with the purpose to acquaint himself with the library system and its services.

Two UNESCO fellows, one each from Bangladesh and Nepal, visited the Council during 23-30 November 1981, to exchange experiences and make an on-the-spot study of innovative programmes in the area of educational radio and television.

The Council organized a study programme for Mr. Mohammad Abdul Tabbar of Bangladesh, Bureau of Educational Information and Statistics under the APEID Special Technical Cooperation Programme from 15 November to 19 December 1981.

Dr. K. Hazaree Singh, Director, Mahatma Gandhi Institute, Moka (Mauritius), visited the Council on 2 February 1981 during his visit to India for a period of four weeks. He acquainted himself with the production of textbooks and other educational publications in India.

The Council organized a study programme for Mr. Badarudin bin L. Yusef of the Examination Syndicate, Ministry of Education, Malaysia, from 15 September to 5 October 1981, under the APEID Special Technical Cooperation Programme.

Prof. E. Ayotunde Yoloye of the Institute of Education, University of Ibadan, Nigeria, visited the Council on 25 August 1981.

#### *NCERT Programmes as Associated Centre for the APEID*

The NCERT as an Associated Centre of the APEID, hosted the following programmes :

A training course for Upgrading of Basic Sciences in Physics and Chemistry related to technical and vocational education, was organized by the Regional College of Education, Mysore

A finalization meeting on In-service Primary Teacher Education was organized in New Delhi from 3 to 12 December 1981. Participants from Bangladesh, India, Indonesia, Republic of Korea, Malaysia, Nepal, Papua New Guinea, Philippines and Thailand, participated in the meeting.

A regional seminar on the Introduction of Projective Work into Teacher Education was organized in New Delhi during 5-14 April 1982. Participants from Afghanistan, Australia, Bangladesh, Burma, China, India, Indonesia, Republic of Korea, Maldives, Nepal, Pakistan, Sri Lanka, Thailand and Vietnam attended the seminar.

A national workshop under the Joint Innovative Project on In-service Primary Teacher Education was organized in New Delhi on 9 and 10 November 1981.

A national workshop for the development of Intergrated Curriculum for Classes I and II under the Joint Innovative Project on Integrating Subject Areas in Primary Education Curriculum, was organized during September to October 1981.

### *NCERT-UNESCO Projects*

During the year the Council signed contracts with UNESCO for undertaking the following activities :

Pilot Project on 'Technology in Central Education'.

Case Study on the Drop-out Problem in India.

Preparation of an Experimental Module for In-service Training of Teachers and Supervisors in Environmental Education for Primary Schools.

Environmental Education Pilot Project on Problems of Urban Marginal Areas.

Graphic Communication Course Adaptation of Material.

## **Bilateral Cultural Exchange Programmes**

The Council is one of the important implementing agencies of the bilateral cultural exchange programmes. Acting as an implementing agency, the NCERT participates in a two-way flow of ideas with foreign countries by sending its delegations to study innovative educational developments. The Council has also been exchanging educational material including textbooks, supplementary reading materials, research monographs as well as films and film-strips with other countries under the provisions of the cultural exchange agreements signed by the Government of India.

The details of the Council's officers who were deputed abroad and the foreign visitors who visited India under the cultural exchange programmes are given below :

### *Visitors to the Council*

A three-member Soviet delegation consisting of Mr. Balahmetov Kachahmet Balahmetovich, Minister of Public Education of Kazakh, SSR, Mrs. Kamalova Lira Sharipovna, Director of Buribaevsky Secondary School, Bashkir, ASSR, and Mr. Oreshin Andrey Geigerievich, Chief Methodist, USSR Ministry of Public Education, visited the NCERT during 11-23 September 1981 to exchange experiences in the field of pedagogical training and personnel.

A four-member Iraqi delegation consisting of Mr. Thamer Daweed Madir, Permanent Under Secretary, Mr. Salim Daweed Al Jasser, Director General, Mr. Khairallah Salman Joboor, Official, Mr. Mundher Abdul Jalil, Abdul Jabbar, Official, visited the NCERT from 11 February 1982 for a period of two weeks to observe and exchange experiences with regard to school education including vocational education.

A four-member Vietnamese delegation, consisting of Mr. Luong Ngoc Toan, Vice-Minister of Education, Mr. Hoang Duc Nhuan, Head of General Education Department, Mr. Le Van Hap, Deputy Head of Secondary Education Department, and Mr. Hoang Van Sit, Teacher of English, visited the NCERT from 13 February 1982 for a period of two weeks to exchange experiences in the field of general school education particularly in the areas of curriculum development, teacher education, in-service education, correspondence education, vocational

education, non-formal education and on examination techniques at school level.

Mr. Liliانا Borisova Panova, an expert from Bulgaria, visited the NCERT from 27 March 1982, for a period of one month to exchange experiences in the field of pre-school education. She held discussions with the faculty of Child Study Unit of the NCERT. She also visited some selected institutions in Madras, Hyderabad and Bombay.

### *Deputations*

Dr. S.N. Datta, Reader, Regional College of Education, Mysore, was deputed to Poland to study vocational education at school stage during 13-30 April 1981.

### **Joint Indo-Soviet Textbook Board**

Under the Joint Indo-Soviet Textbook Board, the Council received 18 Soviet books during 1981-82 in the field of professionalization at higher secondary stage of education for use as extra-curricular reading. These books were reviewed and the Council recommended 11 books it regarded to be useful as supplementary reading material. The Council also suggested the name of Dr. A.K. Jalaludin, Professor in Physics, Km. S.K. Ram, Reader in English, and Dr. A.K. Dhote, Lecturer in Agriculture in the Council to be designated as co-authors for joint-preparation with Soviet authors of the Soviet textbooks of Russian Language.

### **Celebration of the U.N. Day**

The Council celebrated the U.N. Day on 24 October 1981. Mr. Jerrold Berke, Deputy Resident, Representative of the UNDP, New Delhi, was the Chief Guest. He spoke to the faculty of the NCERT. An exhibition of the available literature on United Nations was also organized the same day.

### **Celebration of the Human Rights Day**

The Human Rights Day was also celebrated in the NCERT on 10 December 1981. Dr. (Mrs.) Martha Vannucei, Director, UNESCO, New Delhi, was the Chief Guest. She along with other officers of the Coun-

cil addressed a faculty meeting. A puppet show entitled 'Batwara' was also organized on this occasion.

### **Other Developments**

Dr. T.N. Dhar, Joint Director, NCERT, attended the workshop on "Satellite Communication in a National Telecommunication and Information" in the USA from 11 October to 7 November 1981.

A group of 15 American Supervisors and Curriculum Directors visited the Council on 13 July 1981.

Prof. Isaac Ojok, Minister of Education, Uganda, visited the Council on 24 September 1981 and discussed various programmes of the Council. He showed keen interest in teachers' training, curriculum development, particularly in rural areas and in non-formal education.

Mr. R.P. Throssel, Director, Commonwealth Education, visited the Council on 22 October 1981.

The Council organized the visit of Dr. Rhodes Boyson, Parliamentary Under Secretary of State in the Department of Education and Science, U.K., who accompanied by his wife and his Private Secretary, Mr. Peter Wilson, visited India during 2-16 December 1981 at the invitation of the Minister of State for Education and Culture, Government of India.

Shri I. Purang, Education Secretary, Government of Mauritius, visited the Council on 12 January 1982 under the Commonwealth Education Cooperation Plan of the Government of India and acquainted himself with the Council's work particularly in the area of textbooks, research publications and educational technology.

Dr. Mohammed Monriuzzaman, Prof., Department of Bengali, University of Dacca, Bangladesh, visited the Council on 30 September 1981, under the Commonwealth Education Cooperation Plan of the Government of India.



**A two-member GDR delegation consisting of Dr. Buchwalder, Sr. Staff Member of the Department of Education and Training in the GDR Ministry of Higher and Technical Education, and Dr. E. Faber, visited the Council on 28 October 1981.**

**H.E. Prof. Alexander Fol, Minister of National Education of the People's Republic of Bulgaria, visited the Council on 19 February 1982, and discussed various programmes of mutual interest.**

# 17

## Publications

**A**N important function of the NCERT is to publish school textbooks, instructional materials, students' workbooks, teachers' guides/manuals, research studies/monographs, etc. The Council produces, distributes and supplies a wide range of publications in

the field of education, including supplementary readers, reports of educational surveys, handbooks, brochures, journals, etc.

During the year, the following publications were brought out :

<i>Category of Publication</i>	<i>Number of Titles</i>
First edition textbooks/workbooks	4
Reprints of textbooks/workbooks/prescribed supplementary readers	211
Textbooks/workbooks for other Government/ Agencies	7
Research monographs/reports and other publications	33
Periodicals (issues)	27
Total	282

The details are given in the Annexure to this chapter.

### **Distribution**

The NCERT publications were distributed and sold through the Publication Division of the Ministry of Information and Broadcasting, New Delhi, who are the Council's National Distributors in the Northern, Eastern and Western Zones and sell books through their sales emporia at New Delhi, Calcutta and Bombay. The Southern Zone was served by the NCERT's Publication Department directly, which also sold textbooks to schools and other educational institutions against direct orders received in response to country-wide advertisement. All the Council's journals were also distributed and sold by the Council.

During the year, a total of 392 direct orders were received—67 from Kendriya Vidyalayas, 13 from Sainik Schools, 19 from Central Schools for Tibetans, 283 from other schools, and 10 from Districts of Arunachal Pradesh. In January 1982, textbooks for Classes I-VIII were also

supplied directly to the Director of Education, Sikkim, for the session 1982-83.

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

During the year, the NCERT exhibited its publications at the following Fairs/Exhibitions :

1. National Science Exhibition, Bangalore
2. The Fifth World Book Fair, New Delhi.

The Council also participated in the following International Book Fairs/Exhibitions by sending selected NCERT publications through the National Book Trust :

1. Bologna Children's Book Fair
2. The Third Moscow International Book Fair
3. The Thirty-third Frankfurt Book Fair
4. The Thirteenth Singapore Festival of Books and Book Fair
5. National Book Fair, Ghana
6. International Book Fair, Cairo
7. A Special Exhibition of Indian Books at Nairobi, Kenya.

### **Sale**

During the year, the sale proceeds of NCERT publications amounted to Rs. 1,40,33,926.46. In addition, publications worth \$ 912.35 and £ 4.40 were also sold to various parties in other countries. These amounts do not include the sale proceeds of NCERT publications made by the Sales Emporia of the Publication Division, Ministry of Information and Broadcasting for the period 1 October 1981 to 31 March 1982.

## Publications

('S.S.' indicates 'special series' and 'R.P.' indicates 'reprints')

<i>S. No.</i>	<i>Title</i>	<i>Month of Publication</i>	<i>Year of Publication</i>
1	2	3	4
<b>CLASS I</b>			
<i>Textbook</i>			
1.	Bal Bharati Bhag I (R.P.)	December	1981
<i>Workbooks</i>			
2.	Workbook to Let's Learn English Book I (R.P.)	April	1981
3.	Abhyas Pustika Bal Bharati Bhag I (R.P.)	May	1981
4.	Abhyas Pustika Bal Bharati Bhag I (R.P.)	December	1981
<b>CLASS II</b>			
<i>Textbooks</i>			
5.	Let's Learn English Book II (S.S.) (R.P.)	May	1981
6.	Mathematics for Primary Schools II (R.P.)	December	1981
7.	Mathematics for Primary Schools II (R.P.)	February	1982
<i>Workbooks</i>			
8.	Workbook to Let's Learn English Book II (R.P.)	December	1981
9.	Abhyas Pustika Bal Bharati Bhag-II (R.P.)	March	1982
<b>CLASS III</b>			
<i>Textbooks</i>			
10.	Bal Bharati Bhag III (R.P.)	April	1981
11.	Let's Learn English Book III (R.P.)	March	1982

1	2	3	4
12.	Mathematics for Primary Schools Book III (R.P.)	April	1981
13.	Mathematics for Primary Schools Book III (R.P.)	February	1982
14.	Environmental Studies Part I (R.P.)	May	1981
15.	Environmental Studies Part I (R.P.)	March	1982
16.	Paryavaran Adhyayan Bhag I (R.P.)	June	1981
17.	Paryavaran Adhyayan Bhag I (R.P.)	January	1982
18.	Environmental Studies Part II (R.P.)	December	1981
19.	Paryavaran Adhyayan Bhag II (R.P.)	May	1981

*Workbooks*

20.	Abhyas Pustika for Bal Bharati Bhag III (R. P.)	December	1981
21.	Abhyas Pustika for Bal Bharati Bhag III (R. P.)	March	1982

**CLASS IV**

*Textbooks*

22.	Bal Bharati Bhag IV (R.P.)	April	1981
23.	Bal Bharati Bhag IV (R.P.)	January	1982
24.	Insight into Mathematics (R.P.)	May	1981
25.	Environmental Studies Part I (R.P.)	June	1981
26.	Paryavaran Adhyayan Bhag I (R.P.)	May	1981
27.	Paryavaran Adhyayan Bhag I (R.P.)	December	1981
28.	Paryavaran Adhyayan Bhag II (R.P.)	April	1981

*Workbooks*

29.	Abhyas Pustika for Bal Bharati Bhag IV (R.P.)	December	1981
30.	Workbook to English Reader Book I (S.S.) (R.P.)	January	1981

1	2	3	4
<i>Prescribed Supplementary Reader</i>			
31.	Read for Pleasure Book I (R.P.)	December	1981
<b>CLASS V</b>			
<i>Textbooks</i>			
32.	Swasti Bhag I (R.P.)	April	1981
33.	Bal Bharati Bhag V (R.P.)	June	1981
34.	Swasti Bhag I (R. P.)	January	1982
35.	English Reader Book II (S. S.) (R.P.)	May	1981
36.	Insight into Mathematics Book V (R.P.)	May	1981
37.	Insight into Mathematics Book V (R.P.)	July	1981
38.	India and the World (R. P.)	May	1981
39.	Bharat aur Sansar (R. P.)	May	1981
40.	Paryavaran se Vigyan Seekhna (R.P.)	June	1981
<i>Workbooks</i>			
41.	Workbook to English Reader Book II (S. S.) (R. P.)	December	1981
42.	Abhyas Pustika Bal Bharati Bhag V (R.P.)	July	1981
<i>Prescribed Supplementary Readers</i>			
43.	Read for Pleasure Book II (R.P.)	April	1981
44.	Read for Pleasure Book II (R.P.)	January	1982
<b>CLASS VI</b>			
<i>Textbooks</i>			
45.	Bharati Bhag I (R.P.)	April	1981
46.	Bharati Bhag I (R.P.)	December	1981
47.	Swasti Bhag II (R.P.)	April	1981
48.	English Reader Book III (S.S.) (R.P.)	January	1982

1	2	3	4
49.	Mathematics Book I (R.P.)	April	1981
50.	Mathematics Book I (R.P.)	December	1981
51.	Ganit Pustak I (R.P.)	May	1981
52.	Lands and People Pt. I (R.P.)	February	1982
53.	Lands and People Pt. I (R.P.)	May	1981
54.	Desh aur Unke Niwasi Bhag I (R.P.)	May	1981
55.	History and Civics Pt. I (R.P.)	May	1981
56.	History and Civics Pt. I (R.P.)	December	1981
57.	Itihas aur Nagrik Shastra Bhag I	January	1981
58.	Learning Science Pt. I (R.P.)	January	1982
59.	Aao Vigyan Seekhen Bhag I (R.P.)	December	1981

*Workbooks*

60.	Workbook to English Reader Book III (S. S.) (R. P.)	December	1981
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*Prescribed Supplementary Readers*

61.	Sankshipt Ramayan (R.P.)	April	1981
62.	Sankshipt Ramayan (R.P.)	June	1981
63.	Sankshipt Ramayan (R.P.)	December	1981
64.	Read for Pleasure Book III (R.P.)	November	1981

*CLASS VII*

*Textbooks*

65.	Bharati Bhag II (R.P.)	May	1981
66.	Bharati Bhag II (R.P.)	January	1982
67.	Sankshipt Mahabharat (R.P.)	April	1981
68.	English Reader Book IV (S.S.) (R.P.)	December	1981
69.	Ganit Pustak II (Bhag I) (R.P.)	June	1981
70.	Mathematics Book II Pt. II (R.P.)	January	1982
71.	History and Civics Pt. II (R.P.)	May	1981



1	2	3	4
72.	History and Civics Pt. II (R.P.)	January	1982
73.	Itihas Aur Nagrik Shastra Bhag II (R.P.)	December	1981
74.	Lands and People Pt. II (R.P.)	December	1981
75.	Desh Aur Unke Niwasi Bhag II (R.P.)	December	1981
76.	Learning Science Pt. II (R.P.)	April	1981
77.	Learning Science Pt. II (R.P.)	January	1982
78.	Aao Vigyan Seekhen Bhag I' (R.P.)	April	1981
79.	Mathematics Book II Part I (R.P.)	April	1981

*Prescribed Supplementary Readers*

80.	Read for Pleasure Book IV (R.P.)	June	1981
81.	Read for Pleasure Book IV (R.P.)	January	1982
82.	Naya Jeevan (R.P.)	July	1981

*CLASS VIII*

*Textbooks*

83.	Bharati Bhag III (R.P.)	June	1981
84.	Swasti Bhag IV (R.P.)	January	1982
85.	English Reader Book V (S.S.) (R.P.)	March	1982
86.	Mathematics Book III Part II (R.P.)	May	1981
87.	Mathematics Book III Part II (R.P.)	January	1982
88.	Ganit Pustak III Bhag II (R.P.)	April	1981
89.	History and Civics Part III (R.P.)	December	1981
90.	Itihas Aur Nagrik Shastra Bhag III (R.P.)	May	1981
91.	Itihas Aur Nagrik Shastra Bhag III (R.P.)	December	1981
92.	Lands and People Part III (R.P.)	May	1981
93.	Lands and People Part III (R.P.)	November	1981
94.	Desh Aur Unke Niwas Bhag III	June	1981
95.	Desh Aur Unke Niwasi Bhag III (R.P.)	January	1982
96.	Learning Science Part III (R.P.)	June	1981
97.	Aao Vigyan Seekhen Bhag III (R.P.)	May	1981

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98.	Mathematics Book III Part I (R.P.)	April	1981
99.	Mathematics Book III Part I (R.P.)	January	1982
<i>Prescribed Supplementary Readers</i>			
100.	Read for Pleasure Book V	May	1981
101.	Trividha (R.P.)	May	1981
102.	Jeevan Aur Vigyan (R.P.)	June	1981
<b>CLASS IX</b>			
<i>Textbooks</i>			
103.	The Story of Civilization Vol. I (R.P.)	May	1981
104.	Sabhyata Ki Kahani Bhag I (R.P.)	July	1981
105.	Man and Environment (R.P.)	February	1982
106.	Manushya Aur Vatavaran (R.P.)	May	1981
107.	Manushya Aur Vatavaran (R.P.)	March	1982
108.	Steps to English-4 English Reader (First Edition)	June	1981
109.	Steps to English-4 English Reader (R.P.)	February	1982
<i>Workbook</i>			
110.	Steps to English-4 Workbook to English Reader (First Edition)	June	1981
<i>Prescribed Supplementary Reader</i>			
111.	Steps to English-4 Supplementary Reader (First Edition)	June	1981
<i>Textbooks</i>			
112.	English Reader Book VI (S.S.) (R.P.)	June	1981
113.	English Reader Book VI (S.S.) (R.P.)	February	1982

1	2	3	4
114.	Vigyan Bhag I (R.P.)	June	1981
115.	Mathematics Part I (R.P.)	June	1981

### CLASSES IX-X

#### Textbooks

116.	We and Our Government (R.P.)	May	1981
117.	Hum Aur Hamara Shashan (R.P.)	May	1981
118.	We and Our Government (R.P.)	March	1982

### CLASS X

#### Textbooks

119.	Mathematics Part II (R.P.)	June	1981
120.	Ganit Bhag II (R.P.)	April	1981
121.	Ganit Bhag II (R.P.)	March	1982
122.	Vigyan Bhag II (R.P.)	June	1981
123.	The Story of Civilization Volume II (R.P.)	May	1981
124.	The Story of Civilization Volume II (R.P.)	February	1982
125.	Sabhyata Ki Kahani Bhag II (R.P.)	May	1981
126.	India on the Move (R.P.)	July	1981
127.	Bharat Vikas Ki Oar (R.P.)	July	1981
128.	Sabhyata Ki Kahani Bhag II (R.P.)	March	1982

### CLASS XI

#### Textbooks

129.	English Reader Book I (R.P.)	April	1981
130.	English Supplementary Reader Part I (R.P.)	May	1981
131.	English Supplementary Reader Part I (R.P.)	March	1982
132.	Nibandh Bharati (R.P.)	February	1982

1	2	3	4
133.	Katha Bharati (R.P.)	March	1982
134.	Vividha (R.P.)	March	1982
135.	Hindi Pratinidhi Kahaniyan (R.P.)	May	1981
136.	Hindi Pratinidhi Ekanki (R.P.)	May	1981
137.	Hindi Pratinidhi Ekanki (R.P.)	March	1982
138.	Mathematics Book I (R.P.)	May	1981
139.	Mathematics Book II (R.P.)	May	1981
140.	Bhautik Vigyan Bhag I (R.P.)	September	1981
141.	Chemistry Part I (R.P.)	May	1981
142.	Biology Part I (R.P.)	June	1981
143.	Ancient India (R.P.)	July	1981
144.	Foundations of Political Science (R.P.)	June	1981
145.	Foundations of Political Science (R.P.)	September	1981
146.	Rajnitik Vigyan Ke Aadhar (R.P.)	June	1981
147.	Political System (R.P.)	May	1981
148.	Physical Basis of Geograpy (R.P.)	April	1981
149.	Bhautik Bhoogol Ke Aadhar (R.P.)	July	1981
150.	Geography Workbook (R.P.)	May	1981
151.	General Geography of India Part I (R.P.)	May	1981
152.	General Geography of India Part I (R.P.)	March	1982
153.	Bharat Ka Samanya Bhoogol (R.P.)	June	1981
154.	Elementary Statistics (R.P.)	April	1981
155.	Elementary Statistics (R.P.)	March	1982
156.	Medieval India Part I (R.P.)	May	1981
157.	Field Work and Laboratory Techniques in Geography (R.P.)	May	1981
158.	Evolution of Indian Economy (R.P.)	May	1981

### *CLASSES XI-XII*

#### *Textbooks*

159.	Parijat (R.P.)	June	1981
160.	Chayanika (R.P.)	April	1981

1	2	3	4
161.	English Reader II (R.P.)	May	1981
162.	Physics for Classes XI-XII (R.P.)	June	1981

### *CLASS XII*

#### *Textbooks*

163.	Hindi Sahitya Ka Parichyatmak Itihas (R.P.)	June	1981
164.	Sahitya Shastra Parichaya (R.P.)	May	1981
165.	Sahitya Shastra Parichaya (R.P.)	March	1982
166.	A Course in Written English (R.P.)	June	1981
167.	A Course in Written English (R.P.)	March	1982
168.	Mathematics Book III (R.P.)	April	1981
169.	English Supplementary Reader Part II (Core) (R.P.)	June	1981
170.	Ganit Bhag III (R.P.)	May	1981
171.	Rasayan Vigyan Bhag II Khand I (R.P.)	September	1981
172.	Chemistry Part II (R.P.)	June	1981
173.	Biology Part II Vol. I (R.P.)	July	1981
174.	Biology Part II Vol. I (R.P.)	March	1982
175.	Biology Part II Vol. II (R.P.)	July	1981
176.	Biology Part II Vol. II (R.P.)	March	1982
177.	Madhya Kalin Bharat (R.P.)	June	1981
178.	Medieval India Part II (R.P.)	April	1981
179.	Medieval India Part II (R.P.)	March	1982
180.	Modern India (R.P.)	June	1981
181.	Indian Constitution and the Govt. (R.P.)	June	1981
182.	Indian Democracy at Work (R.P.)	June	1981
183.	Indian Democracy at Work (R.P.)	September	1981
184.	National Accounting (R.P.)	May	1981
185.	National Accounting (R.P.)	March	1982
186.	Rashtriya Lekha Padhiti (R.P.)	May	1981

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187.	Rashtriya Lekha Padhiti (R.P.)	February	1982
188.	An Introduction to Economic Theory (R.P.)	June	1981
189.	An Introduction to Economy Theory (R.P.)	February	1982
190.	Arthik Sidhant Ka Parichayic (R.P.)	May	1981
191.	Human and Economic Geography (R.P.)	June	1981
192.	Human and Economic Geography (R.P.)	March	1982
193.	Manav Evam Arthik Bhoogol (R.P.)	May	1981
194.	Geography of India Part II (R.P.)	June	1981
195.	Mathematics Book III (R.P.)	March	1982
196.	Mathematics Book IV (R.P.)	June	1981
197.	Mathematics Book IV (R.P.)	February	1982
198.	Mathematics Book V (R.P.)	July	1981
199.	Child Psychology (First Edition)	July	1981
200.	Bhartiya Samvidhan Aur Shashan (R.P.)	May	1981

*Urdu Textbooks*

**CLASS IV**

201.	Mahaul Ke Zariye Taleem Pt. II (R.P.)	September	1981
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**CLASS V**

202.	Mahaul Ke Zariye Taleem Pt. II (R.P.)	June	1981
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**CLASS VIII**

203.	Tareekh Aur Ilm-e-Shahriat (R.P.)	August	1981
204.	Science Seekhna (R.P.)	October	1981
205.	Hisab Book III Part I (R.P.)	June	1981
206.	Hisab Book III Part II (R.P.)	June	1981

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**CLASSES IX-X**

207.	Science Part I (R.P.)	October	1981
208.	Tahzeeb Ki Kahani Vol. I (R.P.)	December	1981
209.	Tabiyat (R.P.)	August	1981

**CLASSES XI-XII**

210.	Riyazee Book II (R.P.)	June	1981
211.	Siyasat Ke Buniyadi Osul (R.P.)	July	1981
212.	Siyasi Nizam (First Edition)	August	1981
213.	Hindustani Jamhooriyat Ka Amali Roop (R.P.)	August	1981
214.	Hindustani Aeen Aur Hukumat (R.P.)	August	1981
215.	Hindustani Aeen Aur Hukumat (R.P.)	September	1981

**Teacher's Guide**

216.	Teacher's Guide for Environmental Studies Part II for Class III	April	1981
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**Supplementary Readers**

217.	Prem Chand	September	1981
218.	Prem Chand (Hindi)	October	1981
219.	Prem Chand (Urdu)	October	1981

**TEXTBOOKS FOR OTHER GOVERNMENT/AGENCIES**

**Jammu & Kashmir Board**

220.	Hisab Book III Part II for Class VIII (Urdu)	June	1981
221.	Science Seekhna Part III for Class VIII (Urdu)	September	1981
222.	Mahol Ke Zariye Taleem, Part II for Class V (Urdu)	July	1981
223.	Bharati Bhag I for Class VI (Hindi)	April	1981

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***Arunachal Pradesh***

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|------|---|-----------|------|
| 224. | Arun Bharati Bhag II                              | April     | 1981 |
| 225. | Abhyas Pustika to Arun Bharati Bhag I for Class I | August    | 1981 |
| 226. | Arun Bharati Bhag I Class I                       | September | 1981 |

**RESEARCH MONOGRAPHS AND OTHER PUBLICATIONS**

- |      |  |           |      |
|------|--|-----------|------|
| 227. | Educational Research and Innovations   | May       | 1981 |
| 228. | Creativity Research-International Perspective  | May       | 1981 |
| 229. | Experimental Course in Chemistry for Higher Secondary Stage                                    | May       | 1981 |
| 230. | NCERT Audit Report 1979-80   | July      | 1981 |
| 231. | Indian Urban Families : Child Rearing  | August    | 1981 |
| 232. | Stagnation and Dropout at Primary Stage—A Sample Survey  | August    | 1981 |
| 233. | Vocationalization of Post-Secondary Education—A Critical Study of Implementation in the States | August    | 1981 |
| 234. | Third All-India Educational Survey—Institutions for Physically Handicapped Children            | August    | 1981 |
| 235. | Selected Reading Materials in English  | August    | 1981 |
| 236. | Third All-India Educational Survey—Hostel Facilities for Scheduled Tribes                      | August    | 1981 |
| 237. | Third All-India Educational Survey—Pre-Primary Teacher Education                               | August    | 1981 |
| 238. | National Integration   | September | 1981 |
| 239. | Third All-India Educational Survey—Pre-Primary Schools (Urdu)                                  | September | 1981 |
| 240. | Socially Useful Productive Work—Source Book Volume III   | October   | 1981 |



1	2	3	4
241.	National Science Exhibition for Children 1981	November	1981
242.	Structure and Working Science Models 1981	November	1981
243.	NCERT Annual Report 1980-81	November	1981
244.	NCERT Varshik Report 1980-81	November	1981
245.	Environmental Education at the School Level	December	1981
246.	Environmental Education and NCERT	January	1982
247.	Guidelines for Physics Projects	January	1982
248.	Some Special Features of Schools	February	1982
249.	Population Education	February	1982
250.	Higher Secondary Education and its Vocationalization	February	1982
251.	Socially Useful Productive Work—Source Book Volume I	January	1982
252.	Readings in Population Education	February	1982
253.	Selected Reading Materials in English	March	1982
254.	Training Manual	March	1982
255.	Investigation on Teacher Education in India	March	1982

## Journals

Journals occupy a pride of place in the NCERT's publishing activities. They cater to a wide range of readers, from primary school teachers to research workers. *The Primary Teacher* (English) and *Primary Shikshak* (Hindi) transmit to practising teachers and administrators authentic information about the educational policies being decided and pursued at the Central level. They also inform them about the innovative ideas and practices in the area of elementary school education. They aim at giving meaningful and relevant materials for direct use in the classroom. *Indian Educational Review* provides a medium for dissemination of the findings of educational research and exchange of experience among

research workers, scholars, teachers and others working in the field of educational research. *The Journal of Indian Education* provides a forum for teachers, teacher-educators and research workers to encourage original and critical thinking in education through discussion of current educational views. It is a bi-monthly publication. *School Science* is a quarterly journal of science education which serves as an open forum for the discussion of various aspects of science education, its problems, prospects and the individual experiences of teachers and students.

During the year the following issues of the various journals were brought out :

- |                                       |   |
|---------------------------------------|---|
| 1. <i>The Primary Teacher</i>         | January 1981, April 1981, July 1981<br>October 1981, and January 1982   |
| 2. <i>Primary Shikshak</i>            | January 1981, April 1981, July 1981,<br>and October 1981  |
| 4. <i>School Science</i>              | December 1980, March 1981, June 1981<br>September 1981, and December 1981   |
| 3. <i>Journal of Indian Education</i> | January 1981, March 1981, May 1981<br>July 1981, September 1981,<br>November 1981, January 1982, and<br>March 1982. |
| 5. <i>Indian Educational Review</i>   | January 1981, April 1981, July 1981<br>October 1981, and January 1982.  |

### **Copyright Permission to State Governments and other Agencies**

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

**Andhra Pradesh**

M. Venkatarangia Foundation  
10,2.96 Marradpulli  
Secunderabad 500026

Permission to use material from the following NCERT textbooks in their "Book of Knowledge for Children" :

1. *The Story of Civilization Vols. I & II*
2. *Ancient India by Romila Thapar*
3. *Modern India by Bipan Chandra*

**Bihar**

Bihar State Textbook  
Publishing Corporation  
White House, Patna

Permission to publish :

1. *Bal Bharati Bhag I*
2. *Bal Bharati Bhag II*

**Goa, Daman & Diu**

Director  
State Institute of Education  
Goa, Daman & Diu

Permission to translate into their regional language and publish for use in Goa, Daman & Diu, the NCERT book entitled *Reforming Examinations—Some Emerging Concepts*.

**Jammu and Kashmir**

Secretary  
State Board of School Education  
Rehari Colony  
Jammu

Permission to publish another edition of the following 13 textbooks :

1. *Modern India* (Urdu)
2. *Africa and Asia* (Urdu)
3. *Australia and America* (Urdu)
4. *Europe and India* (Urdu)
5. *Medieval India* (Hindi)
6. *Ancient India* (Hindi)
7. *Modern India* (Hindi)
8. *Africa and Asia* (Hindi)
9. *Europe and India* (Hindi)
10. *Australia and America* (Hindi)
11. *English Reader I (Gen. Series)*
12. *Science is Doing for Class V*  
(Hindi)
13. *Science is Doing for Class V*  
(Urdu)

***Maharashtra***

Chairman  
Maharashtra Board of Secondary &  
Higher Secondary Education  
Pune 411010

Permission to publish the *Workbook on Book-keeping for Class XI*

***Punjab***

Director  
Academic Planning Punjab School  
Education Board  
Chandigarh

Permission to publish some report extracts from *The School and the Nation*

Director  
Punjab Planning and Development  
Department  
Punjabi University  
Patiala

Permission to bring out a Punjabi Language edition of the NCERT textbook entitled *Evolution of Indian Economy* by K.S. Gill.

***Orissa***

Secretary  
Board of Secondary Education  
Orissa  
Cuttack 753001

Permission to reproduce extracts from *Socially Useful Productive Work Curriculum* and *Socially Useful Productive Work—Sample Curriculum Unit*

# 18

## **Administration, Finance and Welfare Activities**

**T**HE NCERT Secretariat continued to perform its function of “house-keeping” in accordance with the provision of the rules, regulations and procedures of the Council. It provided the necessary wherewithal to the various constituents of the Council for their effective and

efficient functioning.

The NCERT, on completion of two decades of its functioning, celebrated the *Foundation Month* from 1 to 30 September 1981. An exhibition was arranged in which selected textbooks, supplementary readers, teaching aids, and science kits, brought out/produced by the Council, were displayed. The exhibition was opened by Council's President, Smt. Sheila Kaul, Minister of State for Education. She planted a sapling of *cassia fistula* in front of the New Library Building. Film shows were arranged for the staff.

Professor S.V.C. Aiya, former Director of the Council, delivered the Foundation Day Lecture on 4 September 1981, on the theme of 'National Integration'. Dr. Prem Kripal, formerly Education Secretary, delivered the valedictory Lecture on 30 September 1981, on the theme of "Values in Education."

The Council's Secretariat continued to provide facilities for sports and games, and encouragement for cultural activities. An Inter-Regional-Colleges of Education and NIE *Volley Ball Tournament* was organized in the Regional College of Education, Bhopal, in January 1982, in which five teams participated. The Minister for Sports and Youth Welfare, Madhya Pradesh, Shri Ajay Narain Mushran inaugurated the tournament on 11 January 1982. Shri V.K. Pandit, Secretary, NCERT, distributed the prizes on 13 January 1982.

During the year under review, a number of vacancies, both academic and non-academic, were filled through the prescribed procedures, thus clearing the backlog to a considerable extent.

Establishment matters and personal problems were attended to expeditiously. Particular mention may be made of the prompt grant of House Building Advances, G.P. Fund Withdrawals, Cycle/Scooter/Car Loans, etc. The officials who retired during the year were sanctioned and paid retirement *benefits* at almost the same time as their date of retirement. The families of the deceased employees were given utmost sympathetic consideration and practically in every case, a member of the deceased family was employed in the Council, thus ameliorating their hardship to a certain extent. Out-of-turn residential accommodation was also provided in such cases.

In order to provide residential accommodation to more employees, 104 staff *quarters' construction* has been started on the campus of the NIE. These quarters will be ready for allotment during the year 1982-83.

The newly built five-storeyed building on the NIE Campus was allotted to the Library and some of the Departments, thus relieving congestion in the existing buildings.

Rules for recognition of Staff Associations have been framed with the approval of the Executive Committee.

Efforts have been made to introduce the *Group Insurance Scheme* of the Life Insurance Corporation for the benefit of the employees of the Council.

The PABX Telephone exchange of the Council has been augmented with an *additional 100 lines*, thus providing telephone facilities to more employees.

As a regular feature of the welfare activity of the NCERT an *Annual Sports* meet was held. The winners and runners of the team events and individual events were given prizes by the Director, NCERT.

### **The Use of Hindi**

During 1981-82, the Hindi Cell of the NCERT undertook a number of activities with the purpose of promoting the progressive use of the Hindi. The Council prepared a 'Consolidated Administrative Glossary (English-Hindi) of 298 pages. It is based on the glossaries prepared by the Commission for Scientific & Technical Terminology, Government of India. It was circulated to the various Departments/ Units, etc., of the Council.

The Council procured and distributed the following books to enable the Departments, Units, etc., to make the maximum use of Hindi in their work :

1. Routine office notings
2. General administration
3. Hindi names of offices
4. Telegrams in Hindi

5. Bilingual forms
6. Drafts of the telegrams in Hindi
7. Establishment work
8. Drafts of applications
9. Drafts pertaining to class IV employees.

A running shield was installed for being awarded to a Department/ Unit of the Council making the maximum use of Hindi in official work. The Centre for Educational Technology emerged the winner.

A total of 198 pages were translated by the cell from English into Hindi. These comprised forms (60 pages), memorandum and general letters (75 pages), and material pertaining to Accounts Branch of the Council (63 pages). Besides, 5 pages were translated from Hindi into English.

The Council issued seventeen circulars in Hindi. Information as to the use of Hindi in the Council was called for through sixteen circulars. The seventeenth circular contained the programme for the progressive use of Hindi during the year 1981-82 which mainly contained the following provisions :

1. Use of Hindi for prescribed purposes.
2. Use of both Hindi and English for specified purposes.
3. Sending Telegrams to offices located in 'A' States in the Devanagari script.
4. Provision of Hindi (Devanagari) typewriters.
5. Optional use of Hindi as an alternative medium of examination for recruitment to subordinate services and posts.
6. Arrangements for the use of Hindi as medium of instruction in departmental training centres.
7. Optional use of Hindi in departmental examinations.
8. Intensive steps to be taken to increase the use of Hindi in some selected cities.
9. Introduction of check points to ensure compliance of orders, instructions, etc.
10. Inspection of offices.
11. Preparation of International Treaties and Agreements both in Hindi and English.



12. Proposed list of check-points for the implementation of orders relating to the official language.
13. Printing of forms, codes, manuals and gazettee notifications in bilingual form.
14. Purchase of Devanagari typewriters.
15. Issue of general orders, etc., in bilingual form.
16. Letters sent to State Governments in Regions 'A' and 'B'.
17. Writing of addresses in Hindi on envelopes.
18. Rubber stamps, name-plates, sign-boards, etc., to be in bilingual form.
19. Entries in service book.
20. Sending replies in Hindi to letters received in Hindi.
21. Overall responsibilities.
22. Almost similar programmes were earmarked for 'B' and 'C' States also.

Two surveys were undertaken, one for the Committee of Parliament on Official Language and the other for the Council to decide the winner Department to whom the running shield could be awarded. The first survey contained a questionnaire of 17 pages for collecting information on 304 points; the second questionnaire contained 2 pages comprising 22 items.

During the year, the following typing work was completed in Hindi :

- (a) 1260 pages
- (b) Stencils 250 pages.

These included 28 manuscripts comprising 893 pages received from different departments/units of the Council.

### **Programme Monitoring**

This year, the Planning, Coordination and Evaluation Unit initiated the process of monitoring the NCERT programmes being conducted by the constituent units on a quarterly, half-yearly and annual basis. Shortfalls in expenditure and shortcomings in activities were identified, reasons thereof sought, and necessary corrections suggested to improve upon the existing procedures and practices.

### **Internal Work Study**

During the year under report, the Internal Work Study Unit completed two comprehensive studies on the organization and work system of the National Talent Search Unit and the Publication Department. The reports of these studies also contain recommendations regarding further strengthening of these two Units.

### **Receipts and Payments Account**

During the year 1981-82, grants amounting to Rs. 7,36,21,605/- were sanctioned by the Government for the activities of the Council under Plan and Non-Plan sections. In addition, the balance of Rs. 48,05,395.00 left with the Council out of the previous year's grant was also permitted to be utilized. Receipts amounting to Rs. 2,09,15,055.00 were realized from the sale of books and publications, paper, science kits, and from rent of Council's buildings. For specific projects, grants of Rs. 71,47,844/- were provided by the Government of India and other agencies.

Out of the above grants, a total expenditure of Rs. 9,63,93,260.00 was incurred on Plan and Non-Plan activities of the Council. The expenditure on specific projects incurred was of the order of Rs. 66,33,028.00.

**PROVISIONAL STATEMENT OF RECEIPTS AND PAYMENTS ACCOUNT OF THE NATIONAL COUNCIL OF  
EDUCATIONAL RESEARCH AND TRAINING, NEW DELHI, FOR THE YEAR 1981-82**

<i>Receipts</i>	<i>Amount (Rupees)</i>	<i>Payments</i>	<i>Amount (Rupees)</i>
Opening Balance	85,27,592.00	<i>Non-Plan</i>	
Grant from the Government of India Ministry of Education :		Pay and Allowances, Programmes, Contingent and Other Expenditure	8,06,05,697.00
Non-Plan	5,74,31,662	<i>Plan</i>	
Plan	1,61,89,943	Pay and Allowances and Other Ex- penditure including Programmes	1,57,87,563.00
<u>7,36,21,605.00</u>	7,36,21,605.00	Expenditure on Schemes Sponsored by Other Ministries/Bodies	66,33,028.00
Grants from various Ministries/Bodies for Specific Projects	71,47,844.00	GPF/CPF/CDS, etc.	69,90,615.00
Receipts from the Sale of Publications	1,51,82,029.00	Loans, Remittances, Deposits, Sus- pense and Other Advances	4,02,35,970.00
Miscellaneous Receipts including Rent of Residential Quarters	57,33,026.00	Closing Balance	81,55,345.00
GPF/CPF/CDS, etc.	73,85,427.00		
Loans, Remittances, Deposits, Suspense, and Advances	4,08,10,695.00		
	<u>15,84,08,218.00</u>		<u>15,84,08,218.00</u>

## **APPENDICES**

**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 components of the scheme as it exists at present are as follows :

**Objectives**

The following are the major objectives of the Scheme :

1. To sustain and promote voluntary effort for the improvement of education, especially school education.
2. To encourage quality journals of a professional nature which could help in disseminating educational innovations.
3. To promote extension work in education through voluntary organizations.

**Conditions of Eligibility**

**(A) Organizations**

1. A Professional Educational Organization (PEO) could be eligible for getting an 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 the 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 resolution of State Government shall not be entitled to assistance under this scheme.

2. It should normally be operating at national/regional level for the improvement of school education. Only in exceptional cases, and subject to funds permitting, shall applications from PEOs working at only the State level, be entertained.
3. It should be open to all citizens of India without distinction of region, race, caste, creed, sex, language.
4. It should be recognized where such recognition is required for securing grant from the State Government.
5. It should have a properly constituted managing body with its powers, duties and responsibilities clearly defined and laid down in a written constitution.
6. 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.
7. It should have at least 50 members on the roll on the date of application.
8. It should not be run for profit to any individual or a body of individuals.

**(B) Activities**

1. The following types of activities shall be normally supported by the NCERT :
  - (a) annual conferences provided they have a definite theme related to some national educational issues about which the NCERT may be concerned and/or support its work and may be useful in furtherance of 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.
2. No grant shall ordinarily be given for the following :
- (a) seminars, workshops especially 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 organizations on the NCERT, the financial assistance under this scheme shall be given only on a sharing basis as follows :

1. The grant-in-aid from the NCERT shall not normally exceed 60% of the expenditure on an activity during that year.
2. The remaining 40% 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% of the expenditure, the Council's share shall be accordingly reduced.
3. If, by chance, the Council's grant during a year has exceeded the admissible amount of 60% of the actual expenditure or the shortfall 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% of the expenditure =Rs. 1,020/-
- (b) Shortfall of expenditure from other sources  
(1700-900) =Rs. 800/-

- (c) Recoverable amount [Grant minus lesser of  
(a) and (b)] =Rs. 1,500/- –Rs. 800/-=Rs. 700/-

### **Procedure for Applying**

1. The PEOs should submit their applications in the prescribed application form complete in all respects and in duplicate.
2. Separate applications should be submitted for each programme or activity.
3. Each application should be accompanied by the following documents :
  - (a) Prospectus of the institution/organization or a brief description of its objects and activities.
  - (b) The constitution of the organization.
  - (c) A copy of latest available annual report.
  - (d) In cases of requests for grants for the publication of a journal/ other materials, copies of the previous issues of the journals/ previous publications.
  - (e) The audited statement of accounts of the organization for the previous year, along with a utilization certificate duly signed by the President/Secretary of the Association and the Auditors/Chartered Accountants, etc.

No grant can be sanctioned without the above documents.

### **General**

1. 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.
2. In the case of grants for annual conferences, the organization should associate some representatives of the NCERT with the conference.
3. 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 purposes 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.

4. The accounts and supporting documents shall be open to a test check by the Comptroller and Auditor-General of India at his discretion.
5. Where the NCERT have reasons to believe that sanctioned money is not being utilized for approved purposes, the grants may be recovered and the payment of further grants stopped.
6. An organization must exercise the utmost economy in the working of the programmes approved and assisted by the NCERT.
7. Applications for grant should be submitted to the Secretary, NCERT.

**ANNEXURE**

**Grants given by the NCERT to Various Professional Educational Organization during 1981-82 for Publication of Journals**

<i>S. No.</i>	<i>Name of the Association</i>	<i>Title of the Journal</i>	<i>Amount Sanctioned</i>
1	2	3	4
1.	All India Science Teachers Association, Sardar Patel Vidyalaya, New Delhi 3	<i>Vigyan Shikshak</i>	Rs. 3,500
2.	S.I.T.U. Council of Educational Research 169, R.K. Mutt Road Rajah Annamalaipuram, Madras	<i>Experiments in Education</i>	Rs. 3,000
3.	English Language Teachers Association of India 169, R.K. Mutt Road, R.A. Puram Madras 28	<i>English Language Teaching</i>	Rs. 5,000
4.	Indian Association for Pre-School Education R.S. Puram, Coimbatore 641002	<i>Balak</i>	Rs. 2,500
5.	Association for Improvement of Mathematics Teaching 25, Earn Road Calcutta 19	<i>Indian Journal of Mathematics Teaching</i>	Rs. 3,500
6.	Association for the Promotion of Science Education 169, R.K. Mutt Road Rajah Annamalaipuram Madras 28	<i>Junior Scientist</i>	Rs. 4,500
7.	Bangiya Bijnan Parishad P-33, R.R. Street Calcutta 6	<i>Jnan-e-Bijnan</i>	Rs. 3,500

1	2	3	4
8.	National Parent Teachers Association of India S-47, Panchshila Park New Delhi 17	<i>P.T.A. Quarterly Journal</i>	Rs. 2,558
9.	Institute of Educational Research 59. Usman Road Madras 100017	<i>Journal of the Institute of Educational Research</i>	Rs. 3,000
10.	Indian Physics Association C/o, Tata Institute of Fundamental Research Homi Bhabha Road Bombay 400005	<i>Physics News</i>	Rs. 5,000

**Grants given by the NCERT to Various Professional Educational Organizations during 1981-82 for Organizing Conferences, etc.**

<i>S. No.</i>	<i>Name of the Association</i>	<i>Purpose</i>	<i>Amount Sanctioned</i>
1	2	3	4
1.	Bal Kunj H-2/6 Model Town Delhi 110009	Programmes on 'Mass Awareness Campaign for Preventive Health Care'	Rs. 5,460
2.	Gandhi Non-Formal and Adult Education Centre Institute for Rural Research and Development LIG-17, Bodabag Colony Rewa	Environmental Conservation and Population Education for Rural development	Rs. 3,000
3.	Indian Academy of Social Science, Ishwar Saran Degree College Campus Allahabad 4	Vith Indian Social Science Congress	Rs. 5,000

1	2	3	4
4.	Indian Environmental Society, 8, Darya Ganj New Delhi 2	Environmental Education	Rs. 5,000
5.	Indian Association for Pre-School Education Lady Irwin College Sikandra Road New Delhi	XVIIth Annual Conference	Rs. 3,213
6.	Bombay Psychological Association Kalina Campus Vidya Nagar, Bombay	National Conference on Applied Psychology	Rs. 5,000
7.	Indian Association for Educational Technology Department of Education South Gujarat University Surat 395007	XIVth Annual Conference	Rs. 5,000
8.	All India Association On Mental Retardation AB-6 Safdarjung Enclave New Delhi 29	VIIIth National Conference	.....

## *Appendix B*

### **Location of Field Advisers in the States**

<i>Addresses</i>	<i>State Union Territory Covered</i>
1. Field Adviser (NCERT) Zoo Road Gauhati 781024	Assam Manipur Nagaland Arunachal Pradesh
2. Field Adviser (NCERT) S.I.E. Building Poojapura Trivandrum 695012	Kerala Lakshadweep
3. Field Adviser (NCERT) 3-6/147-2 Himayat Nagar Hyderabad 500029	Andhra Pradesh
4. Field Adviser (NCERT) A-33, Prabhu Marg (West) Tilak Nagar Jaipur 302004	Rajasthan
5. Field Adviser (NCERT) MIG-161, Block No. 6 Saraswati Nagar Jawahar Chowk Bhopal 462017	Madhya Pradesh
6. Field Adviser (NCERT) 555/E, Mumfordganj Allahabad 211002	Uttar Pradesh
7. Field Adviser (NCERT) Homi Bhabha Hostel RCE Campus Bhubaneswar 751007	Orissa

- |  |   |
|--|---|
| 8. Field Adviser (NCERT)<br>714, 9th, Cross<br>West of Chord Road<br>Rajaji Nagar<br>Bangalore 560010                                    | Karnataka   |
| 9. Field Adviser (NCERT)<br>1-B, Chandra Colony<br>Ahmedabad 380006  | Gujarat<br>Dadra and Nagar Haveli                   |
| 10. Field Adviser (NCERT)<br>No. 32, Hindi Prachara Sabha<br>Street, T. Nagar<br>Madras 600017   | Tamil Nadu<br>Pondicherry                           |
| 11. Field Adviser (NCERT)<br>128/2 Kothrud, Karve Road<br>Pune 4 11029   | Maharashtra<br>Goa                                  |
| 12. Field Adviser (NCERT)<br>P-23, C.I.T. Road<br>(L.V. Scheme)<br>Calcutta 700014   | West Bengal<br>A & N Islands<br>Sikkim              |
| 13. Field Adviser (NCERT)<br>Kankarbag, Patnakar Nagar<br>Patna 800020   | Bihar   |
| 14. Field Adviser (NCERT)<br>House No. 23, Sector 8 (A)<br>Chandigarh 160018   | Punjab<br>Haryana<br>Himachal Pradesh<br>Chandigarh |
| 15. Field Adviser (NCERT)<br>Nizam Manzil<br>Sher-i-Kashmir Colony<br>Sector-2, Rampura<br>Chattabal P.O. Karan Nagar<br>Srinagar 190010 | Jammu and Kashmir                                   |
| 16. Field Adviser (NCERT)<br>Boycee Road<br>Litumkhra<br>Shillong 793003   | Tripura<br>Mizoram<br>Meghalaya                     |

*Appendix C*

**Members of the National Council of Educational Research  
And Training  
(GENERAL BODY)**

*(Under Rule 13 of the Rules of the Council)*

- |  |   |
|--|---|
| (i) <b>The Minister for Education<br/>President, ex-officio</b>          | 1. <b>Shri S.B. Chavan<br/>Union Minister for<br/>Education<br/>Shastri Bhavan<br/>New Delhi 1<br/>1.4.1981 to<br/>7.8.1981</b><br><br><b>Mrs. Sheila Kaul<br/>Minister of State<br/>Ministry of Education<br/>Shastri Bhavan<br/>New Delhi 1<br/>8.8.1981 to<br/>3.13.1982</b> |
| (ii) <b>Chairman of the University<br/>Grants Commission, ex-officio</b> | 2. <b>Dr. (Mrs.) Madhuri R. Shah<br/>Chairman<br/>University Grants Commission<br/>Bahadur Shah Zafar Marg<br/>New Delhi 110001</b>   |
| (iii) <b>Secretary to the Ministry<br/>of Education, ex-officio</b>      | 3. <b>Shri T.N. Chaturvedi<br/>Secretary<br/>Ministry of Education<br/>Shastri Bhavan<br/>New Delhi 1<br/>1.4.1981 to<br/>10.8.1981</b><br><br><b>Mrs. Anna R. Malhotra<br/>Secretary<br/>Ministry of Education<br/>Shastri Bhavan<br/>New Delhi 110001</b>                     |

(iv) **Four Vice-Chancellors of Universities, one from each Region, nominated by the Government of India**

4. **Prof. S. Hamid  
Vice-Chancellor  
Aligarh Muslim University  
Aligarh**

5. **Shri R.K. Kanbarker  
Vice-Chancellor  
Shivaji University  
Kolhapur 416004**

6. **Prof. B.S. Ramakrishna  
Vice-Chancellor  
Hyderabad University  
Hyderabad 500001**

7. **Dr. V.K. Sukumaran Nair  
Vice-Chancellor  
Kerala University  
Trivandrum 695001**

(v) **One representative of each State Government and Union Territory with a legislature, who shall be the Education Minister of the State/Union Territory (or his representative) and in the case of Delhi the Chief Executive Councillor Delhi (or his representative)**

8. **Education Minister  
Andhra Pradesh  
Hyderabad**

9. **Education Minister  
Assam  
Dispur**

10. **Education Minister  
Bihar  
Patna**

11. **Education Minister  
Gujarat  
Ahmedabad**

12. **Education Minister  
Haryana  
Chandigarh**

13. **Education Minister  
Himachal Pradesh  
Simla**

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  
Govt. 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 1
- (vi) All Members of the Executive  
Committee not included above
34. ....
35. Shri P.K. Thungan  
Deputy Minister of Education  
Shastri Bhavan  
New Delhi  
30.1.82 to  
31.3.82
36. Dr. Shib K. Mitra  
Director  
National Council of Educational  
Research and Training  
New Delhi 110016
37. Prof. P.K. Bose  
Centenary Professor and Head  
Department of Statistics  
University College of Science  
35-Ballygunge Circular Road  
Calcutta 700016

38. **Prof. V.G. Kulkarni**  
**Tata Institute of Fundamental  
Research, Homi Bhabha Centre  
for Science Education**  
**Homi Bhabha Road**  
**Bombay 400005**
39. **Smt. Abala Gohain**  
**Principal**  
**Balya Bhavan**  
**Jorhat 1 (Assam)**
40. **Shri H.D. Gaokar**  
**KMS Dr. Shirodkar High School**  
**142/49 Dr. Borjes Road**  
**Parel**  
**Bombay 400012**
41. **Dr. T.N. Dhar**  
**Joint Director**  
**National Council of Educational  
Research and Training**  
**New Delhi 16**
42. **Shri S.H. Khan**  
**Reader**  
**Primary Curriculum Development  
Cell (NCERT)**  
**New Delhi 16**
43. **Dr. G.B. Kanungo**  
**Principal**  
**Regional College of Education**  
**Bhubaneswar 751007**
44. **Dr. A.K. Sharma**  
**Professor in Science (Chemistry)**  
**Regional College of Education**  
**Mysore 570006**
45. **Shri S. Sathyam**  
**Joint Secretary (SE)**  
**Ministry of Education**  
**Shastri Bhavan**  
**New Delhi**

- (vii) (a) **Chairman**  
**Central Board of Secondary**  
**Education**  
**New Delhi**  
**ex-officio**
- (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, I.C.A.R.**  
**Ministry of Agriculture**  
**New Delhi**  
**ex-officio**
- (e) **Director of Training**  
**Directorate General of**  
**Training and Employment**  
**Ministry of Labour**  
**Shram Shakti Bhavan**  
**Rafi Marg**  
**New Delhi 110001**
- (f) **Representative of**  
**Education Division**  
**Planning Commission**  
**New Delhi**  
**ex-officio**
46. **Shri J. A. Kalyanakrishnan**  
**Financial Adviser, NCERT and**  
**Ministry of Education**  
**Room No. 109-C**  
**Shastri Bhavan**  
**New Delhi 1**
47. **Chairman**  
**Central Board of Secondary**  
**Education**  
**17-B, Indra Prastha Estate**  
**New Delhi 110002**
48. **Commissioner**  
**Kendriya Vidyalaya Sangathan**  
**Nehru House**  
**4-Bahadur Shah Zafar Marg**  
**New Delhi 110002**
49. **Director**  
**Central Health Education**  
**Bureau (D.G.H.S.)**  
**Nirman Bhavan**  
**New Delhi 110001**
50. **Deputy Director General**  
**Incharge of Agricultural Educa-**  
**tion, I.C.A.R.**  
**Ministry of Agriculture**  
**Dr. Rajendra Prasad Road**  
**New Delhi 110001**
51. **Director of Training**  
**Directorate General of Training**  
**and Employment**  
**Ministry of Labour**  
**Shram Shakti Bhavan**  
**Rafi Marg**  
**New Delhi 110001**
52. **Educational Adviser**  
**Planning Commission**  
**Yojna Bhavan**  
**Parliament Street**  
**New Delhi 110001**

(viii) Such other persons, not exceeding six as the Government of India may, from time to time, nominate. Not less than four of these shall be school teachers.

53. Shri S. Ramaswamy  
Head Master and Correspondent  
T.V.S. Iyengar Higher  
Secondary School  
Madurai (Tamil Nadu)

54. Shri Kedar Nath Singh  
Science Teacher  
K. K. Vidya Mandir  
P.O. Dharawarh  
Distt. Vaishali  
Bihar

55. Smt. Salma Firdous  
Principal  
Higher Secondary School  
Kotabi Bagh  
Srinagar

56. Shri Bir Singh  
Professor  
Govt. College of Education (PSM)  
Near High Court  
Jabalpur (M.P.)

57. Dr. N.K. Upasani  
Hony. Professor  
Education Department  
S.N.D.T. University  
Bombay 400020

58. Dr. (Km.) M. Dollie Shenoy  
1-2-212/6/1, Gagan Mahal Road  
Dumalguda  
Hyderabad

(ix) Special invitees

59. Secretary  
Council of Indian School  
Certificate Examination  
Pragati House, 3rd Floor  
47-Nehru Place  
New Delhi 24

60. Shri V.K. Pandit  
Secretary  
National Council of  
Educational Research  
and Training  
New Delhi 16

## EXECUTIVE COMMITTEE

- |  |  |
|--|--|
| (i) <b>President of the Council who shall be the ex-officio President of the Executive Committee</b>                                     | 1. <b>Shri S.B. Chavan</b><br>Union Minister of Education<br>Ministry of Education<br>Shastri Bhavan<br>New Delhi 110001<br>(1.4.1981 to 7.8.1981)     |
| (ii) (a) <b>The Minister of State in the Ministry of Education who shall be the ex-officio Vice-President of the Executive Committee</b> | Smt. Sheila Kaul<br>Minister of State<br>Ministry of Education<br>Shastri Bhavan<br>New Delhi 110001<br>(8.8.1981 to 31.3.1982)                        |
| (b) <b>A Deputy Minister in the Ministry of Education nominated by the President, NCERT</b>  | 2. <b>Shri P.K. Thungan</b><br>Deputy Minister of Education<br>Ministry of Education<br>Shastri Bhavan<br>New Delhi 110001<br>(30.1.1982 to 31.3.1982) |
| (c) <b>Director of the Council</b>   | 3. <b>Prof. S. K. Mitra</b><br>Director<br>National Council of Educational Research and Training<br>New Delhi  |
| (d) <b>Secretary, Ministry of Education—ex-officio</b>   | 4. <b>Smt. Anna R. Malhotra</b><br>Secretary<br>Ministry of Education<br>Shastri Bhavan<br>New Delhi<br>(12.12.1981 to 31.3.1982)                      |

- |   |  |
|---|--|
| <p>(iii) <b>Chairman of the University Grants Commission Member, ex-officio</b></p>   | <p>5. <b>Smt. Madhuri R. Shah<br/>Chairman<br/>University Grants Commission<br/>Bahadur Shah Zafar Marg<br/>New Delhi 1</b></p>  |
| <p>(iv) <b>Four educationists with known interest in school education (two of whom shall be school teachers) nominated by the President</b></p>   | <p>6. <b>Prof. P.K. Bose<br/>Centenary Professor and Head<br/>Department of Statistics<br/>University College of Science<br/>35-Ballygunge Circular Road<br/>Calcutta 700019</b></p> <p>7. <b>Prof. V.G. Kulkarni<br/>Project Director<br/>Tata Institute of Fundamental<br/>Research, Homi Bhabha Centre<br/>for Science Education<br/>Homi Bhabha Road<br/>Bombay 400005</b></p> <p>8. <b>Smt. Abala Gohain<br/>Principal<br/>Balya Bhavan<br/>Jorhat (Assam)</b></p> <p>9. <b>Shri H.D. Gaokar<br/>KMS Dr. Shirodkar High School<br/>142/49 Dr. Banerjee Road<br/>Parel<br/>Bombay 400012</b></p> |
| <p>(v) <b>Joint Director of the Council</b></p>   | <p>10. <b>Dr. T.N. Dhar<br/>Joint Director<br/>National Council of Educational<br/>Research and Training<br/>New Delhi 16</b></p>  |
| <p>(vi) <b>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</b></p> | <p>11. <b>Shri S.H. Khan<br/>Reader<br/>Primary Curriculum Development<br/>Cell, NCERT<br/>New Delhi 110016</b></p>  |

- (vii) One representative of the Ministry of Education
- (viii) One representative of the Ministry of Finance, who shall be the Financial Adviser of the Council
12. **Dr. G.B. Kenungo**  
Principal  
Regional College of Education  
Bhubaneswar 751007
13. **Dr. A.K. Sharma**  
Professor in Science (Chemistry)  
Regional College of Education  
Mysore 570006
14. **Shri S. Sathvam**  
Joint Secretary (SE)  
Ministry of Education  
Shastri Bhavan, New Delhi
15. **Shri J.A. Kalyanakrishnan**  
Financial Adviser, NCERT  
Room No. 109, Shastri Bhavan  
New Delhi

**Shri V.K. Pandit**  
Secretary  
National Council of Educational  
Research and Training  
New Delhi 110016



### ESTABLISHMENT COMMITTEE

- |   |   |
|---|---|
| (i) The Director, NCERT<br>Chairman   | 1. Dr. Shib K. Mitra<br>Director, NCERT<br>Chairman   |
| (ii) The Joint Director<br>NCERT  | 2. Dr. T.N. Dhar<br>Joint Director<br>NCERT   |
| (iii) A nominee of the Ministry<br>of Education to be nominated<br>by the President                         | 3. Shri S. Sathyam<br>Joint Secretary (SE)<br>Ministry of Education<br>Shastri Bhavan<br>New Delhi                              |
| (iv) Four educationists to be<br>nominated by the President<br>of whom at least one shall<br>be a scientist | 4. Prof. M.I. Savadatti<br>Department of Physics<br>Karnataka University<br>Dharwar 580003                                      |
|   | 5. Prof. P.L. Malhotra<br>Dean of Colleges<br>Delhi University<br>Delhi   |
|   | 6. Dr. Francis Ekka<br>Prof. and Deputy Director<br>Central Institute of Indian<br>Languages<br>Manasagangotri<br>Mysore 570006 |
|   | 7. Prof. (Km.) A.S. Dastur<br>Head<br>Department of Civics and<br>Political Science<br>University of Bombay<br>Bombay           |
| (v) One representative from the<br>Regional College of Educa-<br>tion to be nominated by the<br>President   | 8. Shri P.C. Joseph<br>Store Keeper<br>Regional College of Education<br>Mysore 6  |

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| <p>(vi) One representative of the National Institute of Education, Delhi, to be nominated by the President</p> <p>(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</p> <p>(viii) Financial Adviser<br/>NCERT</p> <p>(ix) Secretary, NCERT<br/>(Member-Convener)</p> | <p>9. Km. S.K., Ram<br/>Reader, in English<br/>DESSH, NCERT<br/>New Delhi 16</p> <p>10. Shri Bala Gopala Varma<br/>Lecturer<br/>Regional College of Education<br/>Mysore 16</p> <p>11. Shri Prabodh Kumar, U.D.C.<br/>DESSH, NCERT</p> <p>12. Shri J.A. Kalyanakrishnan<br/>Financial Adviser, NCERT<br/>Room No. 109-C,<br/>Shastri Bhavan<br/>New Delhi</p> <p>13. Shri V.K. Pandit<br/>Secretary<br/>NCERT</p> |
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## FINANCE COMMITTEE

1. **Prof. S.K. Mitra**  
**Director**  
**National Council of Educational**  
**Research and Training**  
**New Delhi**  
**Chairman**
2. **Shri S. Sathyam**  
**Joint Secretary (SE)**  
**Ministry of Education**  
**Shastri Bhavan**  
**New Delhi**
3. **Prof. B. Ramachandra Rao**  
**Vice-Chairman**  
**University Grants Commission**  
**Bahadur Shah Zafar Marg**  
**New Delhi**
4. **Prof. V.G. Kulkarni**  
**Project Director**  
**Tata Institute of Fundamental**  
**Research**  
**Homi Bhabha Centre for**  
**Science Education**  
**Homi Bhabha Road**  
**Bombay 400005**
5. **Shri J.A. Kalyan Krishnan**  
**Financial Adviser**  
**Ministry of Education and**  
**NCERT**  
**Room No. 109 'C'**  
**Shastri Bhavan**  
**New Delhi**
6. **Shri V.K. Pandit**  
**Secretary**  
**NCERT**  
**Convener**

## BUILDING AND WORKS COMMITTEE

- |  |               |   |
|--|---------------|---|
| 1. Director, NCERT<br>ex-officio                             | Chairman      | 1. Dr. Shib K. Mitra<br>Director<br>NCERT   |
| 2. Joint Director<br>NCERT<br>ex-officio                     | Vice-Chairman | 2. Dr. T.N. Dhar<br>Joint Director<br>NCERT   |
| 3. Chief Engineer<br>CPWD or his<br>nominee                  | Member        | 3. Shri M.L. Kalra<br>Superintending Surveyor of<br>Works (Food)<br>CPWD, I.P. Bhavan<br>Indraprastha Estate<br>New Delhi                         |
| 4. A representative of<br>the Ministry of Finance<br>(Works) | Member        | 4. Shri A.K. Saxena<br>A.F.A. (Works)<br>Ministry of Works and<br>Housing<br>Room No. 340<br>'C' Wing (IIIrd Floor)<br>Nirman Bhavan<br>New Delhi |
| 5. The Consulting<br>Architect of the<br>Council             | Member        | 5. Shri K.M. Saxena<br>Senior Architect<br>HPT-2 CPWD,<br>Room No. 318<br>'A' Wing (IIIrd Floor)<br>Nirman Bhavan<br>New Delhi                    |
| 6. Financial Adviser<br>of the Council or<br>his nominee     | Member        | 6. Shri J.K. Kalyanakrishnan<br>Financial Adviser, NCERT<br>Room No. 109 'C'<br>Shastri Bhavan<br>New Delhi                                       |
| 7. A nominee of the<br>Ministry of Education                 | Member        | 7. Shri S. Sathyam<br>Joint Secretary (SE)<br>Ministry of Education<br>Shastri Bhavan<br>New Delhi  |

8. A Civil Engineer of standing nominated by the President	Member	8. Shri R. A. Khemani Chief Engineer Delhi Development Authority (DDA)
9. An Electrical Engineer of standing nominated by the President	Member	9. Shri T. Krishnamurthy Superintending Engineer Delhi Central Electric Circle-1 (5th Floor) C P W D, I. P. Bhavan Indraprastha Estate New Delhi
10. A member of the Executive Committee nominated by the Committee	Member	10. Shri S. H. Khan Reader Primary Curriculum Development Cell (PCDC), NCERT New Delhi 16
11. Secretary, NCERT	Member- Secretary	Shri V. K. Pandit Secretary NCERT

## PROGRAMME ADVISORY COMMITTEE

- |   |               |
|---|---------------|
| 1. Dr. Shib K. Mitra<br>Director<br>NCERT   | Chairman      |
| 2. Dr. T. N. Dhar<br>Joint Director<br>NCERT  | Vice-Chairman |
| 3. Prof. Srinivas Bhattacharya<br>Professor of Education<br>Vishva Bharati<br>Shantiniketan (W. B.)             | Member        |
| 4. Prof. B. K. Passi<br>Head of the Education Department<br>Indore University, Indore (M. P.)                   | -do-          |
| 5. Prof. K. Kumaraswamy Pillai<br>Professor of Education<br>Annamalai University<br>Annamalai Nagar, Tamil Nadu | -do-          |
| 6. Prof. K. Padma Umapati<br>Professor of Home Science<br>University of Mysore<br>Mysore                        | -do-          |
| 7. Prof. B. R. Kamble<br>Head of the History Department<br>Shivaji University<br>Kolhapur (Maharashtra)         | -do-          |
| 8. The Director<br>State Institute of Education<br>Sector 20-D<br>Chandigarh (Punjab)                           | -do-          |
| 9. Principal<br>State Institute of Education<br>Trivandrum (Kerala)   | -do-          |

10.	The Director State Institute of Education Jorhat 785001 (Assam)	Membe
11.	The Director State Institute of Education M. S. Sadashiv Peth Kumethkar Road Pune	-do-
12.	The Director Deptt. of State Educational Research and Training Shri B. P. Wadia Road Basavangudi Bangalore (Karnataka)	-do-
13.	Head Department of Measurement and Evaluation NCERT	-do-
14.	Head Department of Education in Science and Mathematics, NCERT	-do-
15.	Head Department of Education in Social Sciences and Humanities, NCERT	-do-
16.	Head Department of Teacher Education NCERT	-do-
17.	Head Workshop Department NCERT	-do-
18.	Head Publication Department, NCERT	-do-
19.	Head Department of Teaching Aids NCERT	-do-
20.	Head Comprehensive Access to Primary Education Group NCERT	-do-

21.	<b>Head Curriculum Group, NCERT</b>	<b>Member</b>
22.	<b>Professor Non-Formal Education Group, NCERT</b>	<b>-do-</b>
23.	<b>Head Educational &amp; Vocational Guidance Unit NCERT</b>	<b>-do-</b>
24.	<b>Head Child Study Unit, NCERT</b>	<b>-do-</b>
25.	<b>Head SC/ST Education Unit, NCERT</b>	<b>-do-</b>
26.	<b>Head Educational Psychology Unit NCERT</b>	<b>-do-</b>
27.	<b>Head Women, Education Unit, NCERT</b>	<b>-do-</b>
28.	<b>Head Population Education Unit, NCERT</b>	<b>-do-</b>
29.	<b>Head Extension Unit, NCERT</b>	<b>-do-</b>
30.	<b>Head Planning, Coordination and Evaluation Unit, NCERT</b>	<b>-do-</b>
31.	<b>Head Vocationalization of Education Unit and SUPW Unit, NCERT</b>	<b>-do-</b>
32.	<b>Head Survey and Data Processing Unit NCERT</b>	<b>-do-</b>
33.	<b>Head Library and Documentation Unit NCERT</b>	<b>-do-</b>



34.	Head National Talent Search Unit, NCERT	Member
35.	Head Primary Curriculum Development Cell NCERT	-do-
36.	Head Journals Cell, NCERT	-do-
37.	Officer-in-charge Hindi Cell, NCERT	-do-
38.	Principal Centre for Educational Technology	-do-
39.	Principal Regional College of Education Ajmer	-do-
40.	Principal Regional College of Education Bhubaneswar	-do-
41.	Principal Regional College of Education Bhopal	-do-
42.	Principal Regional College of Education Mysore	-do-
43.	Prof. K. N. Saxena Department of Teacher Education NCERT	-do-
44.	Prof. A. N. Maheshwari Regional College of Education Mysore	-do-
45.	Dr. Pritam Singh Reader Department of Measurement and Evaluation	-do-

46.	Dr. B. D. Atreya Reader Department of Education in Science and Mathematics	Member
47.	Km. S. K. Ram Reader Department of Education in Social Sciences and Humanities	-do-
48.	Shri Tilak Raj Reader Department of Teaching Aids	-do-
49.	Km. K. Wadia Editor Publication Department	-do-
50.	Dr. M. V. Ramji Reader Regional College of Education Bhubaneswar (Orissa)	-do-
51.	Dr. J. S. Grewal Reader Regional College of Education Bhopal (M. P.)	-do-
52.	Dr. (Smt.) Amrit Kaur Reader Regional College of Education Ajmer	-do-
53.	Dr. Jagdish Singh Reader Centre for Educational Technology	-do-

## ADVISORY COMMITTEE FOR SCHOOL CURRICULUM

- |   |          |
|---|----------|
| 1. Dr. Shib K. Mitra<br>Director<br>NCERT   | Chairman |
| 2. Dr. T. N. Dhar<br>Joint Director, NCERT  | Member   |
| 3. Vice-Chairman, U.G.C.<br>Bahadur Shah Zafar Marg<br>New Delhi  | -do-     |
| 4. Prof. R. C. Paul<br>Vice-Chancellor<br>Panjab University<br>Chandigarh   | -do-     |
| 5. Prof. G. R. Damodaran<br>Vice-Chancellor<br>University of Madras<br>Madras   | -do-     |
| 6. Prof. Resheeduddin Khan<br>Chairman<br>Centre for Political Studies<br>School of Social Sciences<br>Jawaharlal Nehru University<br>New Delhi | -do-     |
| 7. Dr. Suma Chitnis<br>Professor<br>Tata Institute of Social Sciences<br>Sion, Trombay Road, Bombay   | -do-     |
| 8. Dr. Amrik Singh<br>Secretary<br>Association of Indian Universities<br>Dindyal Upadhyaya Marg<br>New Delhi                                    | -do-     |

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|-----|--|---------------|
| 9.  | <b>Dr. Rajammal P. Devadas</b><br><b>Principal, Sri Avinashilingam</b><br><b>Home Science College for Women</b><br><b>Coimbatore</b>   | <b>Member</b> |
| 10. | <b>Prof. S. M. Chatterji</b><br><b>98/39, Gopal Lal Tagore Road</b><br><b>Calcutta</b>   | <b>-do-</b>   |
| 11. | <b>Dr. Gopal Singh</b><br><b>Chairman, World Sikh University</b><br><b>Press, 7, Poorvi Marg</b><br><b>Vasant Vihar</b><br><b>New Delhi</b>  | <b>-do-</b>   |
| 12. | <b>Shri V. G. Kulkarni</b><br><b>Project Leader</b><br><b>Tata Institute of Fundamental Research</b><br><b>Homi Bhabha Centre for Science</b><br><b>Education</b><br><b>Homi Bhabha Road</b><br><b>Bombay 400005</b> | <b>-do-</b>   |
| 13. | <b>Dr. Mohammad Ahmed</b><br><b>Reader in Medicine</b><br><b>Jawaharlal Nehru Medical College</b><br><b>Aligarh Muslim University</b><br><b>Aligarh</b>  | <b>-do-</b>   |
| 14. | <b>Shri M. N. Kapur</b><br><b>Director</b><br><b>Guru Shikhar School</b><br><b>Mount Abu</b><br><b>Rajasthan</b>   | <b>-do-</b>   |
| 15. | <b>Dr. S. N. Mehrotra</b><br><b>Vice-Chancellor</b><br><b>Agra University</b><br><b>Agra</b>   | <b>-do-</b>   |
| 16. | <b>Prof B. K. Roy Burman</b><br><b>Department of Rural Studies</b><br><b>Visva-Bharati</b><br><b>District Birbhum</b><br><b>Şriniketan 731236 West Bengal</b>  | <b>-do-</b>   |

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| 17. | <b>Smt. Ashima Chaudhuri</b><br><b>Principal</b><br><b>South Delhi Polytechnic for</b><br><b>Women</b><br><b>N-9, Ring Road, South Extension,</b><br><b>Part I, New Delhi 110049</b> | Member |
| 18. | <b>Dr. Prem Kirpal</b><br><b>63-F Block, Sujan Singh Park</b><br><b>New Delhi 110003</b>   | -do-   |
| 19. | <b>Dr. P.L. Malhotra</b><br><b>Principal</b><br><b>College of Vocational Studies</b><br><b>University of Delhi</b><br><b>Delhi 110007</b>  | -do-   |
| 20. | <b>Director</b><br><b>All India Institute of Medical Sciences</b><br><b>Ansari Nagar</b><br><b>New Delhi 110016</b>  | -do-   |
| 21. | <b>Dr. Nagendra</b><br><b>Professor of Hindi</b><br><b>University of Delhi</b><br><b>16, Cavalry Lines</b><br><b>Delhi 110007</b>  | -do-   |
| 22. | <b>Dr. (Smt.) Usha K. Luthra</b><br><b>(Sr.) Deputy Director General</b><br><b>Indian Council of Medical Research</b><br><b>Ansari Nagar</b><br><b>New Delhi 110016</b>              | -do-   |
| 23. | <b>Shri A.K. Dhan</b><br><b>Vice-Chancellor</b><br><b>North-Eastern Hill University</b><br><b>Shillong</b>   | -do-   |
| 24. | <b>Dr. H.S.S. Lawrence</b><br><b>5, Arulagam, Bragadambal Road</b><br><b>Nungambakkam</b><br><b>Madras</b>   | -do-   |

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| 25. Prof. J.J. Nanavati<br>Central Bombay Service-I (R)<br>11 Napier Road<br>Pune 411001  | Member               |
| 26. Prof. L.K. Mahapatra<br>Head, Department of Anthropology<br>Utkal University<br>Vani Vihar<br>Bhubaneswar (Orissa)                            | -do-                 |
| 27. Dr. K.R. Srinivasan Iyengar<br>152-Katchery Road<br>Mylapore<br>Madras 600004   | -do-                 |
| 28. The Principal<br>Netarhat School<br>P.O. Netarhat (via Ranchi)<br>Bihar   | Ex-officio<br>Member |
| 29. Commissioner<br>Kendriya Vidyalaya Sangathan<br>(Central Schools Organization)<br>Nehru House, Bahadur Shah Zafar<br>Marg, New Delhi          | -do-                 |
| 30. Assistant Director General<br>(Education)<br>Indian Council of Agricultural<br>Research, Krishi Bhavan<br>Dr. Rajendra Prasad Road, New Delhi | -do-                 |
| 31. Director of Primary Education<br>Primary Education Directorate<br>Govt. of West Bengal<br>New Secretariat Building<br>Calcutta (West Bengal)  | -do-                 |
| 32. Chairman<br>Central Board of Secondary<br>Education, 17-B<br>Indraprastha Estate, New Delhi   | -do-                 |

33. President Council of Boards of Secondary Education in India 17-B, Indraprastha Estate New Delhi	Ex-officio Member
34. Director State Institute of Education Govt. of Maharashtra Kumthekar Marg Pune (Maharashtra)	-do-
35. Secretary Council for the Indian School Certificate Examination Pragati House, 47-48, Nehru Place New Delhi	-do-
36. Member-Secretary Indian Council of Social Science Research Indraprastha Estate New Delhi 110002	-do-
37. Director Netaji Subhas National Institution of Sports Moti Bagh Patiala 147001	-do-
38. The Director of Public Instruction Government of Kerala Trivandrum	-do-
39. All the Heads of Departments/Units and Professors of NIE	Permanent invitees
40. Principal and Professor(s) CET	-do-
41. Reader (Programmes)	-do- (Convener)

**ADVISORY COMMITTEE ON ELEMENTARY  
AND SECONDARY EDUCATION**

- |  |                              |
|--|------------------------------|
| 1. Director, NCERT   | <b>Chairman</b>              |
| 2. Joint Secretary (Schools)<br>Government of India<br>Ministry of Education and Culture<br>(Department of Education)<br>Shastri Bhavan<br>New Delhi | <b>Ex-officio<br/>Member</b> |
| 3. Joint Secretary to the Government<br>of India<br>(Nutrition and Child Development)<br>Department of Social Welfare<br>Shastri Bhavan<br>New Delhi | <b>-do-</b>                  |
| 4. Joint Adviser (Education)<br>Planning Commission<br>Government of India<br>Yojna Bhavan<br>Parliament Street<br>New Delhi                         | <b>-do-</b>                  |
| 5. Joint Director, NCERT   | <b>Member</b>                |
| 6. Education Commissioner<br>Government of Bihar<br>New Secretariat<br>Patna 800015  | <b>Ex-officio<br/>Member</b> |
| 7. Education Secretary<br>Government of Madhya Pradesh<br>Education Department<br>Vallabh Bhavan<br>Bhopal 462004                                    | <b>Member</b>                |
| 8. Commissioner<br>Education Department<br>Government of Rajasthan Secretariat<br>Jaipur   | <b>-do-</b>                  |



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| <p>9. <b>Education Secretary</b><br/> <b>Education Department</b><br/> <b>Government of Andhra Pradesh</b><br/> <b>Hyderabad 500022</b></p>   | <p><b>Ex-officio</b><br/> <b>Member</b></p> |
| <p>10. <b>Education Commissioner</b><br/> <b>Government of Jammu and Kashmir</b><br/> <b>Srinagar</b></p>   | <p>-do-</p>                                 |
| <p>11. <b>Education Secretary</b><br/> <b>Education Department</b><br/> <b>Government of West Bengal</b><br/> <b>Writer's Building</b><br/> <b>Calcutta 700001</b></p>  | <p>-do-</p>                                 |
| <p>12. <b>Secretary</b><br/> <b>Education and Youth Services</b><br/> <b>Department</b><br/> <b>Government of Orissa</b><br/> <b>Bhubaneswar</b></p>  | <p>-do-</p>                                 |
| <p>13. <b>Director</b><br/> <b>Directorate of Primary and Adult Education</b><br/> <b>O-4, New Mental Hospital Building</b><br/> <b>Ahmedabad 380016</b></p>  | <p>-do-</p>                                 |
| <p>14. <b>Director of Education</b><br/> <b>Himachal Pradesh Government</b><br/> <b>Glen Hegan</b><br/> <b>Simla 171001</b></p>   | <p>-do-</p>                                 |
| <p>15. <b>Director of Public Instructions</b><br/> <b>(Primary Education)</b><br/> <b>New Public Offices</b><br/> <b>Bangalore 560001</b></p>   |   |
| <p>16. <b>Director of Education</b><br/> <b>(Primary Education/Secondary Edu-</b><br/> <b>cation)</b><br/> <b>Government of Maharashtra</b><br/> <b>Central Building</b><br/> <b>Pune 1 (Maharashtra)</b></p> | <p>-do-</p>                                 |

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| 17. | <b>Education Secretary</b><br><b>Government of Assam</b><br><b>Sachivalaya, Dispur</b><br><b>Gauhati</b>  | <b>Ex-officio</b><br><b>Member</b> |
| 18. | <b>Director of Public Instructions</b><br><b>(School)</b><br><b>Office of the Director of</b><br><b>Public Instruction, Punjab</b><br><b>Sector 17-E, S.C O., 95-97</b><br><b>Chandigarh 160017</b> | <b>-do-</b>                        |
| 19. | <b>Principal</b><br><b>State Institute of Education</b><br><b>Roop Nagar</b><br><b>Delhi 110007</b>   | <b>-do-</b>                        |
| 20. | <b>Director of Education</b><br><b>Government of Tamil Nadu</b><br><b>College Road</b><br><b>D. P. I. Compound</b><br><b>Madras 600006</b>  | <b>-do-</b>                        |
| 21. | <b>Director</b><br><b>State Institute of Education</b><br><b>Punjabura</b><br><b>Trivandrum 12 (Kerala)</b>   | <b>-do-</b>                        |
| 22. | <b>Chairman</b><br><b>Maharashtra State Board of Secondary</b><br><b>and Higher Secondary Education</b><br><b>Shivaji Nagar</b><br><b>Pune 401010 (Maharashtra)</b>                                 | <b>-do-</b>                        |
| 23. | <b>Chairman</b><br><b>Board of Secondary Education</b><br><b>Rajasthan, Jaipur Road</b><br><b>Ajmer 305001 (Rajasthan)</b>  | <b>-do-</b>                        |
| 24. | <b>Chairman/Administrator</b><br><b>West Bengal Board of Secondary</b><br><b>Education</b><br><b>77/2, Park Street</b><br><b>Calcutta 700016</b>  | <b>-do-</b>                        |

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| 25. Chairman<br>Karnataka Secondary Education<br>Examination Board, Malleswaram<br>Bangalore 560003 (Karnataka)            | Ex-officio<br>Member |
| 26. Chairman<br>Board of High School and Inter-<br>mediate Education<br>Examination, Uttar Pradesh<br>Allahabad (U.P.)     | -do-                 |
| 27. Secretary to the Government of<br>Uttar Pradesh<br>Education (5) Section<br>Lucknow (U.P.)                             | -do-                 |
| 28. Chairman<br>Central Board of Secondary<br>Education<br>17-B, Indraprastha Estate<br>Ring Road<br>New Delhi 110002      | -do-                 |
| 29. Shri C. V. Sitaramayya<br>Headmaster<br>P. H. School (B), Tonuku<br>West Godavari (A.P.)                               | Member               |
| 30. Commissioner<br>Kendriya Vidyalaya Sangathan<br>Nehru House<br>Bahadur Shah Zafar Marg<br>New Delhi 110002             | Ex-officio<br>Member |
| 31. The Director<br>Directorate of Adult Education<br>34, Community Centre<br>Basant Lok, Vasant Vihar<br>New Delhi 110057 | -do-                 |
| 32. The Director<br>Central Buildings Research Institute<br>Roorkee (U.P.)   | -do-                 |

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| 33. | <b>Dr. S. B. Adaval</b><br><b>Head of the Department of Edu-</b><br><b>cation</b><br><b>University of Allahabad</b><br><b>Allahabad 211002 (U.P.)</b>   | <b>Ex-officio</b><br><b>Member</b> |
| 34. | <b>Prof. H. B. Majumdar</b><br><b>C B-71-Salt Lake City</b><br><b>Sector-1</b><br><b>Calcutta 700 064</b>   | -do-                               |
| 35. | <b>Dr. Salamtullah</b><br><b>123, Zakir Nagar</b><br><b>New Delhi 110020</b>  | -do-                               |
| 36. | <b>Dr. (Smt.) Chitra Naik</b><br><b>Director</b><br><b>State Resource Centre for Non-</b><br><b>Formal Education</b><br><b>Indian Institute of Education</b><br><b>128/2, Karve Road, Kothrud</b><br><b>Pune 411029 (Maharashtra)</b> | -do-                               |
| 37. | <b>Shri Manubhai Pancholi</b><br><b>Director</b><br><b>Lok Bharati</b><br><b>Sansora 364230</b><br><b>Distt. Bhavnagar (Gujarat)</b>  | -do-                               |
| 38. | <b>Shri Vajubhai Patel</b><br><b>Secretary</b><br><b>Nai Talim Samiti</b><br><b>Gandhi Shikshan Bhavan</b><br><b>Juhu</b><br><b>Bombay 400049</b>   | <b>Member</b>                      |
| 39. | <b>Shri K. L. Bordia</b><br><b>President</b><br><b>Vidya Bhawan Society</b><br><b>Udaipur (Rajasthan)</b>   | -do-                               |
| 40. | <b>Smt. Vidya Stokes</b><br><b>Vice-Chairman</b><br><b>Bharat Krishak Samaj</b><br><b>'Ekant Van' P.O. Dhali</b><br><b>Simla (H.P.)</b>   | -do-                               |

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| 41. | <b>Dr. C. Prasad</b><br>Assistant Director General (Edn.)<br>Indian Council of Agricultural<br>Research<br>Krishi Bhavan<br>Dr. Rajendra Prasad Road<br>New Delhi 110001                 | Member               |
| 42. | <b>Dr. B. C. Ghoshal</b><br>Director<br>Central Health Education Bureau<br>Directorate General Health Services<br>Ministry of Health and Family<br>Welfare<br>Nirman Bhavan<br>New Delhi | -do-                 |
| 43. | <b>The Principal</b><br>Regional College of Education<br>Mysore  | Ex-officio<br>Member |
| 44. | <b>The Principal</b><br>Regional College of Education<br>Bhopal (M.P.)   | -do-                 |
| 45. | <b>The Principal</b><br>Regional College of Education<br>Bhubaneswar (Orissa)  | -do-                 |
| 46. | <b>The Principal</b><br>Regional College of Education<br>Ajmer (Rajasthan)   | -do-                 |
| 47. | <b>Field Adviser (NCERT)</b><br>Zoo Road<br>Gauhati 781024   | -do-                 |
| 48. | <b>Field Adviser (NCERT)</b><br>No. 32, Hindi Prachar Sabha Street<br>T. Nagar, Madras 600017  | -do-                 |
| 49. | <b>Field Adviser (NCERT)</b><br>555-E, Mumfordganj<br>Allahabad 211002 (U.P.)  | -do-                 |

50. Field Adviser (NCERT) 128/2, Kethrud, Karve Road (Near Maruti Mandir Bus Stop) Pune 411029 (Maharashtra)	Ex-officio Member
51. Head Primary Curriculum Development Cell NCERT	Member
52. Head Comprehensive Access to Primary Education NCERT	-do-
53. Head Non-Formal Education NCERT	-do-
54. Head Department of Teacher Education NCERT	-do-
55. Head Child Study Unit NCERT	-do-
56. Dr. H. S. S. Lawrence 5. Arulagam Bragadambal Road Nungambakkam Madras 600034	-do-
57. Head Women's Education Unit NCERT	-do-
58. Head Extension Unit NCERT	-do-
59. Principal Centre for Educational Technology NCERT	-do-
60. Head Curriculum Group NCERT	-do-

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|---|----------|
| 61. Head<br>Tribal Education Unit<br>NCERT  | -do-     |
| 62. Head<br>Vocationalization of Education Unit<br>NCERT                                  | Member   |
| 63. Reader (Programmes)<br>NCERT  | -do-     |
| 64. Director<br>State Council of Educational<br>Research and Training<br>Haryana, Gurgaon | -do-     |
| 65. Dean (Academic)<br>NCERT  | Convener |

**MEMBERS OF EDUCATIONAL RESEARCH AND  
INNOVATION COMMITTEE'**

- |   |                  |
|---|------------------|
| 1. Dr. Shib K. Mitra<br>Director, NCERT   | Patron           |
| 2. Dr. T. N. Dhar<br>Joint Director, NCERT  | Chairman         |
| 3. Dr. C. H. K. Misra<br>Professor of Education, NCERT  | Member-Secretary |
| 4. Dr. S. B. Adaval<br>Professor of Education (Retired)<br>3, Bank Road<br>Allahabad 211002   | Member           |
| 5. Dr. C. L. Anand<br>Professor of Education<br>North-Eastern Hill University<br>Shillong   | -do-             |
| 6. Dr. Ramesh Mohan<br>Director<br>Central Institute of English and<br>Foreign Languages<br>Hyderabad                                 | -do-             |
| 7. Dr. B. N. Mukherjee<br>Head, Psychometry Division<br>Indian Statistical Institute<br>206, Barrackpur Trunk Road<br>Calcutta 700035 | -do-             |
| 8. Prof. A. B. Kulkarni<br>Professor of Chemistry,<br>University of Bombay<br>Bombay  | -do-             |



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| 9.  | <b>Prof. (Smt.) Amita Verma</b><br><b>Professor of Child Development</b><br><b>Department of Home Science</b><br><b>University of Baroda</b><br><b>Baroda</b> | <b>Member</b> |
| 10. | <b>Prof. P. G. K. Panikar</b><br><b>Director</b><br><b>Centre for Development Studies</b><br><b>Trivandrum 695001</b>   | -do-          |
| 11. | <b>Dr. J. N. Kapoor</b><br><b>Senior Professor of Mathematics</b><br><b>Indian Institute of Technology</b><br><b>Kanpur (U.P.)</b>                            | -do-          |
| 12. | <b>Dr. K. Venkatasubramanian</b><br><b>Director of School Education and</b><br><b>SCERT</b><br><b>DPI Compound, College Road</b><br><b>Madras 600006</b>      | -do-          |
| 13. | <b>Shri B. P. Argal</b><br><b>Director</b><br><b>State Institute of Education</b><br><b>Bhopal (M.P.)</b>   | -do-          |
- All the NIE Heads of Departments/  
 Units/Principal CET/Principal RCEs  
 are members and all the Professors  
 of NIE and RCEs are permanent  
 invitees.**

## COORDINATION COMMITTEES

### 1. *Coordination Committees for Curriculum Development*

- (a) Head, Department of Education in Social Sciences and Humanities
- (b) Head, Department of Education in Science and Mathematics
- (c) Head, Department of Teacher Education.
- (d) Head, Women, Education Unit
- (e) Head, Comprehensive Access to Primary Education Group
- (f) Head, SC/ST Education Unit
- (g) Head, Primary Curriculum Development Cell
- (h) Head, Vocationalization of Education Unit
- (i) A representative of the Planning, Coordination and Evaluation Unit
- (j) Prof. Anil Vidyalankar
- (k) Head, Curriculum Group (Convener)

### 2. *Coordination Committee for Educational Technology*

- (a) Head, Department of Teaching Aids
- (b) Head, Department of Education in Social Sciences and Humanities
- (c) Head, Department of Education in Science and Mathematics
- (d) Head, Department of Teacher Education
- (e) Head, Extension Unit, FAs concerned with Educational Technology progress in States
- (f) A representative of the Planning, Coordination and Evaluation Unit
- (g) Principal, Centre for Educational Technology (Convener)

**3. *Coordination Committee for Non-Formal Education***

- (a) Head, Comprehensive Access to Primary Education Group
- (b) Head, Primary Curriculum Development Cell
- (c) Head, SC/ST Education Unit
- (d) Head, Women's Education Unit
- (e) Head, Extension Unit
- (f) Head, Curriculum Group
- (g) Head, Department of Measurement and Evaluation
- (h) A representative of the Planning, Coordination and Evaluation Unit
- (i) Shri A. A. C. Lal
- (j) Prof. K. G. Rastogi (Convener)

**4. *Coordination Committee for Measurement and Evaluation***

- (a) Head, Department of Education in Social Sciences and Humanities
- (b) Head, Department of Education in Science and Mathematics
- (c) Head, Department of Teacher Education
- (d) Head, Educational and Vocational Guidance Unit
- (e) Head, Educational Psychology Unit
- (f) Head, Curriculum Group
- (g) Head, Primary Curriculum Development Cell
- (h) Head, Comprehensive Access to Primary Education Group
- (i) Head, Child Study Unit
- (j) Dr. (Smt.) S. Shukla, Centre for Educational Technology
- (k) A representative of Planning, Coordination and Evaluation Unit
- (l) Head, Department of Measurement and Evaluation (Convener)

**5. *Coordination Committee for Teacher Evaluation and Other Programmes***

- (a) Head, Department of Education in Social Sciences and Humanities, NCERT
- (b) Head, Department of Teaching Aids, NCERT
- (c) Head, Educational and Vocational Guidance Unit, NCERT
- (d) Head, Comprehensive Access to Primary Education Group, NCERT

- (e) Head, Child Study Unit, NCERT
- (f) Principal, Centre for Educational Technology, NCERT
- (g) Head, Department of Measurement and Evaluation, NCERT
- (h) Head, Educational Psychology Unit, NCERT
- (i) Head, Planning, Coordination and Evaluation Unit, NCERT
- (j) Head, Vocationalization of Education Unit, NCERT
- (k) Reader (Programmes), NCERT
- (l) Head, Department of Education in Science and Mathematics, NCERT
- (m) Head, Primary Curriculum Development Cell, NCERT
- (n) Head, Department of Teacher Education, NCERT (Convener)

*Appendix D*

**Major Decisions taken by the Committees  
during 1981-82**

**THE BUILDING AND WORKS COMMITTEE**

(20 April 1981)

The Committee recommended that the NCERT may take up with All India Radio the construction of the CET/DTA building ..... AIR would assist the NCERT in setting up a sound and TV studio.

The Committee recommended the proposal for the construction of 84 additional (residential) quarters (for Council's employees in Delhi).

**THE EXECUTIVE COMMITTEE**

(5 August 1981 and 1 October 1981)

The general agreement reached was that the textbooks should be revised only after a period of five years.

It was felt that a long term educational perspective should be developed for the NCERT.

The Executive Committee approved in principle the ..... (i) establishment of a cell for special-education at the NCERT headquarters; and (ii) development of suitable cells for special education in the Regional Colleges of Education.

The President stated that if at all the consultancy work was accepted, it should be by the Council and not by any individual on behalf of the Council. That being so, there should be no question of any individual officer accepting payment for consultancy services.

The Executive Committee approved the transfer of a piece of land, measuring one acre, out of the National Institute of Education Campus, Delhi, to the National Book Trust.

The Executive Committee approved the draft Annual Report for the year 1980-81, for being placed before the General Body of the Council, duly edited and printed, for its consideration and approval for submission to the Government of India.

#### THE FINANCE COMMITTEE

(4 September 1981, 17 October 1981, and 28 January 1982)

The Finance Committee recommended for approval the price of the Journals noted against each : (i) Indian Educational Review: Rs. 7, (ii) Journal of Indian Education: Rs. 3, (iii) School Science: Rs. 3, (iv) The Primary Teacher: Rs. 1.50; and (v) Primary Shikshak: Rs. 1.50.

The Finance Committee recommended, for approval of the Executive Committee, the following rates of remuneration for Lecturers engaged on part-time basis in the Regional Colleges of Education :

- |                          |                    |
|--------------------------|--------------------|
| (i) 3-6 hours per week   | Rs. 400 p.m. fixed |
| (ii) 7-10 hours per week | Rs. 650 p.m. fixed |

The Finance Committee approved the creation of one post of Officer-on-Special Duty at the level of Deputy Secretary, in the pay scale of Rs. 1500-1800 to begin with, for a period of one year, in the first instance. The post will be created as ex-cadre, and will be filled through DPC.

After discussion it was decided that while in view of the large sums being paid as rent for hiring storage space, it would be desirable for the Council to construct its own godowns.

In view of the reorganization of the Departments ..... the Finance Committee recommended that "11 (eleven) posts of peons, out of the 22 posts held in abeyance earlier, be released for being filled up subject to the condition that the total strength would be 100."

Looking to the difficulties faced by the staff, the Finance Committee recommended the purchase of four LIG flats from the Gujarat Housing Board, Ahmedabad,

for allotment to the staff members of the office of the Field Adviser, NCERT, at Ahmedabad.

#### THE ESTABLISHMENT COMMITTEE

(14 August 1981 and 23 March 1982)

No officer of the Council be allowed to accept any assignment within India or outside unless he has put in three years of permanent service in the Council.

Appreciating the urgency of the matter, the Establishment Committee recommended that a committee be constituted for carrying out a review of the cadres and promotional policies which are in operation.

The basic requisites/requirements of scale of pay of the Lecturers in the Council should be in consonance with the University Departments and the anomaly of the introduction of the assessment stage, while following the recruitment stipulation of the University, should not be allowed to continue.

After detailed consideration, the Establishment Committee recommended that the incumbents in (dead-end-cadres) categories, could be placed in the higher scales of the category as and when the incumbent concerned had crossed a minimum of the higher scale. The higher scale so awarded would be personal to the incumbent concerned. This would be decided upon in individual cases after due assessment of his performance.

The Establishment Committee recommended that a general administrative order be issued to the effect that the select list prepared through any recruitment method specified in regulation 48 of the Regulations of the Council be followed for a period of one year extendable where necessary by six months with the approval of the Director.

The Establishment Committee recommended the acceptance of the Group Insurance Scheme in principle as proposed in the communications of the Life Insurance Corporation.

It was considered necessary to study in depth the question of career advancement of the academic staff.

The Establishment Committee recommended that Special Casual Leave be granted to the employees of the NCERT to cover the bare minimum time for travel and day of the interview or tests when staff of the Council attend interview/test conducted by the Council in places other than their headquarters. It was advised that statistics of such Special Casual Leave for a year might be presented after one year to the Establishment Committee for review of this recommendation.

#### THE ANNUAL GENERAL BODY MEETING OF THE NCERT

(12 December 1981)

During discussion, the need for stocking adequate quantity of paper, so as to ensure that no difficulty is experienced in bringing out textbooks in time, was emphasized. The General Body approved the draft Annual Report of the Council for the year 1980-81, presented to it by the Executive Committee.